The Fun of Owning a Junior: Telecommunicating

By John E. Wilson

Following a printer, probably the most commonly acquired peripheral for PCjr owners is a modem. At the same time, there is a lot of uncertainty about modems and questions about what to do with one after it is installed. There are a number of factors that make modems more complicated to use than other computer peripherals.

First of all, you must have a telephone outlet that is close enough to be connected to your computer. Usually this is not a problem, but if you don't have a telephone, or if it is too far away to connect to your computer, then a modem will not do you any good at all.

Secondly, you must have an external source to dial up and connect with. Just one modem, by itself, is not much good. The external source can be another computer, a bulletin board, or a commercial information service such as CompuServe, The Byte Information Exchange (BIX), or Prodigy. Often, in fact usually, there is a per-hour charge for the external source. If your external source is in another town you will have long distance telephone costs also.

Finally, you have to obtain and then learn to use some sort of communication program. There is no shortage of good communication programs with reasonable prices, so obtaining the software isn't usually a problem. Learning to use the program, though, can be a problem because you will need to go on-line, with the potential costs staring at

In This Issue:

PCjr Lives!

"Whaddaya mean -- Abort, Retry, Ignore?"

you, in order to practice.

Those on-line charges make many people, including me, very nervous when using a modem. I can always imagine getting hung-up on Compuserve and running up a massive connect time bill. It has never happened, but I usually first write a plan showing every step I intend to take. I also make sure that a list of all of the commands, with the one to exit printed in red, is in front of me.

To ease your trip into the world of telecommunications, we will take a look at modems and communication programs which are suitable for use with the IBM PCjr. In this article we'll cover the basics of modems, and give you some tips on choosing one for your Junior. We'll explain some of those mysterious terms associated with modems, such as: start and stop bits, parity, and duplex. An article last month covered the software side of telecommunications using the very popular Procomm, a shareware program available from many sources (Including the jr Newsletter Software Store).

WHAT ARE MODEMS?

Modems are devices that enable a computer to use the standard telephone system to send data or receive data with another computer. The telephone system was designed to transmit voice signals from one person to another. These are audio signals in analog form, meaning that they are continually variable waves over a range of frequency and intensity. Computers do not understand analog signals. They are strictly digital devices, under-

Beginner's Corner

Tips On Using PKZIP
By Albert Allen (Oowl Software)

Our users group has used the PKZIP110 packing programs for the longest time and we see people having trouble using these programs to pack/unpack and store their programs. (PKZIP is Disk #104 in the jr Newsletter Software Store) Here are some tips that may help those struggling to use an archiver program. PKWare's archive program is in two parts, pkzip and pkunzip. ARJ is a single program archiver using one program (ARJ) to both pack and unpack files. With pkzip you can pack files together with the "-e" switch;

pkzip -e zipfilename

You can move the files from a designated location to the zipfile with the "-m" switch. This is useful when you wish to delete all the files from the source after the zipfile is made;

pkzip -m zipfilename

You can store paths to files and the directory names which contain the files with the "-p -r" switches. This is extremely useful for backing up small hard drives or for programs that have subdirectories as a part of them;

pkzip -rp zipfilename

The p and r switches should be used together. Often zipfiles are larger than the diskette storage capability to store them. A nice little shareware program called SLICE allows a large zipfile to be copied across many diskettes and it creates a program called SPLICE on the first diskette which reassembles the large zipfile again.

Pkunzip is the unpacking program. You can extract files to any location, disk or hard drive. To unpack a program use the "-x" switch;

pkunzip -x zipfilename

This unpacks to the same location where the zipfile is presently located. To unpack a file to a different location just include the destination location;

pkunzip -x zipfile a:(location is drive a)

If you wish to just see the files in the zipfile you can use the "-c" switch;

pkunzip zipfilename -c

If the screen scrolls by two quickly add the "m" option to the c switch to pause the screen when full and prompt for more;

pkunzip zipfilename -cm

Sometimes in copying files between computers zipfiles become damaged or corrupted. You can test your zipfile with the "-t" switch;

pkunzip zipfilename -t

The most important switch is the "-d" recreate directory paths. Use this switch when a zipfile has been packed with the -rp switches;

pkunzip -d zipfilename

Some programs need to be stored with a disk volume label and the program will not INSTALL or function without unpacking the disk volume label placed on the disk as well, this is done with the "-$" switch;

pkunzip -$ zipfilename

The "-$" switch should be used with pkzip to store a disk volume label also. Of course should you need help with

Questions and Answers

By Rene Waldron
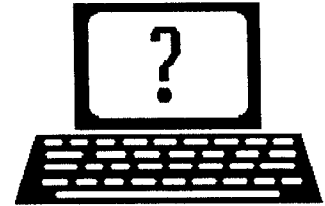
EDITOR'S NOTE: jr Newsletter gets questions in the mail from PCjr owners every day. So many, in fact, that we apologize for not being able to answer them personally. This Questions and Answers column is our way of responding to the questions readers ask about their PCjrs. We can't answer all of the questions 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. My problem is with printing. I can't get the lines to stay aligned as they are in Writing Assistant on the screen. This is all in ASCII format. Changing the margins seems to be of no help. Enclosed are a couple of printed sheets so you can see the results.

Rev. L. Ristow, Pecos, TX

A. From the appearance of the printed examples, we see two possibilities, and these two have been around for a long time.

One: The printer should be checked for its operation with the acknowledgement of BOTH a Carriage Return (ASCII 13 = CR) and a Line Feed (ASCII 10 = LF) but in context with whatever the word processor sends to it. Some printers require BOTH a (CR) and a (LF) for the print head to make an actual line feed, others just assume the line feed whenever only the (CR) is received. This is usually set by a DIP switch on (actually, inside) the printer. Your printer manual will have to be source for the location of the switch and the correct information. For the switch setting ignore the part about emptying the buffer and printing the line. The simplest thing to do is to try the switch in both positions. Tandy printer defaults are set up just the opposite of everyone else's and have been a problem from day one. Their own word processors are set up for the Tandy printers and this makes a double problem if the software is used with, for example, a standard IBM or Epson. Luckily, both the printer and the software can be re-configured.

Two: Word processors, though they insist they save and/or print in "ASCII" or "non-document, non-formatted or non-something or other", they do NOT all do this in a way which is standardized! This use of the term ASCII just means that any characters Not in the ASCII set of those numbered from 0 to 127 will be filtered out. This also means all those with the "high bit set" as much documentation refers to it. In your case it looks like the printer is returning and line feeding at 78 characters, with space in the buffer for the CR and LF. Now another signal (the word processor's, probably) at the 80 character point does ANOTHER CR and LF so only one letter on the next line gets printed and the printer starts a third line.

You say that changing the margins (in the word processor...) makes no difference but we suspect that if you make a drastic enough change i.e. leave 10 spaces at the left for a margin and set a maximum of 60 characters per line which will allow a ten space margin on the right, you'll be all set. The idea is to have the word processor send all the necessary signals and NOT to rely on the automatic 80 character limit of the printer to do the line feeds and carriage returns for you. We feel that the word processor IS sending the proper signals, because short (less than 80 characters) lines are properly printed and ended and the paper is fed and a new line starts correctly. Often, word processors have one kind of on-screen formatting and another, completely different, set of controls for the printer. The margins on-screen may have nothing to do with the margins as printed on paper. Check the printer set-up menu in the word processor one more time. One last hint: ALWAYS be sure you actually press the <Enter> key when you want to start a new paragraph or line! DO NOT use the arrow keys because many word processors do not bother with adding anything at the end of a line unless a new paragraph is started. Just because the appearance of the text and the cursor is where you want it on the screen does not mean that the previous line has a CR and/or a LF to send to the printer. If you can make these control characters visible on the screen, by all means do so, you'll really be surprised at how they can get scattered around, away from their proper places. One other thing: You should be able to use Writing Assistant in its normal formatted mode to print properly. You don't have to do the ASCII thing if you're printing directly from the processor.

Q. On one machine, with 2 meg RAM, I was able to write a long text file and when I try to load it into my home machine I get the message "File too long" and I realize it's the limited RAM causing the difference. I use Professional Write in both places and am wondering if I can "cut up" this file into smaller pieces for use at both locations.

E. Yeomans, Cambridge, MA

A. Yes, you can do just that, but you'll have to do it on the machine which wrote the file in the first place. The

Questions and Answers
(Continued from page 3)

routine is to fire up the word processor without "getting" any file at all. On the blank screen type "Part 1" and save this with a name such as PART.ONE. Bring down the File Menu and "erase" this from memory.

On the newly blanked screen, type "Part 2" and do as above, saving this little text file as PART.TWO and "erase" this from memory as well. You should now have tiny text files on disk called PART.ONE and PART.TWO.

Now "get" the long file into memory.

Press Ctrl-T to mark the Top of a block. Using PgDn or the down arrow key, move the cursor marking as you go, to about half-way through the file. At any likely place which you'll remember, press F-10. Choose "Copy" (do NOT choose "Cut") from the menu and instantly a copy of the first half of the file is in the clipboard!

Next, "Get" the file named PART.ONE. (The long file will be "erased" from memory automatically.) Now just press Ctrl-P and the contents of the clipboard (the first half of the long file) will be in PART.ONE but still only in RAM. Save it to disk immediately. You can delete the little reminder "Part 1" at the top of the file now if you don't need it.

Repeat this procedure by getting, marking and copying the second half of the long file to PART.TWO. Save this to disk and you're done. You may choose to delete the long file, but be absolutely sure the two smaller files are OK first. If you still can't load these two smaller files individually at home you'll probably find they are larger than 64k each. In that case you will have to cut the long file into quarters or even smaller. Without industry standard expanded memory the word processor tops out at about 64k for file size. We tend to keep to smaller files, feeling they are better for maintaining organization and doing searches, anyway.

Q. I have tried purchasing Prodigy twice and have had to return it both times because I could not get the patch to fix the program to run on my jr. Enclosed is a printout of the debug routine and, as you can see, it is significantly different than the published response. Do you have any advice?

