New PC Enterprises Products Improve PCjr Compatibility

Two new products for the PCjr, to be marketed by PC Enterprises of Belmar, New Jersey, are designed to improve PCjr compatibility by providing a compatible BIOS and by enhancing the video system.

P. Joseph Calabria, owner of PC Enterprises, says most of their customers use the PCjr for word processing or other applications that do not require great speed in a computer. "For most home applications-- with the exception of games-- people can use the PCjr. As long as

Progress Without Change

Most people are in favor of progress; It's change they can't stand.

they have a hard drive and the memory, they will be real happy with the junior."

He says the primary focus in their new product line is compatibility, which he believes is the Number 1 Issue affecting the usefulness of the PCjr.

In This Issue:

PCjr Lives!

Jr Newsletter has a "New Look"

Regular readers will notice (and, we hope, appreciate) our new look. The magazine format has been changed to include more pages in a smaller format. It should be easier to read and save. The change also lets us mail at a lower cost than the old format. It is one more way we are trying to hold down costs to you, our loyal subscribers.

If you started out using a floppy-based computer, or just recently got a hard disk, you might need some help getting things organized. If you are thinking about getting a hard disk, we'll explain a little bit about them.

A hard disk contains several platters, rather like a stack of stiff floppies. Each platter is made from metal and covered with a magnetic coating. The platters are stacked one on top of the other, with a bit of space between for the disk heads. The disk heads are connected to mechanisms that move them across the surface of the platters, where they pick up the magnetic signals (data) that are stored on the platter.

You might have seen advertisements for hard disks that show their access time. This value is actu-ally the average track-to-track seek time, or the average amount of time that it takes the disk head to get from one track to the next. Access times of greater than 60msecs (thousandths of a second) are usually found in XT computers with under 40msecs in ATs and 386s. High-capacity hard disks (more than 80MB) may have an access time of 20-25msec, or even lower.

The access time is very important for the efficiency of a computer. If you have a fast computer, don't put a slow hard disk on it. Some computer dealers will advertise an AT or 386 system that has a XT class hard disk in order to keep the price low (I still see this), don't accept a system with this configuration. A more responsible dealer will match the drive speed with the computer. If you want a 386 computer, get a 386-class hard disk. It will cost more, but it's worth it.

The data transfer rate of a hard disk controller is also important. You want to have a controller that can process data as fast as possible. A controller with a slow transfer rate will cause the whole computer to act slower. What's the point of a fast processor if the computer will sit all day waiting for data?

Each hard disk platter is divided up into tracks, which are concentric rings of data. Each track is

❓ Questions & 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. I've got a jr. with plenty of bells and whistles and it runs great but -- one problem: speed. Is there anything out there to get me up to about 8 MHz? I sorely want to hang on to my jr. but some new programs and games are pretty slow and need the extra speed.

J. Skelley, Johnstown, PA

A. Some of the solutions are in hardware and others in software. A RAM disk comes to mind immediately. You mention enough RAM in your system to handle a fair sized RAM disk and NOTHING is as fast as a RAM disk. Just load the program and / or its overlays to the RAM disk and you'll be astounded at the speed change. Tip: you should never use a disk cache with a RAM disk.

Try speeding up your hard disk access with a disk cache or by using DOS 5.0 and the proper option for Smartdrive and Fastopen. You might want to try a commercial utility such as PC Kwik or a relative to do the same. Do not use two of these utilities together, they actually conflict with each other and slow down the read / writes!

You mention that even some word processing functions are slow.

Dump the program! Any text-based, DOS word processor which runs slowly on any machine is way out in left field. Recommended: PC Write, any recent version. (See jr Newsletter Software Store) Most operations are done within one or two screen refresh cycles.

Hardware is available to actually speed up the jr. if CPU cycle speed is really what you need. The 8088 speedup boards generally go to a touch above 7 MHz, though some go as high as 9.7 MHz, which is about double the jr's original speed. There are some situations where this speed cannot be accomplished because of the existing memory chip refresh rate in some jrs and / or memory expansion board types. You should contact our advertisers for various speedup boards according to whatever memory expansion system you have installed. They'll recommend the correct board for you, such as Nickel Express or Jr Excellerator.

If you want to go all the way to outer space you may be able to get a 12 MHz MESA '286 board from Ed Strauss, although we hear he's not making any more of them. This is

Questions & Answers

the most super upgrade yet for the jr. It will out-perform an AT! You can contact MESA at: ES Quality Products, 2065 Lakeshore Drive, Carson City, NV. 89704 tel (702)-786-4040.

Q. I have the book / disk combo "Learn BASIC Now" as recommended in the Jan. issue. Have not been able to get it up and running. Disk #2 appears, but I cannot choose with the cursor keys. Highlight goes only back and forth, to and from original place. I have 736k (sic) and a single floppy with RAM disk capability. Help!
 R. Smith, Whitinsville, MA
A. Sounds like the typical INT9 incompatibility. You MUST have one of the INT9 fixes to run ANY recent software from Microsoft and most others. What's happening is that the jr's keyboard input service is "doubling" the keypress action. That's why the highlight is moving too far; in this case back to "square one." Order disk #99 from the Software Store, "PCjr Autosetup" to get not only the right keyboard fix-up but the ability to choose many custom booting configurations as well. You have to have some version of the INT9 keyboard fix in your config.sys or autoexec.bat, no matter which DOS version you are running. You'll be amazed at how many other little glitches also disappear once the fix is in! That whole series of "Learn Xxxx Now" book /disk combination

is very well done. It seems to be popular with many other DOS compatible machine owners.

Q. Would the "black box" power supply for the sidecar at 75 VA work as a backup for the jr main power? The original main power supply "black box" is rated at 56 VA. T. Blake, Falls Church, VA
A. It would be ideal as it has a slightly higher rating than the "black box" which you have for your main unit. The rule of thumb is that the VOLTAGE OUTPUT from the supply TO the device MUST NOT BE APPRECIABLY HIGHER THAN THE ORIGINAL. (The 1 v. difference in this case is negligible, as the internal DC power board handles this easily.) This rule applies to ALL electrical and electronic equipment. If the Amp rating of any substitute power device is higher than the original, you have the nice perk of possible increased loading without heat or other problems.