W. Leary Rhinebeck ,NY

A. All patches which use debug, whether supplied by us or others, have an important caution as part of the documentation.

It goes something like this: "The numbers MUST match those shown in this example, or you are working with a different version than this patch is designed for."

Whenever the response or the expected addresses or the data at a given address differ from that in the example, there's trouble. Software is continually being updated and
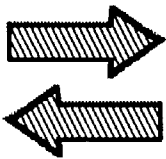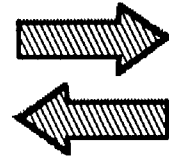
Some Keyboard Tips

The "bus" keyboard with function keys on the left and on the top will work with Oowl Software's keyboard adapter. Zeos and Northgate keyboards will not.

The "bus" was a number pad and a cursor pad. I was looking for a keyboard with the function keys on the left and the "bus" has the bonus of having them on top also. It also has dual Alt and Ctrl keys.

John Vincent, Milford, MI

Tip for Solving Problems with Air Transport Pilot

Editor's Note: The following article resulted from a tip uploaded to the JR-BBS, the bulletin board operated by the Metro PCjr Users Group.

Dan Seabert, a flight simulator enthusiast and user group member from New Jersey, left this tip on the JR-BBS for those trying to use Sublogic **Air Transport Pilot** on the PCjr.

Our previous review had noted serious difficulties getting things like flaps, spoilers, etc. to work correctly. This seemed like a major stumbling block, but Dan has found an ingenious way around it. The following is the gist of his BBS message.

ATP works on the PCjr in 16 colors on PCjr's with the Tandy mod installed or in regular, 4 color CGA mode. When you run it under Tandy mod, the program loads for the Tandy keyboard (not surprisingly). Not finding it, many keyboard functions cannot be used. If you run in 4 color CGA, the full keyboard command sequences do work, but who wants only 4 colors? How to solve the keyboard problem and run ATP in 16 colors as well?

The solution obviously lies in "keyboard drivers," programs on the disk that support various types of keyboards. The ATP manual says that there are no individual drivers, but there actually are. On disk #2 (assuming you have the 3 1/2" version, elsewhere on the 5 1/4" version), there are two keyboard drivers, KB1.KBD and KB2.KBD. KB1 is for IBM 101 key keyboards while KB2 is for Tandy keyboards. All you have to do is delete the Tandy driver, KB2.KBD, and rename KB1.KBD as KB2.KBD in its place using the DOS "REN(ame) command. From then on, ATP will use KB2.KBD (the IBM keyboard driver) although it will think that it's using the Tandy driver. Who said people weren't smarter than computers!

Dan reports that, with this simple fix, all ATP functions are available. That said, it should be noted that using ATP on a first generation PC such as the junior is still not entirely satisfactory. Performance is slow and somewhat jerky -- you will need to learn how to anticipate the aircraft's movements and "lead" it more than you would on a faster machine. Dan says that on his PCjr, equipped with a jrExccelerator, changes in aircraft altitudes lag behind joystick or keyboard input. But, he has made successful landings, no mean feat on any machine in this very realistic simulation of flight in a Boeing 737, 767, 747, Airbus or Shorts 360 Skyvan. A 3 1/2" disk drive or hard disk is almost essential as well to avoid too many disk swaps. It's still a lot of fun, though, and well worth the $40 or so it costs. Thanks, Dan, for this PCjr tip!

Art & Music

JR MUSIC MACHINE. If you want to write and play music on your PCjr, this program allows you to do it. Displays music as you write it using jr's 16 colors, and plays music back in three voice harmony. Features allow you to adjust key, tempo, note values, etc. Color Display required. 128K ok. (Disk #62)

PCJR MUSIC SAMPLER. A collection of classical music "concerts" performed with great precision to produce the highest quality sound you've ever heard on your PCjr. Disk includes a separate program to activate Junior's sound generator before running game software to get highest quality sound. 128K ok (Disk #119)

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. Requires Basic Cartridge. (Disk #39)

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)

PCJR MUSIC SAMPLER. A collection of classical music "concerts" performed with great precision to produce the highest quality sound you've ever heard on your PCjr. Disk includes a separate program to activate Junior's sound generator before running game software to get highest quality sound. 128K ok (Disk #119)

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)

PRINTMASTER LIBRARY. Two disk set full of graphic images for use with PrintMaster. (Disk Set #3 - 2 disks, $10)

Telecommunications

BOYAN. Selected Best of the Year by PC Magazine, this outstanding telecommunications program will astound you with its smooth functioning and innovative features. Supports all protocols. Need 384K. (Disk #61)

JRTELE V2.1. Excellent, easy-to-use telecommunications software made especially for PCjrs, and the PCjr modem. Ideal for beginners, but has enough power and features for most users. Supports 300 and 1200 baud. PCjr internal or Hayes compatible external modems. 128K ok. (Disk #86)

PROCOMM PLUS TEST DRIVE. This is the upgrade of the already powerful and popular Procomm V2.42. It's got many new features including an improved host mode, context sensitive help screens, more powerful scripting. In addition to its power, it's very easy to use. (Reviewed 3/90) 256K (Disk #108)

Troubleshooting On Your Own
From the Baltimore PC Users Group

Listed below are some of the most common computer quandaries:

Check outlet for power If the LED display on your computer and monitor are not lit, plug a lamp, clock or other electrical device into the outlet to see if you've got juice.

Check all external connections Are the cables and power cords securely seated? Are they plugged into the proper ports and outlets?

Check the software drivers Do you have the correct video and printer drivers installed? Are they loaded?

Check features and functions available Is the hardware or software capable of doing what you're attempting? Look in the index of the appropriate hardware or software manual to find out.

Check your data file With software, create a sample file to try the function. If you can, try running the file on another machine.

Check the software installation Are you sure you didn't answer a question incorrectly during setup and installation? Reinstall the software, then read the manual to make sure you're performing the function as instructed.

Check for variables Remove RAM resident programs and then try to run software. Restore them one at a time. Read the manuals and READ.ME files for more information.

Check out Before pronouncing your system dead, try turning it off and back on. Just doing a warm boot (also known as the three-fingered salute: Ctrl-Alt-Del) might not work the same magic as a cold boot, where you turn the system off and then on again. Sometimes a device inside your PC gets a bad instruction and locks itself up. Removing power forces it to reset. If you still can't revive your system, research as best you can ... then reach for the phone.

The final frontier If you can identify the problem, where do you turn? The maxim, "if all else fails, read the manual," proves rewarding, if annoyingly obvious. Tech support departments solve many problems, especially software related ones, using procedures described in manuals. In fact, software support specialists often end up reading you the printed step-by-step instructions over the phone.

Printer Control with BASIC and ASIC

By John King

EDITOR'S NOTE: This article is the second part of a series started in our March 1991 issue. We somehow forgot to follow up with this part until now. A few readers wrote to remind us, and we thank them. Sorry for the delay.

Last month (Ho, Ho! -- ED) we began a discussion of how to control your printer. We discussed control codes, which are listed in the manual that came with your printer, and how to send them to your printer using the ECHO and COPY commands. In this article, we'll cover more sophisticated ways to control your printer with BASIC and ASIC programs. The control codes in the examples will be for Epson compatible printers. If you have a different printer, substitute the appropriate codes from your manual.

BASIC is available for PCjrs in a cartridge. Unfortunately, cartridge BASIC is frequently incompatible with ramdisks, memory resident programs, and PCjr systems with more than 128K. A solution is to use the BASIC from your DOS disks. Rename BASICA.COM to PCBASICA.COM, or any name other than BASIC or BASICA. If you don't have the BASIC cartridge, you'll have to patch BASICA.COM first to make it run before you rename it.

A better solution is to use ASIC which is a shareware BASIC compiler written by David Visti. ASIC is now available from most shareware vendors and many BBSs, and from the jr Newsletter Software Store (Disk #122). I greatly prefer ASIC because it creates COM files which run without problems on all IBM PC compatible computers. Furthermore, ASIC is easy to use with commands that are almost identical to BASIC.

SENDING CODES IN BASIC

Let's look first at how to send control codes to your printer using BASIC. The statement we will use is LPRINT. This is very similar to the PRINT command which sends characters to the display, but LPRINT (for Line PRINTer) sends characters out the parallel port to the printer. For both PRINT and LPRINT the text characters to be sent are enclosed in double quotes. The following two lines will display ABC on your monitor and print ABC on your printer.

```
PRINT "ABC";
LPRINT "ABC";
```

A semicolon at the end of the line prevents a carriage return and line feed from being sent. LPRINT with a semicolon sends printer control codes without advancing the paper. ECHO always advances the paper because it sends a carriage return and line feed.

In BASIC, it's also easy to send ASCII characters which cannot be typed on the keyboard. All we need to know is the decimal ASCII value of the character. This is usually listed in your printer manual. For instance, to send the Escape character, ASCII 27, followed by E to turn on bold printing, use this statement.

```
LPRINT CHR$(27);"E";
```

The CHR$ function converts the ASCII code to its character equivalent. Note that a semicolon is used to separate the characters and to end the line.

We can create a small program to send the desired printer codes so that we won't have to type them in every time. Here is a BASIC program to put the printer into compressed print mode, 17 characters per inch. You can write this in BASIC or with any word processor which can save the file is straight ASCII. Save the file with the name COMPRESS.BAS. Note that each line must be numbered, but you can skip numbers. This makes adding lines possible without renumbering every time. The necessary printer code is ASCII 15.

```
10 REM   Turn Compressed Print ON
20 LPRINT CHR$(15);
30 PRINT "Compressed Set";
40 SYSTEM
```

The REM statement does nothing. It is just information about the program. LPRINT sets the printer, and PRINT tells us what was done. The SYSTEM statement ends BASIC and returns to DOS.

If you are using BASICA.COM renamed to PCBASICA.COM, be sure it is available and that your printer is turned on. When you want to run the program, give this command at the DOS prompt.

PCBASICA COMPRESS

If you use only a few printer commands, you can create a small program for each one. Each will take up 1K on a floppy, but the BASIC interpreter will also have to be available. That will fill another 26K or more depending upon your version of DOS.

SENDING CODES IN ASIC

Now, let's use ASIC for the same type of printer control. ASIC statements are like BASIC. The PRINT "ABC"; and LPRINT "ABC"; statements shown previously work exactly the same way. However, you can't do two operations on one line in ASIC. For ASCII characters such as Escape, the CHR$ function must be used and then the result LPRINTed. Here is the code to send Escape F to turn bold printing off. The $ after P identifies it as a string variable. You can use one or more letters for string variables.

```
P$ = CHR$(27)
LPRINT P$;
LPRINT "F";
```

There are no line numbers in ASIC. This makes editing much easier than in BASIC. Labels are used for GOTOs

Software

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 log-on, 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)

TELIX V3.12. Powerful, yet easy-to-use telecommunications program, with variety of built-in transfer protocols. Features Z-Modem--one of the most efficient and reliable transfers available. If you're disconnected while downloading, Z-Modem will pick up where it left off when you next log-on, thus saving connect time and telephone toll charges. Need 180K free memory after loading DOS and either two floppy disks or a floppy disk and a hard drive. (Reviewed 7/91) (Disk Set #4)

Data Bases

3 X 5. An information management program that works just like a 3 x 5 card file. It offers speed, versatilityy 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)

FILE EXPRESS. (V4.22) Very eàsy to use database manager. Extensive menus and prompts to guide you. Excellent choice for maintaining mailing lists, etc. Many powerful features. 256K (Disks #83 and #84)

MR. LABEL. Extremely versatile, this software enables you to make labels ranging from the very simple to the very sophisticated. It's the best of many we've tried. 128K ok. (Disk #97)

NAMEPAL. An excellent utility program for maintaining and printing name and address lists, address books or mailing labels. Keeps business and personal references and allows user to maintain free-form notes as well. Requires 128K Memory. (Disk #70)

and GOSUBs, but we won't need them for this first simple program.

Let's create a small program to turn compressed print off. The code we must send is ASCII 18. You can write the program in the editor that comes with ASIC or any word processor that can save in ASCII. Save this file with the name COMP-OFF.ASI. ASI is the extension recognized by the ASIC compiler.

```
REM   Turn Compressed print OFF
P$ = CHR$(18)
LPRINT P$;
PRINT "Compressed Turned Off"
END
```

The best feature of ASIC is that you can create a DOS-executable COM program with the compiler, ASICC.EXE. Compile COMP-OFF.ASI with the following command at the DOS prompt. ASICC.EXE must be available.

ASICC COMP-OFF

When you exit from the compiler, COMP-OFF.COM will be on the disk. When you want to run the program, just give the command COMP-OFF. ASICC does not need to be available.

If you use only a few printer commands, it may be practical to create a small COM file for each one with ASIC. Each will take up 1K of disk space, but at least you won't have to have the large BASICA.COM file on the disk.

A PROGRAM WITH CHOICES

Instead of several small programs, each of which controls one printer function, let's write a larger program which can turn several functions on or off. Our strategy will be to display a menu of choices and wait for the user to key in one or more selections. In this example, we'll offer only four choices: 1. Compressed ON, 2. Compressed OFF, 3. Set Perfskip, and 4. Release Perfskip. You can modify this example or write your own version with more or different choices.

Let's go through the program and examine the major sections. You can read either the BASIC or ASIC code, both function identically.

1. Set up the menu. Set 80 column mode and clear the screen; set the color to cyan on black (COLOR 3,0); place the menu text on the screen with the LOCATE row,column and PRINT statements. We'll use the Escape key to quit the program after we've made our choices.

2. Get user's choice. Place the request for input on the screen in yellow on black with the LOCATE, COLOR 14,0 and PRINT statements.

3. Get the next keystroke with the INKEY$ function. The program loops back to the A$ = INKEY$ line because of the IF A$ = "" THEN... statement as long as A$ is null (""), meaning no key has been pressed.

4. Branch based on input. When a key is pressed, test A$ to see what it was by the next five IF A$ = ... statements. Quit to DOS if the Escape key (ASCII 27) was hit or jump to the appropriate "Set printer:" section of the program if 1, 2, 3, or 4 was hit.

5. Error check. If any other key was struck, sound the beeper, and loop back to the choice section. This is what happens if you hit 5, A, Fn 1, or Enter.

6. Set the printer. These next four sections each LPRINT a different code to the printer if selected. Each section ends with a jump to the message section.

7. Display message. Place the "Printer Set to..." message below the request for input and color it green on black with the LOCATE, COLOR 2,0, and PRINT statements. The number of the choice is displayed by the PRINT A$; line. Return to the choice line for further input.

PRINTSET.BAS

PRINTSET.BAS is the BASIC code for our program. Note the KEY OFF statement in the first section. This turns off the line of Function key assignments

at the bottom of the screen if BASIC is started and then PRINTSET.BAS is loaded and run. If the command BASICA PRINTSET is given at the DOS prompt, the KEY is automatically OFF. The program ends with SYSTEM to return to DOS.

```
10  REM PRINTSET.BAS, BASIC Printer Control
20  REM Set up menu
30  KEY OFF
40  WIDTH 80
50  CLS
60  COLOR 3,0
70  LOCATE 5,20
100 PRINT "1. Compressed ON    2. Compressed OFF";
110 LOCATE 7,20
120 PRINT "3. Set PERFSKIP 12  4. Cancel PERFSKIP";
130 LOCATE 9,33
140 PRINT "Escape to Exit";

500 LOCATE 12,23
510 COLOR 14,0
520 PRINT "Enter the Number of Your Choice: ";

530 REM Wait for a key press
540 A$ = INKEY$
550 IF A$ =`` '' THEN 540

560 IF A$ = CHR$(27) THEN 5000
570 IF A$ = "1" THEN 1000
580 IF A$ = "2" THEN 2000
590 IF A$ = "3" THEN 3000
600 IF A$ = "4" THEN 4000
610 REM If not a good choice, sound beeper
620 BEEP
630 GOTO 500

1000 REM Turn on Compressed mode
1010 LPRINT CHR$(15);
1020 GOTO 4500

2000 REM Turn off Compressed
2010 LPRINT CHR$(18);
2020 GOTO 4500

3000 REM Set Perfskip 12
3010 LPRINT CHR$(27);"N";CHR$(12);
3020 GOTO 4500

4000 REM Cancel Perfskip
4010 LPRINT CHR$(27);"O";
4020 GOTO 4500

4500 REM Message
4510 LOCATE 14,32
4520 COLOR 2,0
```

(Continues on page 10)

Software

(Order form on page 23)

GAMES FOR EARLY LEARNERS. Young children like Teach Tot's alphabet and counting games. Other activities teach spelling and telling time. For Preschool through grade 3. Cartridge BASIC, 128K. (Disk #63)

HAPPY GAMES. Written by a mother to help her own preschoolers learn on their PCjr, this set of colorful educational games makes learning fun. Teaches colors, shapes, logic, eye-hand skills. 256K and joystick required. (Disk #88)

LANGUAGE TEACHER. Helpful exercises for both French and Spanish language students. Hundreds of vocabulary words and verb conjugations. 128K ok. (Disk #72)

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. Need Cartridge BASIC (Disk #42)

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)

SPEED READ. If you'd like to double or triple your reading speed, and increase comprehension as well, Speed Read can help you do it. It provides instruction and exercises designed to break bad habits and improve reading efficiency. 256K (Disk #90)

SPELLING BEE. A game that builds spelling skills from Grade 3 level to adult. You are an Olympic athlete representing your country. Excellent color graphics. Four skill levels from very easy to very difficult words. Fun way to become a spelling champ! 256K ok (Disk #82)

STUDY AIDS. Three great programs to help students. PHLASH - a computerized version of flashcards which you make and use for any subject. Multiple choice, true/false, and/or fill in blanks. FRACTIONS - a series of interactive exercises in fractions (many levels). And PHRASE - a program that picks out examples of bad writing in any document and suggests improvements. 128K ok (Disk #92)

```
4530 PRINT "Printer Set to ";A$;
4540 GOTO 500

5000 REM Position cursor below Message
5010 LOCATE 14,1
5020 SYSTEM
```

This ASCII version of PRINTSET.BAS is 1,139 bytes long. If you save the program from within BASIC, the tokenized version is 878 bytes. With the BASIC interpreter, PCBASICA.COM, and PRINTSET.BAS on a floppy disk, the program loads in 6.8 seconds. With both on a ramdisk, the program loads in 2.0 seconds.

PRINTSET.ASI

PRINTSET.ASI is the ASIC program code. Note that the KEY OFF and CLS lines are missing. There is no KEY in ASIC, and WIDTH 80 also performs a clear screen. There are no line numbers. Labels (CHOICE:, WAIT:, COMPRESSED:, etc.) are used to identify the destination of GOTOs and IF...THEN... jumps. There is no BEEP in ASIC, so the more general SOUND statement is used instead. The code ends with an END statement.