Q. Volume labels? How is one added to a diskette which is already formatted and how is an old label changed?
 D. Aka, Kailua-Kona, HI
A. If you have a DOS version starting with 3.0 or later, the command "LABEL" (optionally including the drive letter) from the keyboard displays the current label on any disk or diskette and asks if you want to change it. Press Enter to leave it alone or type in the new label (eleven or fewer characters) and that's it.

Reader Feedback

File Express Version 5.01 Needs Hard Disk

I have been using, as a registered user, Version 4.01 of File Express. My configuration is essentially 640K RAM and two disk drives (one is 3 1/2 inch). I keep the File Express (FE) programs on drive B, the 3 1/2", and keep my data sets on 5 1/4" floppies.

I decided to update FE to the new Version 5.01 by ordering it in response to an offer from Duvall, WA. I requested it on 3 1/2" disks. I gave up trying to decompresss the programs and wrote to the Company. Their letter is printed below. The information may be of interest to other PCjr owners.

Bob Wynd, Worthington, OH

ExpressWare Responds

File Express 5.1 won't work with your PC-jr because it needs just over 1.2 megabytes of disk space and your two floppy drives won't quite accomodate that much space.

The minimum requirement is two disk drives where one of them is a high density floppy drive. If you can't use the program because of the above requirements, you can send the complete program package to us in resaleable condition and we will refund your money on the program itself.

Mike Frysinger, Tech. Support

When all Else Fails.... Read the Manual!

I recently had an experience that enlarges on the maxim "When All Else Fails, Read the Manual." It may be a lesson for others. I have a Jr. upgraded by Hotshot to 640K, and an Epson LX810 printer. I use PC-Write Version 2.6, to which I upgraded years ago from an earlier version of this fine word-processing program. Along with the new disk and manual was a little pamphlet of notes for those who previously used an earlier version, mostly calling attention of changed ways of executing certain commands. I read it, and the manual, carefully.

All I did with the new disk was insert it in my disk drive and make working disks from it in accordance with the manual's instructions. I've used the program happily ever since until recently, when for the first time I needed justified text. It didn't work. The test showed as justified on the screen, with dots indicating where the program had entered extra spaces to fill out each line. But the printer ignored these. I'm no expert, but I could see how the program's print control file programmed certain keys to work with the Alt key, to print control functions such as U for underlining. H for superscript, I for *italics*, B for **boldface**, etc. In doing so

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 jrs 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 youve ever heard on your PCjr. Disk includes a separate program to activate Juniors 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 youve ever heard on your PCjr. Disk includes a separate program to activate Juniors 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)

Reader Feedback
(Continued from page 5)

it utilized decimal code values for these operations that I could find in Epson's chapter on escape codes. I found J in the control file, using Epson's decimal code for justification in exactly the same way as the other commands. But using J as described in the manual didn't work.

Finally I got out the original program disk to get my owners registry number with which I could ask the program's publisher for help. When I booted it up, it presented a "how to get started" paragraph which I had previously ignored since I already knew from previous experience. This time I read the paragraph and there at its end was this line: "Read JUSTIFY.DOC for last minute information on justification." I did, and found three lines to be added to the program's printer control file for Epson LX printers. With these in, the J command works just as well as the others.

That's all I needed. Moral: Don't take the manual as gospel. Be sure you know what additional information may be on the program disk. I'm sure this is probably true of all shareware programs and very possibly of fancier programs as well.

You might be interested in some of the bizarre results I got in fiddling with that J command. I tried it in the test, where other commands go, instead of in the edit control ruler line. Tried it there both with and without the Alt key. One way gave me right justified text, all right, but

ragged left. The other printed my text with no spaces in it at all . Even the Print Screen Key misbehaved. It printed the test justified as shown on the screen, but replaced all the screen's dots with the letter "y."

George Elwers, Shenandoah, Iowa

Reader Finds Source for Jr Parts

I just recently obtained "obsolete" PCjr accessories from a Computer Shopper advertiser, Mendelson Electronics of Dayton, OH, at very good prices, so I thought I would pass on the information.

During the past few months, Mendelson has advertised the following:

Phone # 800-422-3525

Item   Price   S&H   TOTAL

Keytronic KB-5149jr
Numeric Data Entry Pad
          19.95   6.00   25.95
IBM external power
supply (sidecar)
          9.95   6.50   16.45
IBM PCjr Joystick
          9.95   6.00   15.95

I received the number pad and an IBM power supply sidecar for a total price of $42.40 and I am very satisfied. Both were brand new in their respective factory package.

Keep up the good work with the newsletter, as it is the best source of PCjr information. I have enclosed a renewal for two more years on my subscription.

Thomas Blake, Falls Church, VA

Especially for Junior

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

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 jrs 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)

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

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

THE BEST OF JR NEWSLETTER II. All the major articles and columns from June 1987 through May 1988 issues of jr Newsletter. Subjects cover most aspects of PCjr operations with tips on compatibility, DOS, expanding and speeding up PCjrs, best software, etc. Easy search function finds subjects quickly. 128K ok. (Disk #66)

THE BEST OF JR NEWSLETTER III. Disk contains most of the major articles published in jr Newsletter from the June 1988 issue through May 1989. Articles on compatibility, PCjr hard-

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, multiplewindows so you can edit in one and search in another, etc. Requires 256K. (Disk #19)

FILE EXPRESS. (V4.22) Very easy 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. Its the best of many weve 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)

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

Educational

Geography Trivia game on capitals of the world, populations, areas, cities, languages and currency. 128K OK. Reviewed 3/92. (Disk #138)

FIRST AID TUTORIAL Learn or review your First Aid Lessons with this tutorial prepared by a Certified First Aid Instructor. The time to learn first aid is BEFORE you need it! Reviewed 3/92 (Disk #137)

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this ability. If you still have DOS version 2.1, upgrade to a later DOS -- if you can't upgrade, do this: Format a second disk with the "/V" option and label it immediately with the new label (VOL) change, then use COPY *.* to this disk from the one which needs a label change. We (Q&A) searched in our archives and found a Shareware program which we have sent to the Jr Newsletter Software Store. By the time you read this it could be on one of the offered diskettes. We tried it and it works beautifully with all DOS versions from the original IBM PC-DOS ver. 1.0 (Yes, Virginia, it really existed...) all the way up to DOS 5.x!