The next to the last line (LOCATE 14,0), indicates a minor difference from BASIC, in which rows are numbered 1 to 25 and columns 1 to 80. Version 1.0 of ASIC uses 0 to 24 and 0 to 79. The numbering will be consistent with BASIC in version 2 of ASIC.

```
REM PRINTSET.ASI, ASIC Printer Control
REM Set up menu
WIDTH 80
COLOR 3,0
LOCATE 5,20
PRINT "1. Compressed ON      2. Compressed OFF";
LOCATE 7,20
PRINT "3. Set PERFSKIP 12   4. Cancel PERFSKIP";
LOCATE 9,33
PRINT "Escape to Exit";

CHOICE:
LOCATE 12,23
COLOR 14,0
PRINT "Enter the Number of Your Choice: "";

WAIT:
REM Wait for a key press
A$ = INKEY$
IF A$ ="" THEN WAIT:

ESC$ = CHR$(27)
IF A$ = ESC$ THEN QUIT:
IF A$ = "1" THEN COMPRESSED:
IF A$ = "2" THEN ENDCOMPRESSED:
IF A$ = "3" THEN SETPERFSKIP:
IF A$ = "4" THEN ENDPERFSKIP:
REM If not a good choice, sound beeper
SOUND 500,40
GOTO CHOICE:
```

```
COMPRESSED:
REM Turn on Compressed mode
P$ = CHR$(15)
LPRINT P$;
GOTO MESSAGE:

ENDCOMPRESSED:
REM Turn off Compressed
P$ = CHR$(18)
LPRINT P$;
GOTO MESSAGE:

SETPERFSKIP:
REM Set Perfskip 12
LPRINT ESC$;
LPRINT "N";
P$ = CHR$(12)
LPRINT P$;
GOTO MESSAGE:

ENDPERFSKIP:
REM Cancel Perfskip
LPRINT ESC$;
LPRINT "O";
GOTO MESSAGE:

MESSAGE:
LOCATE 14,32
COLOR 2,0
PRINT "Printer Set to ";
PRINT A$;
GOTO CHOICE:

QUIT:
REM Place cursor below MESSAGE
LOCATE 14,0
END
```

PRINTSET.ASI is 1,133 bytes and compiles to PRINTSET.COM which is 1,496 bytes. PRINTSET.COM loads in 3.8 seconds from a floppy but in less than 0.4 seconds from a ramdisk. Because PRINTSET.COM takes up so little space, it is practical to keep it on a ramdisk for quick access at any time.

Here's one final tip. In BASIC, you can use LPRINT CHR$(0) to send Hex 0, the null character. However, in ASIC, p$ = CHR$(0) followed by LPRINT P$ sends nothing to the printer. The only solution, if your printer allows it, is to send the code to turn the Most Significant Bit Off (Escape =), send ASCII 128, and then send Cancel MSB Off (Escape #). With MSB off, 128 is read as 0 by the printer. Check your printer manual for more information.

THE NEXT STEPS

Using PRINTSET as a model, build your own program

Jr Can "Fake" Expanded Memory!

MEMSIM is an Expanded Memory Manager (EMM) which emulates the LOTUS/INTEL/MICROSOFT (LIM) Expanded Memory Specification (EMS), version 3.2. This is normally accomplished through expansion hardware. However, MEMSIM creates the expanded memory by using a swapfile it makes on the hard drive. The MEMSIM driver instructs your computer to treat this file as Expanded Memory.

The use of MEMSIM to emulate Expanded Memory has several trade-offs. The extra "memory" gained may be enough to enable a computer with up to 640K of "real" memory to run a Lotus 123 spreadsheet which requires more than meg or two of memory. However, because the emulated memory is actually a disk file, the effective speed of the computer will be severely reduced as the computer reads and writes through the disk file each time an action is specified.

The larger the amount of simulated memory you configure, the larger the swap file and the more the program will slow the system.

Because of the heavy trade-off in operating speed for the extra memory, this program is not suited for routine use. It will, however, be an invaluable tool when you have a large spreadsheet which will not load within the memory limitations of your computer.

You could just boot up Jr with a special floppy disk configured with MEMSIM in the CONFIG.SYS. Although the computer will run painfully slow, it will load the spreadsheet-- a feat otherwise impossible.

There are two versions of MEMSIM, one for 80286-based machines and another for machines based on 8086, 8088, and V-20 microprocessors.

MEMSIM does not treat any extended memory as expanded memory. However, any extended memory may be used as a disk cache, a RAM DISK, or with an extended memory manager.

MEMSIM is Disk #135 in the Software Store, page 23.

to select the printer features you use the most, fonts, line spacing, margins, etc. You can have 10 choices using numbers in the menu and more if you include letters. Remember to test for both the upper and lower case letter if you use this approach.

You might want to make the program able to accept values for line spacing, margins, or the number of lines to skip in Perfskip. This requires somewhat more sophisticated programming than just a choosing from a menu, but it increases the flexibility of your program. Finally, you might consider visual improvements such as putting a box around the menu.

That's it for printer control. I hope you have fun programming and get the most desirable output for everything you print.

THE WORLD V.2.6. Fascinating way to see the world on your PCjr! Just use the pointer to move over full screen map of world and press Enter to zoom in on any region, country or city. Many features. Even shows you hurricane tracks by year. 256K Reviewed 2/90 (Disk #105)

TIME TRAVEL IN HISTORY. A maze adventure game in which you have to answer questions about different periods of American History in order to get gold pieces--and save your life! 128K (Disk #21)

TYPING INSTRUCTOR. Disk contains both PC-Touch, a great typing exercise and speed testing program, and Touch Typing Tutor, a combination of lessons, including finger positions, speed tests and a typing game. 128K ok. (Disk #18)

WIZQUIZ. The Wizard keeps track of your progress in solving math problems that range from elementary level through fractions and negative numbers. Extensive exercises, with scores and times recorded under each "player's" name. Compete against your personal best as you improve your skills. Grades 4 through adult. 128K ok. (Disk #95)

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)

WORDCRAZE. Create your own word search puzzles and print them out for friends and family. Just make the list of words you want in the puzzle and it's printed out for you. Or try Quotefall, a unique type of scrambled word puzzle. And then there's a high-level version of Hangman. Just try escaping from the noose in this one! 256K (Update review 8/90) (Disk #87)

WORD GALLERY. Help your child learn to read with this colorful program that presents pictures and words to match. It's fun to use, has four levels, the last with a missing letter for the child to fill in for beginning spelling. 256K (Reviewed 4/91) (Disk #125).

MATH & LOGIC GAMES. Designed for kids in Grades K-6, but fun for kids of all ages. Six different games can be played against the computer, or with another human. Each game teaches a different logic and/or math skill. (Reviewed 5/91) 256K required. (Disk #126)

Games

ADVENTUREWARE. Six different text adventures with titles like "Island of Mystery," "Terror in the Ice Caverns," and "Moon Mountain Adventure," all test your wits and take you to strange mysterious places. 128K (disk #14)

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

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. Need Cartridge BASIC (Disk #31)

JRCONFIG Program Stops Computer Virus!

(EDITOR'S NOTE: The following article of interest to all PCjr users appears in the current catalog of PC Enterprises, the PCjr specialists in Belmar, N.J.)

Most PCjr users already know about Larry Newcomb's contribution to the PCjr community. (JRCONFIG is on our disk #65 Jr Power Pack II, and #99 PCjr Autosetup.--ED.) Did you also know that Larry's JRCONFIG program can also warn you when a computer virus has infected your computer?

That's right! Recently PCE started to receive countless reports from PCjr users throughout the country all having the same problem. Most had 640K of memory and had suddenly started to receive a Top of DOS=638K message.

The problem was a computer virus. Computer viruses can destroy data on your hard drive, erase or damage programs that you run, or in some other way interfere with the normal use of your computer.

Viruses are created by sick people who get enjoyment out of damaging data on other people's computers. They hide their viruses inside games or other programs which appear to be harmless--then share these programs with other computer users.

If someone gives you a program which is infected with this specific virus the virus would discretely copy itself onto the boot sector of your hard drive. Once this has happened the virus is automatically loaded into your computer's memory each time your computer is started.

If your computer contracts this virus, it would immediately copy itself onto each and every floppy diskette that you insert into your drive (except those that are write protected). As you might imagine, the virus spreads quickly and can be extremely difficult to get rid of!

Fortunately the sick individual who released this virus never suspected it would be run on a PCjr with Larry's JRCONFIG program. While the virus may go undetected as it spreads from IBM PC to PC, PCjr users who use JRCONFIG are instantly warned. The Top of DOS=638K message tells you that another program (the virus) has taken over 2K of your computer's memory. This allows PCjr users to re-boot from floppy and back up their data before damage can be done.

If you ever suspect that a virus has infected your computer immediately turn the computer off--then re-start with a floppy diskette which could not possibly have been infected by the virus. Back up important data to floppy diskettes, then re-format your hard drive--or find a skilled computer wizard who can locate and surgically remove the virus.

The JRCONFIG program was designed to permit PCjr's to recognize memory above 128K. It also permits PCjr users to set up and use a Ramdisk as well as a seemingly endless list of other features and options with one easy to use device drive. We think every PCjr owner should have and use Larry's

program.

EDITOR'S NOTE: JRCONFIG is User Supported Software. This means the program's author doesn't receive a penny unless users make voluntary contributions. If you find the program useful, Larry has asked that you send a $5 ore $10 contribution. We strongly encourage those who use JRCONFIG to make this contribution. JRCONFIG has already made a significant contribution to the PCjr community and Larry Newcomb has never asked for very much. So let's be sure we keep Larry motivated to continue updating and improving JRCONFIG!

Send contributions to:
Larry Newcomb
9210 Adelaide Dr.
Bethesda MD 20817.

Effective Telecomm Tips

Many users have serious problems with line noise and with similar hazards while telecommunicating. Other problems are obvious to those who are experienced but not obvious to the novice. Here is where we will attempt to aid you in your problems in communication. Consider these tips when next you have a problem.

1) Line noise on phone lines usually appears in the form of spurious characters appearing without any input from your keyboard. When it is bad, simply hang up and dial right back and you may find a much cleaner line.

2) If you find yourself looking at what appears to be code then you are probably looking at ANSI control codes. Unless your system is able to support those codes, you will have to turn them off. Usually you can do this in your online user profile.

3) When your new internal modem does not work, the chances are it is in conflict with your mouse. Reset the modem and your communications package to work off COM2 and leave the mouse on COM1.

4) When calling a new board you may find that the system asks you for a password and you have never called there before. Remember that it might simply be someone else who has the same name as you so you will have to be identified with a nickname or shorten your first name.

When DISKCOPYing keep RAM Free

The time it takes to copy diskettes, when using the DISKCOPY command will be reduced if you keep your RAM memory free.

When you are DISKCOPYing, DOS transfers data from your source diskette into memory before dumping it to your target diskette. So if your memory is occupied there will be less space for the transfer, and the copying process will take more steps.