Q I cannot get my regular disks to go into my new 3.5" drive. How can I get my games on these disks to run?
April Fule, Noaire, DAA

A. We assume you are no beginner, as you have a new 3.5" drive. First you must FOLD the diskette exactly in half along the center of the oval opening. Do not use copies, use only originals for this operation or it won't work the way we feel it ought to for you. Now you can insert it into the 3.5" drive. If you cannot fit it in smoothly, you may need to be more agressive with the folding. Just heat up an ordinary clothes pressing iron to about the "cotton" setting and apply to the diskette until the fold is complete. The steam or steam "shot" will not be necessary. When the sides stay (stick) together it will

be perfect for insertion. We do caution, however that you cool it first. (Or, better yet, freeze it -- ED)

Q. IBM should of put the on/off switch on the front of the jr where my kids could get at it easily because now they are really mad at me because they like to flip the switch to "crash" my jr for fun while I have spreadsheets up here in my attic from work or other office programs running and they can't get at the switch without me noticing so they try all kinds of tricks to divert me such as one of them falling down the stairs with her glass of orange juice while another sneaks in between my legs to get at the back of the stack of boxes I have the computer sitting on and even though I squeeze him hard he gets at the ON/Off switch while the one at the bottom of the stairs yells about putting on her own Band-Aids and lets the dogs out of the cellar again to bite the next door neighbor in his other leg so the next thing you know the police come banging on the door and I have to leave the computer for a little while to pull the dogs back into the cellar and the kids finally get to the switch and turn it on and off just for a little fun. None of this would of happened if IBM put the switch on the front where they could get at it. Why didn't they do that? Even I can hardly reach it in the back where it is.

Won Avril, Overrainbo, AAD

A. They are merely seeking atten-

ARE YOU READY FOR CALCULUS? Excellent review of Algebra and Trigonometry skills youll need before taking Calculus. Provides help in needed areas. Designed by professor in University of Arizonas Math Department. 128K ok Disk #117)

BIBLE QUIZ. Excellent quiz game tests knowledge of both the Old and New Testaments. Provides answers and biblical references for each question. For one to three players. 128K OK. (Disk #85)

BRAIN BOOSTER. Includes IQ Builder, a program that both teaches and tests your ability to solve number, analogy, synonym and antonym problems like those on IQ and SAT tests. Also includes Algebra and Chemistry programs. For high school and up. 128K (Disk #43)

COMPUTER TEACHER. For those who want to learn how to use DOS commands and to understand basic computer hardware terms, this interactive software will help you become computer literate. Helps you better understand those manuals and computer magazines, as well as how to do more with your computer. 128k (Disk #77)

CROSSWORD CREATOR V3.30. Make your own puzzles up to 36 columns by 22 rows. Many helpful sorting and placement features. Prints out on virtually any printer. 256K (Disk #71)

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

EQUATOR. An excellent way to learn and review 35 basic equations used in math, finance and science. Learn to compute the volume of a cylinder, compound interest, or average velocity and much more. Manual on disk. 128K (Disk #20)

More Educational

GAMES FOR EARLY LEARNERS. Young children like Teach Tots 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 youd 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 skil levels from very easy to very difficult words. Fun way to become a spelling champ! 256K ok (Disk #82)

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(Continued from page 6)

tion. To give them the attention they crave, write letters to them - lots of letters - IBM LOVES letters! As for the kids, it goes like this: You are taking work home and are not giving them what is now called "quality time." For yourself, do not be be so hide-bound as to think you must operate the jr only from the face where the drives are. You could be operating the computer from the other end. Remember, it's all in the keyboard if you have a cable. Turn the computer around and ask the kids to help you. They can crawl to the wall and put the disks in the drives for you... see the above answer for tips on how they can prepare the diskettes for you. This will allow one of the others to easily get at the on/off switch AND all those inviting cables and they'll be having so much fun they won't be mad at you any more. You might even consider bringing a tall stool up to your attic office. Put it at the edge of the top step before you stand on it...

Q. I'd like to have a hard drive for the jr but would prefer one which integrates with the PC jr's design. Do you have any information about any (used, if possible) hard drives like this?
P. Wiest, Seattle WA
A. At least two of our advertisers have been taking trades and buying parts, so they should have used equipment for sale. Check them out first. If you can live with the aesthetics of external peripherals, they can

also help out there. Be sure to inquire about the new parallel port connected hard drives as well. Sizes are between 20 and 80 Megs, maybe bigger when you read this. They are compatible and are reputed to have decent performance, around 20 - 25 m sec access. A "dongle" is plugged into the parallel port and your printer is plugged into that. This acts as a "pass-through" for the printer so there's no change to that. Another cable comes out of the side of the dongle and connects to the external drive in its housing. You then run some set up software (probably a device driver...) and you've got it. This is a real possibility for some folks who cannot get too elaborate. Believe it or not there are even a couple of these parallel port manufactured which have removable media. This kind might present a nice challenge to set up for hard disk booting with the different disks inserted, but who'd want to when the A: drive could do it every time? We think this would be a very safe way to keep data. Just think, a different hard disk for every occasion.

Q. My jr. has finally stopped altogether. It has been acting erratically for some time now and no one locally will repair it.

M. Wellington, Boston, MA

A. Your letter (edited to the above) explained enough for us to determine that you should contact some our advertisers for repair service. Yes, there is the additional expense of shipping, but they are truly PCjr

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)

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 players 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)

PC Enterprises Products Boost Compatibility

Speaking of an ideal world, he says, "If somebody goes to the software store, the product they buy should run on the junior." Of course, that is not true with an unexpanded PCjr, but with the two new products being marketed by PC Enterprises, that dream may soon become a reality.

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of shipping, but they are truly PCjr experts and are the people with the knowledge gained from specializing in and continuing to support the PCjr. The service costs seem to us to be perfectly reasonable in today's market and with the added efficiency of bench testing you'll save money in the long run. Remember, they will have the parts right there, too, so additional delays will not be added to your problems.

Jr Newsletter Reader's Wish Comes True

Last month, we published a letter from Joseph F. McLean stating that he wished somebody would come out with a new BIOS for the Junior. At the time, PC Enterprises had already invested hundreds of hours in the development of such a product, and it will soon be released for sale. Their new **Compatibility Cartridge** ™ is actually a BIOS upgrade. The product is currently undergoing extensive testing, and Ca-

labria has requested help from our readers. His biggest problem in testing is finding programs that cause problems on the PCjr. He asks all PCjr owners to send a list of programs that cause them problems so they can test them with the Compatibility Cartridge.

Because there are so many diverse modifications used on PCjrs, it is hard to know if a compatibility problem is due to the basic PCjr or to the modifications which have already been added. Calabria estimates that nine out of ten reports of a program not working on PCjr are correctable by a change in configuration. So, when you send a list of "problem" programs, be sure to include a copy of the AUTOEXEC.BAT and CONFIG.SYS file, as well as a note on what version of DOS you are using and the version number of the program in question. He finds the most common problem in configuration is that users fail to get the switches correct for JRCONFIG.

The PC Enterprises BIOS upgrade will be a solution for all known problems caused by differences between the PC and the Jr's BIOS, as well as offer some help on hardware incompatibility issues. "We believe that we can make the PCjr 100% BIOS and DOS compatible simply by plugging in the new Compatibility Cartridge," Calabria says.

For example, a PCjr, with the Compatibility Cartridge and DEVICE=JRCONFIG.SYS (no switches required!) in the CONFIG. SYS could run PC DOS or MS DOS

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 its printed out for you. Or try Quotefall, a unique type of scrambled word puzzle. And then theres 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. Its fun to use, has four levels, the last with a missing letter for the child to fill in for beginning spelling. 256K (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. 256K required. (Disk #126)

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)

PIVOT! Allows you to view and print spreadsheet files. The files can be printed either in landscape or portrait on any Epson compatible dot matrix printer. Can be installed as an Add-In Utility in As-Easy-As. 384K recommended. (Disk #136)

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)

Writing Essentials

GALAXY. One of the easiest to use word processors weve 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 wont even have to read the manual. 256K ok. (Disk #69)

MIND READER. Experience the wonders of artificial intelligence! Use a full-featured word processor that guesses the words that youre about to type. Works like a charm! 128K ok. (Disk #74)

PC-WRITE LITE. The most powerful shareware word processor in a condensed but still incredibly useful package. Unless you need things like microjustification, indexing & mail merge, Lite can do what you need. 384K recommended. Reviewed 8/91 (Disk Set #5) $10 for 2 disks.

PC-OUTLINE. Organizes thoughts, notes, lists of just about anything. Powerful features create logical outlines, merge with your word processor, customizing allows you to rearrange and manipulate data. Outperforms many commercial programs, says PC Magazine. 128k. (Disk #17)

PC Enterprises Boosts PCjr Compatibility

5.0 without any patches or switches. All you need to do to set it up is follow the regular instructions that come with the product. Even the QuickBasic and Editor which come bundled with MS DOS 5.0 run without a hitch with the Compatibility Cartridge. (Without the cartridge, you would have to patch the DOS, then use the INT 9 fix--see John King article in Jr Newsletter issues of August and September, 1991.)

Although there are currently a lot of disk-based solutions to specific problems, (such as the INT 9 fix mentioned above), many Junior owners do not have the time or inclination to learn them.

With the PC Enterprises' Compatibility Cartridge and the one-line DEVICE=JRCONFIG.SYS, Junior will check for the Compatibility Cartridge. If it is there, it installs all the compatibility fixes. If not, it just ignores it. The cartridge fixes the following:
* INT 9
* INT 10
* INT 13 and
* more than 35 other fixes.

The fixes will allow the Compatibility Cartridge to correct hardware deficiencies or differences that make some programs difficult or impossible to run a program on the Junior.

For instance the disk drive controller is located at one address in the standard PC and at another address in the Jr. Since standard PC's

use Address F0 for the coprocessor, when a program checks the machine for a co-processor it checks that address. However, if you are running the program on the Jr, what it finds there is your disk drive controller. Thinking it has found a coprocessor, the program will make the disk drive act flaky. It can cause a DRIVE NOT READY error, although there's actually nothing wrong with the drive. One program which often has this problem is ALF published by Box Office Software.

Although the problem could be solved adding a disk drive controller and adding BIOS support, the Compatibility Cartridge very efficiently allows the PCjr to recover from such problems with a soft-ware based correction. It simply sends a recalibration command to the disk drive. Calabria says that, so far, they have not found a program which the Compatibility Cartridge was unable to fix.

The cartridge will be priced in the $40 range. It will also be available in the Combo Cartridge™ format, as Combo Cartridge Version 3, which will offer all the features of Combo Version 2 , plus the compatibility routines. Those who own a Combo Cartridge Version 2 can have them upgraded to Version 3.

Although Combo Version 1 cannot be upgraded to the Compatibility Cartridge because it uses a different circuit board, PC Enterprises will offer a trade-in for owners who wish to upgrade to the Combo Cartridge Version 3.