BUSHIDO. Test your skills in martial arts combat. Fighters kick, spin, duck, punch, etc. Requires 256K and keyboard with function keys (Disk #16)

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)

COMPUTER JOKER. Disk full of jokes, wisdom, and visual tricks to play on your computing friends. 128K ok (Disk #64)

DOUBLE TROUBLE. Two of the most challenging, highest quality arcade style games we've seen -- Amazing Mazes and Willy the Worm. Ten different mazes and five levels of play will tie your brain in knots. And Willy, who is the fastest, jumpingest worm you'll ever see, will beat you for sure! You can even modify Willy to give yourself more (or less) trouble. 128K ok. (Disk #68)

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)

DUOTRIS. Two great Tetris-like games on one disk. Similar to the popular Russian strategy game, both of the versions add new twists of their own. Written in Turbo Pascal, both are high quality games. 128K ok (Reviewed 8/90) (Disk #116)

GALAXY. One of the easiest to use word processors we've ever seen, Galaxy has all the features you need to write letters and do most word processing. It has many, but not all, advanced features. Its strength is its simplicity, with help menus always ready to assist you. You probably won't even have to read the manual. 128K ok. (Disk #69)

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

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

GAMES III. Kingdom of Kroz, an award-winning arcade action game. Go-Moku, a challenging Japanese strategy game, also known as Pente. Zigsaw, the first really good on screen simulation of a jigsaw puzzle. All three on one disk. 256K Reviewed 12/89 (Disk #101)

GAMES IV. Turbo-Car tests your skills at driving a fast car on a two lane highway. Can you keep from crashing? Return to Kroz is a colorful, exciting arcade-strategy sequel to Kingdom of Kroz on Games III. Trek Trivia tests and expands your knowledge of Star Trek. Three great games on one disk! 256K Reviewed 2/90 (Disk #106)

Purchasing a Second Junior

by Loule Levy
Editor, Eugene, OR PCjr Club Newsletter

As fall approaches, many of us feel that winter is just around the corner. It will soon be time to come indoors from the summer heat and think about things to do inside now that the weather is becoming more brisk. The first thing we do in our home is crank up the Junior and see how he made it over the inactive summer months. If you belong to the Eugene PCjr Club, your Junior should be in fine shape as he completed his annual check-up back in April at the "Spring Cleaning." But, just as some folks don't prepare their lawn mowers for winter, some didn't take the necessary steps to keep Junior alive and healthy for another year.

If your Junior sounds somewhat noisy when you boot, maybe it's time to clean it and give it a good check-up. You can refer to Chapter 6 in the Guide to Operations that came with Junior. This self-test goes far in showing you how your Junior is doing. If you need or wish to go a little farther than just a physical, use the instructions found in the IBM Hardware Maintenance and Service Manual several of our members have.

There is much you can do as a user to keep Junior healthy and happy. Cleaning will help prolong the life of your disk drive or drives, and if you look around the little blower fan attached to the back of the disk drive you will see how Junior's environment is interacting with it's components. If someone has been smoking while computing, you will see the brown nicotine stains on the fan, disk drive, and portions of Junior's motherboard and disk drive controller card. Other substances are sucked into Junior by this fan as it tries to keep Junior cool: lint, dust, pet hair, etc. These stains and the associated dust and dirt that all homes have help lock in heat, causing Junior to fail sooner than he should.

If you have had to purchase a component locally for your Junior, you already know that very few computer repair shops have anything associated with Junior in stock. While IBM still supports (through February, 1994) our munchkin with parts *[at the original inflated IBM prices - Ed.]* many shops have moved on to more profitable machines...read, ones that break more often than Junior does. This leads us to the meat of this article: consider buying a spare Junior CPU. I know this sounds ridiculous to many; you don't buy a spare car or TV to keep around in case the one you use every day should break, but it may be very profitable for you to do this just for Junior.

Consider the following: you bend or break a pin on the rear of the CPU when a family member moves Junior to another room. Cost of repair, $50 to $100, depending on whether you remove your motherboard or the repair shop dies it for you. Or your power supply gets zapped during a thunderstorm: $35 - $65 - if the repair shop can find another one to exchange, or if they can do circuit board troubleshooting. Due to low voltage

your transformer (brick) dies; where do you go in town to find another? Radio Shack? Think again. If the mother of all boards needs replacing in your Junior, look at the prices from suppliers who advertise in the magazines and newsletters. You have to exchange your old board in some cases, but in all cases you must do without Junior's familiar hum while you wait for the new or repaired board to arrive in the mail. And take a look at the cost! If you use Thin-Font or a V-20 chip, just pray that the new board doesn't have soldered-in chips.

Juniors have never been cheaper. It is a good time to consider that second machine for many more reasons than just to "part out." When that neighbor kid comes over, or the grandkids, let them play with the spare so none of your favorite games get zonked with sticky fingers or spilled pop. Let them bang on the old chiclet keyboard all they want; they won't hurt the one you use for word processing and they won't spill popcorn on it.

So, here are some guidelines to use when buying a used Junior. Of course, price is important. *[Ed. Note - these prices are from the Eugene area, and may vary somewhat ascross the country.]* The CPU and brick can be had at garage sales and through word of mouth advertising for around $75 - $100 if they are working. While at this price they may not be in topnotch shape, you should make sure they are at least in working order. Boot up and if you get the logo and then "Disk Boot Failure" on the screen, it may be caused by only a faulty disk in the drive, dirt, or even a bad or dirty disk drive. Your club will have someone who will help you determine the problem and advise you on how to proceed. Just remember that a nonworking Junior holds about as much value to someone as one bookend. Still, even a "dead" Junior has some good working parts and has value to someone with a working Junior. Read on.

A nonworking Junior can be very valuable if you "part it out." Seldom will everything on a Junior break all at once. You may only have to insert a good copy of DOS (one without peanut butter on it), or replace the fuse in the "brick" or the power supply card to have a good spare CPU. Be sure to look at the connectors on the back of the Junior. If the pins are broken in the K(eyboard) connector socket, consider using the Synectics internal keyboard adaptor...or just put batteries in the PCjr keyboard and sell the keyboard connector cable at the next Swap Meet. If the pins on the display connector are broken, you can use a monitor that plugs into the S(erial) port or one that utilizes the V terminal on the Junior.

The IBM PCjr Color Display is a hot item. They can be purchased for anywhere from $75 to $125 in good working order. Most any TV repair technician can refocus them and

(Continues on next page)

adjust the horizontal and vertical controls for you if you can't find someone in your club to do it for you. DO NOT open your monitor and go probing inside. There are megavolts in there, even though the monitor may be disconnected, just waiting to make Junior a two-time Orphan. STAY OUT of your monitor unless you are a qualified repair technician.

All of this is a good reason to become a member of a computer club. In nearly every one of them, there is someone who actually enjoys making dying Juniors well or giving CPR to dead CPUs.

If you can find a used CPU that works, you will have a spare power supply card ($50 - $75), 64K card ($50), disk drive Controller Card ($50) disk drive ($60), diskette drive fan ($10), external power supply or "brick" ($45), infrared keyboard receiver ($40), a second keyboard ($25), the CPU case ($30), and a motherboard ($98). (Prices taken from the recent catalog of a well-known PCjr supplier.) You may also get a spare parallel printer attachment ($90) or BASIC cartridge ($20 - $25), and even another copy of DOS. There's often a lot of software with a used Junior.

So read the ads in the newspaper and stop at garage sales; there are many Juniors out there and there is much life left in the old "orphan."

(This article was originally published in the Atlanta PCjr Users Group newsletter.)

Software Helps You Use DOS Commands

PC-DOS Help, Disk #24 in the Software Store, offers on-screen help for 43 DOS commands. The disk also contains a batch file that will customize the help files for the jr keyboard. It can be used as a stand-alone disk for reference when you want to use a DOS command you aren't thoroughly familiar with. Or it can be installed as a resident DOS reminder, taking up about 16K of memory. Designed by Chris Bailey, the user-supported program provides two levels of help for each of 43 DOS commands. The first level consists of a summary of the function and how to use it. This level serves as a handy reminder to be accessed just before using the command. The second level of help provides more detail about the DOS command and often helpful references to other commands used in conjunction with the command being discussed. The author also includes handy notes on how to use the command and specific examples of what each command might be used to accomplish. The disk in the jr Newsletter Software Store is specifically for DOS 2.0 or 2.1 and can be configured for either, when it is being installed.

Software
(Order form on page 23)

GOLF/SAILING. Two great games! 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)

MEAN 18 GOLF COURSES. Three excellently designed courses for those who play "Mean 18," the commercial golf game. Disk #79 has Boca Woods North, Boca Woods South, both with especially challenging water holes, and Kearsage Valley, with fall foliage in full color. Disk #80 has TPC of Avenel, TPC of Sawgrass, with massive sand traps and a tough 17th green on an island, and TPC of Woodlands, which may be the most challenging of all. (Disk #79 and #80)

PC-CHESS. Two great chess games on one disk! A full-color, many featured chess program with four levels of play, allows such things as switching sides, setting up the board yourself, validity checking, en passant, etc. The other works on color or monochrome, has window showing options it considers before moving, adjustable difficulty level -- but a powerful opponent at any level. 128K ok for one, 256K for other. (Disk #44)

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)

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, the hardest one of all. Runs on 128K. (Disk #10)

PLAYER'S CHOICE. Six different card games, some easy, some hard, but all excellent. Youngsters can have fun playing Memory or Even-Out, which are quite easy to master. Blackjack is hard to beat, and Poker, which has the ability to modify its play in response to your methods, is a real challenge. Also two fine versions of Solitaire, one with great graphics. Some need 256K. (Disk #78)

BRIDGE PLUS. Play Contract Bridge Or Mahjong. Realistic bridge practice in bidding and playing against the computer. Good way to practice the game, but need some knowledge of the game or a rule book. Mahjong rules are included on the disk. Requires 256K Reviewed 9/91 (Disk #131)

REFLEX POINT. Patterned on the TV show Robotech, this game follows the show's storyline, with the Freedom Fighters trying to reach the Reflex Point and destroy the evil Invid Prince. 128K ok. (Disk #12)

SCRABBLE. At last, an excellent Scrabble game that runs in 16 colors on PCjrs! Plays just like the board game. Expandable dictionary checks words. Keeps track of all premium score squares and scores for up to four players. Also contains WORDWHIZ, a nice vocabulary building game. 256K (Reviewed 5/90) (Disk #113)