New Game Master to offer Tandy Plus Ad Lib and Sound Blaster FM Sound Compatibility

Another new PC Enterprises product, the Game Master ™ , will give Junior 100 % Ad Lib compatibility and FM sound compatibility with Sound blaster. It can use the speaker inside the PCjr monitor or external speakers. With the Game Master installed, the PCjr will automatically run Tandy-compatible software in Tandy mode without needing the Tandy Mod.

In addition to running those programs that work on PCjr with the Tandy Mod, it will run those Tandy products that Junior currently can't run in the 16-color mode, even with the Tandy Mod. Most PCjr problems with the Tandy Mod are caused by hardware differences between the machines, and the Game Master adds hardware support for the 3D8 and 3D9 address, which Tandy programs often address to turn on the display. Because the PCjr is not aware of the 3D8 and 3D9 addresses, calls to these addresses in a standard junior result in a blank screen. With the hardware added on the Game Board, the Jr. works the same as the Tandy.

In addition, the problems caused the PCjr's use of NMI for reading the keyboard have been resolved by the Game Master. In the standard Junior, when a keystroke is pressed, the machine must stop what it is

Repairing a Tecmar Power Supply
By Paul Watson

When my Tecmar memory expansion (Captain and Cadet) started to bomb in the middle of programs, the problem was in the power supply, as confirmed by calls to the 800 number of the Tecmar technical support operation. The minimum service charge on units returned to Tecmar is $100. I made the repairs myself using parts from my local Radio Shack. The repairs can be made by anyone with minor electronic and soldering savvy.

Repair Procedure for Tecmar Power Supply

Symptoms: There were two very definite symptoms leading to the need for the parts replacement outlined below. The symptoms were:

(1) Random lock ups-traced to a faulty voltage regulator

(2) Error A message at boot-traced to rectifier

Repair procedure:

The voltage regulator is very easy to replace if one uses the Tecmar original mounting method...by plugging the four leads from the voltage regulator into the nylon receptacle soldered to the circuit board. This is the preferred method. Both the plug-in method and the soldering method are described below. The rectifier is a little more difficult to replace as it is soldered to the circuit board.

Materials required:

Voltage Regulator
  Radio Shack Cat 276-1770 $1.19
Rectifier
  Radio ShackCat 276-1151 $1.09
Heat Sink Grease
  Radio Shack Cat 276-1372 $1.49
Solder Sucker
  Radio Shack Cat 64-2060 $7.95
Solder 0.032 dia.
  Radio Shack Cat.64-005 $2.99

For Information-Mounting Kit for Voltage Regulator if needed Radio Shack Cat 276-1373

PCjr Compatibility

doing to read the in-coming keystrokes. On a standard PC, however, the incoming keystrokes can read later when the processor is available. This allows the computer to finish what it is doing before reading the keystroke. Because the Game Master changes the way PCjr interfaces with the keyboard to make it identical to other computers, keyboard input will not interrupt and crash program operations and the various patches to DOS 2.1 are unnecessary.

The game board is completely CGA compatible, and contains an added socket to allow an upgrade from 640K to 736K. It also has an added socket where a Jr ROM clock can be easily added.

The game board will come in two versions -- Game Master and Game Master Plus. The Plus version comes with a mouse that does not use the junior's serial port, thus freeing it for other tasks.

The product pricing will place it in the slightly less than $150 price range.

Replacing Voltage Regulator:
(1) Plug-in method-

Remove Tecmar Junior Captain and Cadet sidecars from the computer. Pry the Captain apart as described in the owner's manual. The voltage regulator is attached to the sheet metal heat sink by means of a small machine screw. Remove the two screws that hold the heat sink to the circuit board at the parallel printer connector. Gently pry the four leads on the voltage regulator from the nylon plug that is soldered to the circuit board. Remove the heat sink. Remove and retain the screw, nut, spacer bushing, and plastic insulator used to mount the voltage regulator to the heat sink.

Bend the leads on the replacement voltage regulator to match the regulator being replaced. Use a small amount of heat sink grease between each of the surfaces of the plastic insulator when replacing the regulator. Use the plastic spacer bushing, machine screw, and nut to attach the new regulator. Replace the heat sink and voltage regulator sub-assembly. Carefully align the plastic leads on the voltage regulator with the holes in the plastic plug and insert the leads as far as they will go into the plug. Replace the heat sink mounting screws. Install the circuit board into the case and replace the Tecmar units onto the computer.

(2) Solder-In Method:

Remove the heat sink and voltage regulator sub-assembly as described above. Use the solder sucker and a thin-blade prying tool to remove the plastic plug from the circuit board. Open the holes in the board by removing residual solder with a small drill or similar tool. Bend the leads on the voltage regulator at 90 degrees to the case at the place where the leads enter the case. Mount the voltage regulator as described in (1) above onto the heat sink. Replace the heat sink and voltage regulator sub-assembly onto the circuit board while carefully putting the leads on the voltage regulator through their respective holes. Replace the heat sink mounting screws. Use an electronic heat sink if available on the leads of the voltage regulator. Carefully solder the four leads that protrude from the holes in the circuit board using minimal heat. When the solder flows-remove the soldering iron. Inspect for cold solder joint

Replacing the Rectifier.

Remove and disassemble the Captain module. Remove the circuit board. Remove the heat sink. The rectifier is the small black rectangular block adjacent to the plug where the external transformer plug attaches to the circuit board. It is about 1/4 by 1/2 by 11/16 inches. On the solder side of the board are the four solder points of the four leads in the rectifier. Use the solder sucker and thin-blade prying tool to remove the rectifier. Note the polarity of the holes in the circuit board by noting the position of the +, AC, and - marks on the rectifier being removed. CAUTION-polarity must be observed when installing the replacement rectifier.

Clean out the holes in the circuit board before replacing the rectifier. The replacement rectifier will have

the same +, AC, and - markings as the original. Align the "+" lead with its respective hole. Insert either of the two AC leads through their respective holes (it makes no difference which AC lead goes into which AC hole), and insert the "-" lead through its respective hole. Push the leads through the holes until the top of the rectifier is 1/2 inch from the circuit board. Use minimal heat and electronic soldering heat sink. If none is available, have an assistant hold the lead being soldered with a small pair of pliers. Solder all four leads. Now clip off the excess amount of leads protruding from the board. Use a small pair of diagonal pliers or equivalent. (I use an old pair of toe nail clippers.)

Reassemble the Tecmar Captain and Cadet to the computer.

Overview:

This procedure worked or me. It may not work for you. If you face the above symptoms, probably you have a power supply problem.

Also, since both of the above components will likely need replacement at some time, it makes sense to replace both of them at once.

EDITOR'S NOTE: The above article should prove very useful to owners of the Tecmar memory expansion units. However, we wish to point out that attempting to repair your unit voids the warranty and is undertaken at your own risk. We are not responsible for any problems that may occur as a result of your trying this repair. We hope this warning does not scare you away from performing this repair.

Hard Disk Basics

further divided into sectors, each sector normally holding about 512 bytes of data. Most drives have 17 sectors per track, although some have 25 sectors. These sectors store data in clusters, which is the smallest unit of information that DOS works with. Hard disks formatted under DOS 3.x have four sectors in a cluster, so each cluster stores 2,048 bytes of data.

Each sector has its own sector number, and the sectors are not usually organized sequentially. The interleave is the relationship between how fast the disk spins and how the sectors are organized, and the optimal interleave is dependent on the speed of the computer, the hard disk controller, and the drive. An interleave of 1:1 indicates that each sector on the track is numbered sequentially. An interleave of 2:1 means that sector 1 is the first physical sector, sector 2 is the third physical sector, sector 3 is the fifth, etc. The interleave is set up at the low-level format time (more about that in a minute).

The hard disk controller asks for data one cluster (four sectors at a time). An interleave of 1:1 may not be the most efficient for your computer. By the time that the controller reads and processes one sector of data, the next physical sector may have already spun past the disk head, so the controller has to wait for a complete revolution before the next sector's worth of data can be

---

read. This will increase the amount of time needed for the computer to get the data from or to the hard disk.

When you get a new hard disk and install it in the computer, the first thing you have to do is low-level format (unless your dealer has already done this for you). The process divides the disk into sectors in preparation for the regular format. You usually get a special program with your hard disk that performs this for you or it is done by your dealers.

The next step is to partition the drive. Partitioning separates the hard disk into logical drives. A large capacity hard disks might be logically divided into several logical drives, for example, C through F. Each logical drive is a smaller part of the whole drive. Partitioning is done with the DOS FDISK program, which destroys any data that might exist on the hard disk (so backup before repartitioning a hard disk).

The last step in preparing the hard drive for use is the DOS FORMAT, which identifies each sector, creates an area for the File Allocation Table, and optionally (if you use "FORMAT C:/S") installs the programs required to boot (start the operating system from the hard disk. Once you format each logical drive, the drive is ready for use.

The File Allocation Table, or FAT, is like the table of contents for your hard disk. Information in the FAT tells DOS where to find the physical parts of the data that is needed. If a file needs more than one cluster (four sectors, remem-

Hard Disk Basics

ber?) of data, the FAT will tell DOS what sector contains the next hunk of data.

Getting organized on your hard disk requires that you learn about subdirectories. Think of your hard disk as a giant filing cabinet. In the cabinet are many drawers (subdirectories), for instance, a WP50 drawer. This WP50 drawer could be called C:\WP50, where the initial backslash indicates that it branches off from the main, or ROOT (C:\) directory.

Within the WP50 subdirectory are files, either programs or data. The WP50 subdirectory could contain subdirectories of its own, such as a DOC subdirectory for documents. DOC's full name would be C:\WP50\DOC. Each subdirectory can have subdirectories of its own, but don't make more than two or three layers deep, or it starts to get confusing.

The point of subdirectories is to help you keep your hard disk organized. I usually recommend a separate subdirectory for each major program you have, and another subdirectory to hold the data. You might have C:\DOS, C:\GAMES, and C:\WP50 subdirectories; the directory structure would be:

```
C:\+- DOS
   |
   +- GAMES + LARRY
   |         |ADVENT
   |         +FLIGHT
   |
   +- WP50 + LETTERS + WORK
   |         |         + HOME
   |         + DOC
   |         + REPORTS
```

The C:\GAMES subdirectory contains three subdirectories, C:\GAMES\LARRY, C:\GAMES\ADVENT, and C:\GAMES\FLIGHT. By organizing the hard disk in this way, I can keep programs and data separate by application. That helps you find the program or data you want by keeping the number of files in any directory to a reasonable number.

There are several things you can do to make your hard disk more efficient. Organizing your files into logical directories will help. But there are some other tricks such as defragmenting your files and optimizing the hard disk interleave. But that's a subject for a later column.

Jr Power Pack III Offers Many Utilities

Jr Power Pack III provides utilities to make your PCjr more useful. Among the many programs included on the disk are:

- Boot33, a utility for quicker booting of DOS 3.X on the PCjr, by John King.
- JrHotKey: Multi-purpose PC-Compatibility driver of PCjr, fixes scrambled graphics on PCjr screens.
- SetMem.Sys: A device driver to shorten PCjr boot time for machines with more than 128K of memory.
- I48fix: PCjr 83 or 101 Keyboard Patch for PCjr.
- SAVEjr: Screen saver especially made for PCjr.
- Ramdrive configuration programs.
- Programs to run Disk BASIC and BASICA on the PCjr without the need of a cartridge.
- Device drivers to re-map the PCjr's memory.
- Utilities to label disks or change volume labels and eliminate the need to label the volume when it is formatted.
- Mice compatibility information.
- Bootsect, a program which replaces the boot sector on a DOS 2.1 disk for sytstems with add-on hardware.
- Programs which enable PCjrs with expansion cards to use cartridge BASIC.
- Tips for installing MS DOS 5 on a PCjr

- PC Enterprises' new version of JRCONFIG, which can be used with our without their expansion and compatibility hardware. Offers many improvements and benefits over the older versions of this PCjr standard.
- Printer utilities, and more

Power Pack III is Disk #140 in the Jr Newsletter Software Store on page 29-30.