STAY ALIVE !!! Three games that require all your wits to stay alive. Can you avoid the terrible nightmares and reach the highest level in Dr. Sleep? Or fight off the alien hordes on the Planet Iskib? Bet you can't shoot down the clever enemy pilots in Sopwith. If you can, you deserve a medal! 256K (Disk #89)

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. Need Cartridge BASIC (Disk #55)

TOMMY'S TRIVIA. Excellent trivia game with 3 ways to play against computer, 2 against human opponent. 2,500 questions in many categories, from entertainment to history. More Q's available. 16 colors on PCjr. Need 256K. (Disk #98)

WAR ON THE SEA. Based on World War II naval battles, this game allows you to command a fleet in seven different campaigns in the Atlantic and Pacific. Not a joystick game, this one will allow you to see whether you have the strategic skills to be an Admiral. 256K (Disk #100)

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)

Print Utilities

IMAGEPRINT V3.33. Produces near letter quality print on dot matrix printers. IBM Graphics Printers, Proprinters, Epsons and compatibles. Contains many format features, three quality levels, interfaces with word processors. 256K ok. (Disk #50)

PRINT HANDLER. Excellent printer setting utility allows you to set features from a menu. Other software on disk for banners, sideways printing, custom font generator (Epson), print spooler, count pages before printing and more! Will work with most dot matrix printers. (Disk #51)

PRINT IT! Selection of programs allows you to print large banners as well as tiny (but quite readable) documents on most dot matrix printers. Compress four pages on one sheet with Docsmash, print on both sides of computer paper with Both, reformat into tiny columns with Microtext (many other options), make wall-length banners with Bannerific! 256K (Disk #111)

SIDE WRITER. Prints text files and spreadsheets sideways on dot matrix printers. Has Menu System for configuration. Works with IBM and Epson compatible printers. Requires 128K Reviewed 9/91 (Disk #132)

Spreadsheets

AS EASY AS. Excellent, easy to use, spreadsheet program. Works like Lotus 1-2-3, with all spreadsheet functions. Can load and operate 1-2-3 files. 256K ok (Disk #67)

A Brief PCjr History
(from the July 1985 edition of PCjr World Magazine)

November 1983:
IBM introduces the Jr, code-named the Peanut during development. The Jr comes in two versions: a 64K entry-level model, at $699, that runs only ROM cartridge programs; and a $1,295 enhanced model with 128K and one disk drive. Reviewers criticize Jr's Chiclet-style keyboard, limited memory, and weak power supply, which makes expansion difficult.

January 1984:
After an unexplained production delay that causes Jr to miss the crucial Christmas selling season, IBM begins shipping the machine to dealers.

April, 1984:
IBM unveils a color monitor for Jr and launches a $40 million advertising campaign but quickly reduces ad expenditures when Jr sales remain sluggish.

June 1984:
To stimulate sales, IBM drops the price of the entry model to $599 and reduces the enhanced model to $999.

July 1984:
IBM announces several improvements for Jr, including a more traditional keyboard, a speech synthesizer attachment, a power supply unit, and 128K Memory Expansion Attachments, which boost RAM to 512K. Reviews are generally favorable.

August 1984:
IBM inaugurates a massive pre-Christmas promotional campaign, estimated by one analyst at $120 million. The campaign includes an advertising program, several direct-mail promotions, special rebates for dealers, and a year warranty.

October 1984:
During the final quarter, authorized dealers drop prices to about $800 for a 128K Jr with a color monitor, and sales soar. Dataquest estimates quarterly sales of 200,000--80 percent of the year's total. Dataquest also estimates per unit production and marketing costs at $887.

January 31, 1985:
Promotions end, and the price of a 128K Jr with a color monitor floats back up the $1,400 range. Sales slump accordingly.

March 19, 1985:
IBM announces production of Jr will cease in April.

Questions and Answers

de-bugged. If a minor change is implemented for, say, a slight speed enhancement or a rare bug, there may not be a version number change so the consumer has no way of knowing that the program actually is different from earlier issues.

If, for example, a program is changed by the addition of instructions before the addresses of the patch it is obvious that all the instructions following that addition will be "pushed" ahead by some amount and the patch will be applied to the wrong place. Is that what we have here? Probably. Prodigy has changed the software a number of times in the past and may continue to do so.

Q. I have a Koala Pad made for the jr. It works great with the supplied software. I would like to use it with the software called Speed Key, which is software written for the standard PC. It initializes with only up - down movement and stays in the lower left corner. The calibration part crashes. The jr's internal joystick (Ctrl-Alt-Ins) diagnostics indicate the joystick (Koala Pad) needs repair. Can anything be done?

P. Wiest, Seattle, WA

A. Our jr diagnostics with our jr Koala Pad in either joystick receptacle will only allow movement across the top edge, or only a third of the way across if the stylus is not against the top. It will also jump straight to the lower right corner if the stylus is pressed there. The diagnostics do not indicate a repair is in order.

Now, the resistance of the official IBM joysticks is 0 - 100 k Ohms, according to all the IBM Tech. Ref. Manuals. The Koala pad resistance seems to be about half that when its two surfaces are clean. You can check this out by putting a joystick in and running the jr Koala pad software. You can't cover the whole screen. One other difference is that the joystick always has some value of resistance which the timing circuits are monitoring, whereas the Koala Pad "opens" right up without stylus pressure. That may be why the software tells you to hold down the stylus even when you only want to press a button.

We are not familiar with the Koala Pad PC software and can't comment further, but here's the pin-out of the Joystick plug(s) for your own information: (Remember A is across the top, B across the bottom, and they are labelled.)

```
A01 >----> Key (plug)
A02 >----> Logic Gnd
A03 >----> Y axis Resistance
A04 >----> +5 v. fed from jr
B01 >----> Shield Gnd
B02 >----> X axis Resistance
B03 >----> switch (button)
B04 >----> switch (button)
```

Q. Having trouble running Word v. 4.0. Even borrowed a copy of Word v. 3.0 to see if only the alter version is the problem. Same thing and Microsoft just isn't interested in helping me oût. a $200.00 + program and they have no support for a whole class of customers! Here's a bunch of CONFIG.SYS and AUTOEXEC.BAT combinations I've tried. Still it won't fly. •

D. Marshall, Idaho Falls, ID

A. Your letter has obviously been cropped, but we thank you for its creativity and the loads of information you included! Whew, you've really gone the route. The only thing we find not in the config.sys examples is something like FILES=30 and BUFFERS=10. Are we missing something or do we assume you have these? You have plenty of memory, a couple of drives etc. so there's no reason Word should give you any problem. By the way we recently ran into some software which requires files=31. 31! are they kidding? Nope, there it was in the documentation and it really needed it set at 31! Nothing else would work...

I'd like to take this opportunity to ask those of you running Word, or any other troublesome software, to send in your vital statistics (RAM, drives, boot configuration, etc.) and we'll publish 'em.

Telecommunications on Jr

standing only signals that are a series of off-and-on pulses. The modem's task is to make the analog telephone signals compatible with the digital computer signals. In transmitting data, the sending computer uses a modem to change the computer's digital signals to analog (a process called modulation) and send them out on the telephone line. Then the receiving computer uses a modem to reconvert the analog signal to digital (a process known as demodulation). These terms, MOdulation and DEModulation give the modem its name.

As is the case for almost all computer peripherals, there must be many signals and commands between the computer and the modem. The most often used set of commands was developed by Hayes Microcomputer Products, Inc., for their Smartmodem line of modems. This set of commands is not especially better than any other set of commands but almost all communication software use the Hayes command set, so it is important for a modem to be "Hayes compatible". Occasionally, the Hayes command set is called the AT command set because most of the commands begin with a capital AT (for Attention).

MODEM TYPES

Physically, modems are a collection of electronic components and chips with some means to be connected to a computer, and a telephone plug to connect with a standard telephone rj-11 jack. Modems can be just an electronic board that is installed inside the computer. IBM sold an internal PCjr 300 bps modem that was to be installed on Junior's system board. The phone connection was made through the little, rectangular hole in the back of Junior that is labeled "M". The original cost was about $200, and you may still be able to buy one at a very low price. However, the IBM internal PCjr modem is a very slow modem by today's standards.

External modems are basically the same as internal modems, but they are in their own cases and have their own power supplies. They hook into the computer by way of the computer's serial port (sometimes called the RS232 interface), and they can be transferred from one computer to another very easily. Although they cost slightly more than internal modems (due to the modem's case and power supply), they are very popular because of their transferability. External modems usually have a row of indicator lights to show the modem's current operating speed and status. Internal modems do not have these indicator lights.

To be complete, we need to mention null modems. A null modem is just a cable that connects the serial ports of two computers. Most telecommunication software support null modems and this is one way to transfer data between two more-or-less incompatible computers.

MODEM SPEED

Modems are usually classified by the fastest speed at which they are able to transmit data. Sometimes modem speed is given by baud rate and at other times it is given by bits-per-second (bps). These two terms, baud and bits-per-second, are not exactly synonymous but they are used interchangeably even by companies that make modems, so for all practical purposes the two words are the same. To be precise, baud refers to the number of changes that the analog signal makes per second and bps is the number of binary computer digits (bits) that the modem transmits per second. Bps is the preferred term. The number of characters, or bytes, per second that are transmitted is roughly one-tenth the bps rate.

Modems come in three popular basic speeds: 300, 1200 and 2400 bps. Extremely fast modems, 4800 to 9600 bps, are beginning to be a little more common, but they are still very expensive and restricted in use. When the IBM PCjr was introduced to the world, 300 bps modems were popular, and some modems that operated at 110 bps still around. Now, 300 bps is considered to be a very slow rate, and I doubt if anyone currently manufactures a 300 bps modem. Modems will almost always operate at the slower rates. Thus, a 2400 bps modem can be expected to also operate at 300 and 1200 bps.

ERROR CHECKING

Telephone lines often have static and other noise, and this means a considerable amount of error checking and correction must be performed on the transmitted signals. Quite often this error checking is done by software through what are called protocols. A large number of different protocols have been developed through the years with XMODEM, YMODEM, ZMODEM and KERMIT being some of the most popular. The data communications program that you use will undoubtedly support several different protocols, and usually you just pick out one that is supported by the sending computer system. As is true with most things involving computers, some people have strong opinions on protocols. All of them work very well though, and most likely you won't be able to see much difference between them.

For character based data (ASCII text) each character can be checked for errors. This is done with an additional parity bit following the character bits.

Some newer modems have built-in, hardware based, error checking protocols. One of the more popular of these hardware protocols is known as MNP 5. MNP stands for Microcom Networking Protocol, and the 5 is an error detection level. In addition to error checking, MNP 5 adds data compression so that the data transmission rate is speeded up also. Some modem manufacturers claim that their effective rate of data transmission is twice the rated bps speed of the modem. This hardware based error

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detection and data compression works only if both modems have MNP 5.

SERIAL DATA TRANSMISSION

Computer data is normally consolidated into groups of eight bits, which consist of just 0's and 1's. Each group of eight bits is called byte. In parallel data transmission, used internally by the computer and often by printers, there is a wire for each bit so that all eight bits are sent out at the same time. On the other hand, because telephone lines work in a serial fashion, modems transmit data serially. Each bit in the byte is sent one at a time, just as if they were on a conveyor belt.

It is easy to see several disadvantages with serial data transmission. It would be nice if the telephone system used parallel signal paths, but it doesn't, so modems are stuck with serial transmission. Obviously, serial data transmission is slower than parallel data transmission, but an even greater disadvantage is the need to re-assemble each byte after it is received. The device that is receiving the string of bits has to know where one byte ends and the next byte begins. There can be no mistakes in this. Without proper identification of where one byte ends and another begins, the data transmission becomes a meaningless stream of 0's and 1's.

Mainframe computers often use a precise, shared synchronized time base for serial data transmissions. This synchronous data transmission is effective and fast. It is also complicated and expensive, so personal computers use what is called asynchronous data transmission. Data is not part of a continuous synchronized data stream and can began to be transmitted at any time. Of course there have to be signals to indicate where a byte starts and where it ends. These are the start and stop bits. For example, the sender could start with a stream of bits set to 1 - this is called the marking state. Then a single bit set to 0 (the start bit) would signal that bits representing a byte (the data bits) immediately follow. After eight bits a stop bit, set to 1, would indicate the end of the byte. If the next byte were delayed, a string of 1's would indicate that no data is being transmitted, and the receiver waits for the next start bit. As you can see, the process allows resynchronization as each byte is transmitted and it allows for some timing differences between the sender and the receiver.

The sender and the receiver must agree beforehand on what the signals are to be. There is always just one start bit, but sometimes two stop bits are used, and as we have mentioned, sometimes a bit for parity checking is also used. The start and stop bits are always set to 1, while the parity bit is either a 1 or a 0 depending upon whether an even or odd parity check is used. The number of data bits

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Software
(Order form on page 23)

AS-EASY-AS V.4.00 This is a MAJOR upgrade of the popular, powerful Lotus 1-2-3 look-alike spreadsheet software. Many useful features have been added to an already full-featured program. Earlier 256K version (2.05) is Disk #67. This upgrade requires 384K. Reviewed 2/90 (Disk #107)

MINICALC. A small, easy to use, spreadsheet program. 11 columns by 22 rows. On-line help function and manual on disk. In addition to performing calculations, will generate bar graphs. (Disk #27)

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)

PC CALC PLUS. V2.0 More advanced than PC Calc (Disks 5 and 6), this is a very powerful spreadsheet program which includes graphing features. Excellent. 512K (Disk Set #2 (2 disks) $10.)

Utilities

DISKCAT. Creates a catalogue of all files on all your disks, so you don't have to push disk after disk in your drive looking for that 1987 letter to the IRS. Makes table of contents for each disk, too. 128K ok Reviewed 10/91 (Disk #133)

4DOS V2.21. This is the "ultimate utility" since it replaces almost all DOS commands with new, improved versions. And it adds 35 more useful commands of its own! It will replace many of your favorite enhancement utilities. For example, 4DOS allows 40 character file descriptions, more flexible wildcards, multiple commands per line, handy conditional commands, command stacking, alias commands, faster batch processing -- and MUCH more! A must for all serious computerists. Reviewed 1/90 (Disk #102)

LHA V.2.11 Powerful archive software will compress even more than PKZip, (though not as fast). Many extra features to update, delete, list files in arcxhive, even extract and run. 256K (Disk #128)

POWERBATCH. Compiles batch files into .EXE files, which run as much as three times faster. Additional commands add power, control, & flexibility. Requiires DOS 3.0 or above. (Disk #127)

BAKER'S DOZEN. 13 powerful utilities by shareware star Jim Button. Recover zapped files, save screen to files, print sideways, sort files, file management, locate text, pop-up calendar, powerful one screen spreadsheet, set screen colors, and more. (Disk #73)

BATCH FILE UTILITIES. A tutorial on how to create batch files and six utilities to use. 128K (Disk #26)

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)

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can either be 7 or 8. If binary or executable files (those with .EXE or .COM filename extensions) are being sent then 8 bits are required. If just standard ASCII characters are being sent though, 7 bits are enough to identify the character.

This probably sounds hopelessly confusing, but as it turns out there are not too many variations. Only extremely slow systems, 110 bps, use two stop bits. You will probably never encounter a 110 bps on-line system so you safely always use just one stop bit. The IBM PCjr and other PCs almost always use 8 data bits, and with 8 data bits a parity check bit is rarely used. Therefore, if you intend to connect to a local PC bulletin board you can safely set your modem to:

    8 data bits
    No Parity
    1 stop bit

Other computers, such as Commodore often use 7 data bits and a parity bit, and if you use a serial printer or plotter on your Junior you may encounter other settings. However, the settings will be listed, and now you know what the terms mean.

DUPLEX MODES

Serial data from on-line systems can flow in any of three modes:
* Simplex - data flows in only one direction.
* Half-duplex - data flows in either direction, but in only one direction at a time.
* Full-duplex - allows data to flow in either direction at the same time.

These modes are set on your modem by your communication software, and you will need to set your modem in the same mode as the sending station. The duplex settings affect way the characters you type in are displayed on your computer's screen. Simplex data flow is almost never used so you can ignore that mode. If none of the characters you type are displayed as you type them in (there is no echo), then you are probably running Full-duplex on a Half-duplex system. Conversely, if you are getting two characters for every character you type, you are probably running Half-duplex on a Full-duplex system. Most on-line systems use Full-duplex, so you should normally set your modem to that mode to begin with.

WHICH MODEM FOR JUNIOR?

There are just a few things to consider when you look for a suitable modem for your PCjr. Of course, you want a Hayes compatible modem, but nowadays virtually all modems are Hayes compatible. First, you need to decide how fast the modem should be, and you should first consider 2400 bps modems. They do not cost much more than 1200 bps modems but they transfer files twice as fast. Faster modems, 4600 bps and faster, are considerably more expensive, and very few on-line services support modems beyond 1200 bps. 300 bps modems are obsolete, and should be avoided unless you can get one at practically no cost and do not intend to use services that have a per-hour charge.

Next you need to decide whether to buy an internal or external modem. Since no one currently makes an internal modem for Junior, this is an easy decision; opt for an external modem. An external modem can also be used with another computer if you should ever buy one to supplement your PCjr.

Probably any external modem will work with Junior, but it would be prudent to test it with a PCjr before you buy it, or else buy one from a firm that specializes in PCjr products. You will find that PCjr vendor's modem prices are very competitive with other sources. Since Junior's serial port has a different type of connector than other PC serial ports, you will need to use a cable that converts the PCjr serial port to a standard 25 pin serial connector plug. These conversion cables are available for less than $20 from firms that specialize in PCjr products.

How To Disable DMA On Racore Units

PCjr users who have Racore expansion units with DMA may want to disable the DMA feature in order to make your unit compatible with a new hard drive (some are not compatible with Racord's DMA) or for some other reason.

Disabling DMA in Racore units is not difficult and it is can be reinstalled later if you want it back. It just takes a little care, particularly when it comes to removing the DMA chip.

According to the Racore Service Department, here are the steps to follow:

1. Carefully remove the U-19 chip (a large 40 pin chip), using a chip puller, if available. (These chips cost about $25 to replace.)

2. Move the jumpers on J-10 and J-13 over one pin to the left. They are currently on the right two pins and should be moved to the left two pins.

3. Install a 150 ohm terminator in the H1 socket near the top of the board. These terminators are available in most electronic supply stores. Beckman part #899-3-R150 or Epitek part #EM 1407-151G are two types of terminators that will do the job, but there are many others that will also work.

4. Remove the floppy disk drive controller card and cable. Now you will need a $10 Racore cable, Part #5500-1013 to connect your second floppy drive. Or, you can replace the original IBM card and cable that came with your PCjr if you are going to operate with one floppy.

That's all there is to it.

*** PCjr CLASSIFIEDS ***

IBM PCjr - 640K, Racore Drive II Plus with DMA, Magnavox RGB Color Monitor, PCjr keyboard, DOS 2.1, Cartridge Basic and Lotus 123 (version 1A), 3 joysticks, complete set of original manuals. Asking $600 + shipping. Call Jeff at (612) 469-4703.

PCjr - 640K, Racore Drive II, jr color monitor, Basic cartridge, 2-360K 5 1/4" FDD's, IBM joystick, jr enhanced keyboard, parallel printer port, clock/calendar. DOS 2.1, IBM Writing Assistant, games, manuals. Excel. cond. $550 + Shipping. Bob Schadewald, New Egypt, NJ (609) 758-7517.

IBM PCjr 640K, PCjr color monitor, Tecmar memory with parallel port, new IBM disk drive, internal modem, all cables and manuals plus software. One IBM Joystick, Basic cartridge, excellent running condition. $390 + shipping. (516) 968-5474.

PCjr 640K - Racore drive 2 with DMA, clock-calendar, RGB color monitor, cartridge Basic, DOS 2.1, two keyboards, much software, all jr Newsletters. $499 + shipping. Call Keith (717) 523-1417.