USAMAP Calculates distance of journeys.

Planning a trip? USAMAP will calculate the distance between major American cities. The shareware program asks you to enter a list of cities you plan to visit, then calculates the distance for your trip.

The program is also designed to determine distances from major storms. It asks for the city location, and the longitude and latitude of the storm and calculates the distance from the city.

The program draws an attractive map of the U.S.A. on the screen, displaying a number of dots for various cities within the 48 states.

When calculating the distance between cities, a line is drawn on the map representing the most direct route which can be taken (based on longitude and latitude, not highway maps).

The map will be of interest to those planning trips and children studying geography and learning the location of the states. It is disk #139 in the Software Store on pages 38 and 39.

My Favorite Public Domain & Shareware Utilities

by R. Thurston Clark

DOS Shells, a DOS Shell is a program that combines many of the DOS commands in one program that starts up either with a menu, or a directory listing. There are a number of commercial products on the market and IBM put this feature in DOS 4.0.

DOS-A-Matic. I have version 2.06 of '85. By Steve Mykytyn of Marin Pacific Software, 1001 Bridesway, Suite 514, Sausalito, Calif. 94965.

This is a nice multi-colored, multi-menued program. It opens with a screen that reports: drives available (it shows 3 for me, including my "virtual" C drive); RAM (total & free); bytes per logged drive (total, free and % free); quantity of files; DOS ver. in use & Vol ID.

Move up or down with the arrow key to change the drive report. Tab to the next column to use DOS functions: Browse (HEX or text); Copy; Edit; Rename; Print; Change Attribute; Debug; Run & more. Hit <ESC> to back out, & again to gracefully exit. (DOSAMATIC is disk #49 in the jr Newsletter Software Store.)

SDIR. It is written by W. Larry Hatt, 76 Melville Drive, Nepean, Ottowa, Canada K2J 2E1. I like two versions: 2.6 and 5.0.

Ver 2.4 from '84 is just a Directory listing, but it provides 4 rows in alphabetical order. The only thing missing is the file date, but you can't have everything. Another nice program that does this, is called COVER.COM of '85 by Dan Daetwyler of Arkansas.

Ver 5.0 from '85, is similar in appearance to the above, showing the bytes in use and free, the quantity of files, volume label, date and time.

Pressing a slash invokes the command menu that includes: Copy; Delete; Type; Run, etc. The only problem is that the command portion only works on the logged drive. <ESC> provides a graceful exit. (SDIR is on Disk #65 in the jr Newsletter Software Store.)

LIST.COM is a program that has been around since 1984. It has improved with age, and I have looked over several versions. The author is Vernon D. Buerg; he can be reached at 139 White Oak Circle, Petaluma, Calif. 94952.

You probably have a copy of it somewhere or have used it and didn't know it. Many of the magazines that give you free disks with your new subscription, also shareware houses, typically use it to display a catalog of their programs.

LIST performs the DOS "type" function with the added ability to scroll through the text of an ASCII (flat) file. What is really nice is its ability to view word processing, data base and spreadsheet files. Yes, you can now view a dBase or Lotus file without having to boot up the program!

Up through 1987 LIST came in colors: 6.9L. 1/87, is green on black with blue headings; 5.91. 6/86, is white on blue. (LIST6OL.COM is on Disk #65, Jr PowerPack II in the Software Store.)

ST.COM, from January 1984, is called Super Typer. The author is Charles T. Franklin of 1850 K Street - Apt. 510, Washington, D.C. 20006.

It was written specially for viewing WordStar files and lets you look them over, not being bothered by the page breaks, indents, underlining, etc. There's an opening logo, then you get scrolled through the file to the end. Move back and forth with PgUp and PgDn. To exit just press the space bar. It also works on other word processing program files, but not as cleanly.

Originally published in
***The Phoenix,** NYPC Newsletter*

Rau Consulting Moves

Paul Rau Consulting, a regular advertiser in Jr Newsletter, has moved to Dyersburg, Tennessee, due to a job change in the family. Jeannette Rau will continue to provide friendly service to their customers from their new location.

Their new phone number is (901) 287-9147. *(See ad, page 22)*

Transferring Data from 1-2-3 To your Word Processor

By Margaret Levine

Lotus 1-2-3 doesn't have many options in the area of word processing. There's no easy way to do such things as boldface, underlining, superscripts, and the like. If you use Lotus 1-2-3 and a word processing program, you may want to include data from Lotus 1-2-3 worksheets in your documents. For example, you may want to include a table of figures from a 1-2-3 spreadsheet in a report for your boss, using your word processor to underline the headings, center the title, etc.

1-2-3 worksheets are stored in a special format which cannot be read by word processing programs. However, you can produce a print file from 1-2-3, which can then be read by your word processor. A print file is a file created by the 1-2-3 {/ Print File} command, and it contains the same characters that 1-2-3 would normally send to your printer with the {/Print Printer} command.

Here is a procedure for transferring information from 1-2-3 to your word processing program:

1. Run 1-2-3.

2. Retrieve the worksheet that contains the information to transfer, using the command / File Retrieve.

3. Give the command / Print Printer.

4. 1-2-3 will prompt you for the name to give to the print file you are about to create. Type in a filename, up to eight letters and numbers.

For example REPORT1. 1-2-3 will automatically append the filename extension {.PRN}. Press [Enter].

5. Next, you will see the normal 1-2-3 Print Menu. Choose Range and define the range which you would like to transfer to the print file. Press [Enter].