For Sale: Jr Hotshot Internal Upgrade card with 512K and controller for 2nd drive - only $125, with Sony external 3 1/2" drive, case and power supply $200 total. Lotus 123 release 1A for jr, only $90. Parallel printer port $25. 300 baud internal modem $25. PCjr color monitor $50. Jr keyboard and numeric keypad $25. Bernard (904) 428-9864 or (904) 788-3060 (eves).

For Sale: PCjr with color monitor, 760K RAM, 3 internal disk drives, two (3 1/2" 720K) & one (5 1/4" 360K), 130 watts internal power supply, PC Enterprise speedboard, new motherboard, 30MB hard drive, 4 cartridges (configuration PLUS/COMBO/SPEED/IBM BASIC). $650. Call Chris Reeberg (718) 529-1528 after 7pm eastern time.

PCjr-640K, two IBM 128 sidecars; one sidecar powerpack; two 360K floppies; V-20 chip; cartridge Basic and color paint;

DOS 2.1; speed-up cartridge; two joysticks; PCjr printer; internal modem; PC Enterprises modem control card; all manuals; PC Enterprises motherboard with all modifications. Will ship and pack FREE; $500. Richard (813) 653-1101 or (813) 220-2172 (during business hours).

PCjr - 640K, Hotshot Memory (clock, calendar), PC Enterprises Combo Cartridge (Quicksilver, DMA), Sidecar parallel printer port w/cable. Cartridge Basic, DOS 2.1. 1200 Baud external modem w/cable. All manuals. $550 + ship or Best Offer. Howard (415) 572-8160.

IBM PCjr - 640K, Racore expansion unit, two floppy drives, new system board, color display, Data-Desk keyboard and cable, V-20 chip, complete documentation, DOS 2.1, Basic cartridge, floppy disk, games and some programs. $425. M.E. Dollar (310) 430-1569.

PCE Updating JRCONFIG

PC Enterprises reports that it will be releasing a new and improved version of Larry Newcomb's JRCONFIG, the shareware memory management software for PCjrs.

Pat Calabria of PCE says Larry has provided the source code for JRCONFIG to PCE. Version 3.0 will be released soon. It will include support for DOS 5.0 and other changes. It will continue to be provided as shareware and jr Newsletter will make it available as soon as it is ready.

PKZIP Help

pkzip or pkunzip you can get a help screen just by typing either name without any switches or options.

The biggest problem comes when the archive program and the unpacker are stored on the same disk that you try to unpack the file to. Remember to unpack to a blank formatted disk even if you only have one disk drive, ie;

pkunzip -x zipfile b:

This will extract the zipfile to drive b. If you only have one disk drive you will be prompted to change disks. It is important not to copy over any files on the SOURCE disk (the disk containing the zipfile and unpacker).

This is just an overview of the PKWare programs and there are many more commands and switches associated with the programs which make them very useful.

Need Help?

The following disks from the jr Newsletter Software Store can help you to get the most out of your junior. To order, see the coupon on page 23.

PCJR AUTOSETUP. A beginner's dream: Just select from a menu to make separate boot disks especially for each type of software you use. Automatically creates the right config.sys and autoexec.bat files for RAM disks, games, word processing, telecommunications and other software to run at maximum power and efficiency on your PCjr. Designed especially those who haven't mastered the art of customizing their computers. This one does it for you! 256K (Disk #99)

JR TOOLKIT V2.0. A collection of 30 upgrades, modifications and repairs. Some easy, some require experience. Includes adding second 5.25" drive (easy) or 3.5" drive (easy), PCjr to Tandy 1000 Mod (harder), power supply upgrade (harder), reset button (harder), V20 speedup chip (easy), how to quiet drives (easy), adjust monitors (easy), plus many others. (Reviewed 3/90 & 6/90) (Disk #110)

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)

JR POWER PACK II. Disk full of programs to make your PCjr more useful and powerful. Fix compatibility problems, set up ram disks, tiny word processor, set up 3.5" drives, use DOS easily, and more. Need 256K for some, 128K ok for most. (Disk #65)

PCJR COMPATIBILITY DISK V3.5. Lists hundreds of software titles, along with info on how they run (or don't run) on PCjrs. Includes many tips on how to make software PCjr compatible. Powerful search feature finds titles quickly and easily. 128k ok. Updated April, 1990. (Disk #60)

PCJR PATCHES V6.0 Patches to fix software to run on PCjrs. Most enable 16 colors. V6.0 adds patches for 1 on 1, 688 Attack Sub, Battle Chess, Battle Tech, Boxing II, Genius Mouse, Grand Prix, Indiana Jones, Jack Nicklaus, Knight Games, Paperboy, Prodigy (thru V3.1),Shanghai, Silpheed, Sim City, Space Rogue, Steel Thunder, Strip Poker II, Test Drive II, Tetris, The Games (Summer), Ultima IV, plus new patch to stop disk drive spin. Dozens of older patches, too. (Reviewed 2/91) (Disk #56)

jr Newsletter Software Store

The software in the jrNewsletter Software Store is the best public domain and user-supported software for the PCjr we've been able to find. All software has been tested on our PCjrs and is highly recommended. Some of the programs are equal to or better than commercial programs costing hundred of dollars. These are offered for you to try at $5.95 per disk. Some shareware requires additional payment if you continue to use it.

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Newest Releases

• **NEW** * **MEMSIM.** Simulates Expanded Memory on the Jr's hard disk (or floppy) through the use of a swap file, enabling you to run programs which require more than 640K. 384K recommended. Reviewed 12/91. (Disk #135).

* **NEW** * **BITE BY BYTE.** Let your PCjr design a sensible diet especially for you, and help you plan meals so you can lose weight without too much deprivation. It's fun to do--and it really works! 256K Reviewed 10/91 (Disk #134)

* **NEW** * **DISKCAT.** Creates a catalogue of all files on all your disks, so you don't have to push disk after disk in your drive looking for that 1987 letter to the IRS. Makes table of contents for each disk, too. 128K ok Reviewed 10/91 (Disk #133)

* **NEW** * **SIDE WRITER** Prints text files and spreadsheets sideways on dot matrix printers. Has Menu System for configuration. Works with IBM and Epson compatible printers. Requires 128K Reviewed 9/91 (Disk #132)

* **NEW** * **BRIDGE PLUS.** Play Contract Bridge Or Mahjong. Realistic bridge practice in bidding and playing against the computer. Good way to practice the game, but need some knowledge of the game or a rule book. Mahjong rules are included on the disk..Requires 256K Reviewed 9/91 (Disk #131)

jr Newsletter Software Store

Please circle the diskette #'s of your choice

SET DISK SETS
1 PC WRITE V3.02 (3 disks-$12)
2 PC CALC PLUS. 512K (2 disks-$10)
3 PRINTMASTER LIBRARY. (2 disks-$10)
4 TELIX V3.12 (3 disks-$12)
5 PC-WRITE LITE (2 disks-$10)

 # TITLE
1 PC-WRITE V2.5 (128K)
2a PC-WRITE V2.7 (256K), Disk 1
2b PC-WRITE V2.7 (256K), Disk 2
3 PC-FILE III. 128K
4 PC-FILE III. 256K
5 PC-CALC. 128K
6 PC-CALC. 320K
8 GAMES I
9 DUNGEONS & WARS
10 PINBALL RALLY
12 REFLEX POINT
14 ADVENTUREWARE
15 PROCOMM
16 BUSHIDO
17 PC-OUTLINE
18 TYPING INSTRUCTOR
19 3 X 5
20 EQUATOR
21 TIME TRAVEL IN HISTORY
22 PC-DESKTEAM
23 PC-PROMPT
24 PC DOS HELP
25 PC-CHECK MANAGER
26 BATCH FILE UTILITIES
27 MINICALC
28 SUPER UTILITIES
29 MORE SUPER UTILITIES
30 ARCADE GAMES
31 BOARD GAMES
32 PLAY AND LEARN
33 FAMILY HISTORY (128K), single

33A FAMILY HISTORY (256K), need both
34 GAMES II
35 NEW KEY
36 PIANOMAN
37 PC-KEY DRAW
38 PC-KEY DRAW DEMO
39 ORIGAMI
40 DOS 2.1 FIX
41 WORD PROCESSING FOR KIDS
42 MATH FUN!
43 BRAIN BOOSTER
44 PC-CHESS
45 ZAXXON/GALAXY TREK
46 PHRASE CRAZE
47 GOLF/SAILING
48 EARLY LEARNING
49 DOSAMATIC
50 IMAGEPRINT V3
51 PRINT HANDLER
52 JR POWER PACK
53 CASTAWAY/S. AMERICA TREK
54 THE BEST OF JR NEWSLETTER I
55 SUPER BOARD GAMES
56 PCjr PATCHES V.6.0
57 HOME BUDGET MANAGEMENT, 128K
57A HOME BUDGET MANAGEMENT, 256K
58 HOME INVENTORY
59 CHECK PROCESSOR
60 PC-JR COMPATIBILITY DISK, V4.0
61 BOYAN
62 JR MUSIC MACHINE
63 GAMES FOR EARLY LEARNERS
64 COMPUTER JOKER
65 JR POWER PACK II
66 THE BEST OF JR NEWSLETTER II
67 AS-EASY-AS, V.2.05 (256K)
68 DOUBLE TROUBLE
69 GALAXY
70 NAMEPAL
71 CROSSWORD CREATOR V3.30
72 LANGUAGE TEACHER

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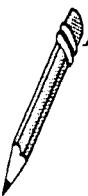
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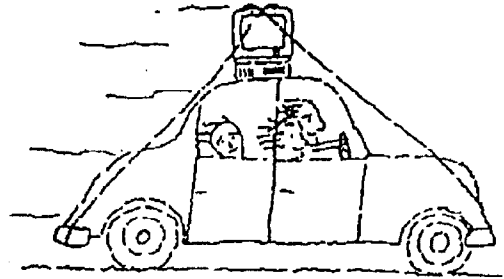Address _____

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