6. Choose Options. In the Print Options menu, set the left margin to zero by choosing Margin Left 0 [Enter]. Also set the top and bottom margins to zero (Margin Top 0 [Enter] Margin Bottom 0 [Enter]). You want to have zero margins so that 1-2-3 doesn't include any extraneous spaces or blank lines in your print file.

7. Quit from the Options menu.

8. You are now ready to create your print file. Choose Go.

9. Quit from the Print menu. 1-2-3 closes the print file and writes it to the disk.

10. Exit from 1-2-3 using the command / Quit Yes Exit Yes.

11. Using the DOS DIR command to see that 1-2-3 has created the print file on your disk.

12. To look at the print file, you can use the DOS TYPE command to display the print file on your screen, for example TYPE REPORT1.PRN.

The rest of the procedure depends on which word processing program you use. If your word processing program can edit plain ASCII text files directly, you can use the print file as it is. For example, using WordStar and PC-Write you can edit your print file.

However, many word process-ing programs store your documents in special formats. Most of these programs come with a utility to trans-late between their special format and normal ASCII text files. Consult your manual for directions. Here are the procedures to use for MultiMate and WordPrefect: MultiMate: Use the FILECONV program that comes with MultiMate to convert from a DOS file to a MultiMate document.

WordPerfect: In WordPerfect, press the [F5] function key and [Enter] to see a list of your files. Highlight the name of the print file and press 5 to read it in.

(The above article was originally published by San Diego PC-SIG)

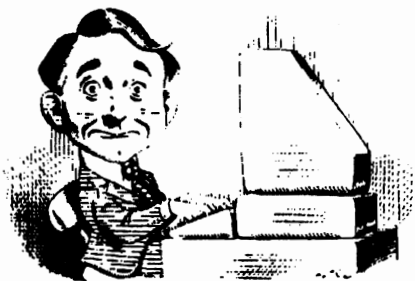## Quick Tip For Stopping Programs

If you find you are unable to stop a program by typing your break keys, you may not have set break on. Break is an inter-nal DOS command, so you can type break on or off at the DOS prompt at any time.

When break is on, DOS checks every time it performs a function to see if you have pressed the break keys. Other-wise, it only checks when work-ing with the screen, keyboard, printer or serial port..

To set break on automatically every time you start your comuter, add a line to your autoexec.bat file which says BRAKE ON.

What PCjr Error Messages Mean

POST Error	Problem area	Probable Cause
No beep. No image or wrong image on screen	Power	System board or Power board
One beep. No image or wrong image on screen	Display	System board or 64K memory and display expansion.
Two beeps. No image or wrong image on screen.	Power	System board or Power board
Three beeps. No image or wrong image on screen	Memory	64K memory and Display Expansion
Advanced POST, or portion of it goes into loop.	System Board	System board, Error 23XX
No Beep. ERROR 0AXX	Memory	System board
No Beep. ERROR 0BXX	Memory	64K Memory and Display Expansion
No Beep. ERROR 0CXX	Memory	64K Memory and Display Expansion
No Beep. ERROR 1YXX	Memory	System Board
No Beep. ERROR 2000	Keyboard	Keyboard
No Beep. ERROR 21XX	Infra-red	Infra-red receiver
No Beep. ERROR 2200	Keyboard	Keyboard
No beep. or Serial	Cassette	System Board
No Beep. ERROR 24XX	Modem	Internal Modem
No Beep. ERROR 25XX	Cartridge	
No Beep. ERROR 26XX	Diskette drive	Diskette drive adapter
Any ERROR message not listed in this table	Service plug	Ensure that service plug is good and installed correctly. Repeat advanced POST. If same message, replace system board.

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 PokerII, 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 jr Newsletter 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.

Newest Releases

Buy Two Disks, Get One Free!

* NEW * Jr Power Pack III A disk chock-full of utilities to get the most out of the PCjr, including a quick bootup disk for DOS 3.X, multipurpose compatibility drivers, patches for keyboard adaptors, ramdrive configuration programs, programs which adapt the PCjr to the multitide of new add-in products for the PCjr and get the most out of the original mode. 256K Reviewed 4/92 (Disk #140).

* NEW * USA MAP A program to calculate distances between two or more U.S. cities. Also calculates distance of a storm (longitude and latitude) to a given major U.S. city. 256K Reviewed 4/92 (Disk #139).

* NEW * CAPSWORLD Geography Trivia game on capitals of the world, populations, areas, cities, languages and currency. 128K OK. Reviewed 3/92. (Disk #138)

* NEW * FIRST AID TUTORIAL Learn or review your First Aid Lessons with this tutorial prepared by a Certified First Aid Instructor. The time to learn first aid is BEFORE you need it! Reviewed 3/92 (Disk #137)

• NEW • PIVOT! Allows you to view and print spreadsheet files. The files can be printed either in landscape or portrait on any Epson compatible dot matrix printer. Can be installed as an Add-In Utility in As-Easy-As. 384K recommended. (Disk #136)

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Typing Out Files Using Wildcards
By Hy Bender

While many DOS commands work with wildcards, the DOS TYPE command unfortunately does not. However, there are some ways around this.

Since wildcards do work with the COPY command and DOS permits you to redirect output, you can COPY files to the screen. For example, to display the contents of all files that begin with T (in effect, TYPE T*.*), you can use the command:

COPY T*.* CON

This will cause the COPY command to send a duplicate of each file to your monitor (or "CONsole" in IBM speak) instead of to your disk.

Another solution comes from Alan Jay of the London IBM PC User Group. Alan suggests creating the following batch file:

FOR %%F IN (%2) DO %1 %%F %3 %4

and naming it, say, W.BAT. You can then have the TYPE (command or any other DOS command) use wild cards by simply placing the W batch name before it. For example, to display all files that begin with T, you'd simply enter the command:

W TYPE T*.*

The %3 and %4 in the batch file are optional. They will only come into play if you use additional command line parameters.

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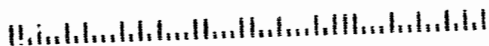Address _____

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