

# Jr Newsletter

December 1992

## Do Your Income Taxes Without A Hard Drive!

In response to reader requests for a 1992 Tax Program which will run on the PCjr, we have checked out several shareware programs. We are adding SHARE-Tax to our computer store. It runs on IBM PC's or compatibles, including PCjr, and requires only 370K free RAM and one floppy drive. DOS 2.1 or higher is sufficient.

But don't let the minimal hardware requirements deceive you. This user-friendly tax program features pull-down menus, mouse support, on-line help and automatic installation.

You can enter data in any order at any time, and instantly see the

*(Continued on page 25)*

### In This Issue:

Floptical Technology.....	2.
Questions and Answers.....	3.
Reader Feedback .....	5.
When Are They Obsolete?.....	6.
PC-Write Standard Level.....	19.
Cheap Add-Ons for Jr.....	24.
PCjr Classifieds.....	26.
What's New in Software Store.....	28.
Software Order Form.....	29,30.
IBM Back After Home Buyers....	31.

**PCjr Lives!**



## Jr News Shifts To Bi-monthly Schedule

It's not easy to face reality, but sometimes you have to do it. So we spent a couple of days recently asking ourselves some hard questions about the future of this newsletter.

First we had to admit that the number of subscribers is slowly but steadily shrinking. The number of faithful junior users is not as large as it used to be. People are giving in to the temptations offered by clone pushers--faster and faster computers, flashier software requiring megabytes of memory, huge hard drives, for less money than PCjrs cost when first introduced by IBM. We understand the lure of these glitzy machines, but we know that there are still many who find their

*(Continued on page 25)*

## The New Floptical Technology: New Alternative to a Hard Drive

Do you need more disk storage space? Are you thinking of adding drives to PCjr? Perhaps you should think about the new floptical technology.

Flopticals are a significant breakthrough in disk drive technology. The new floptical diskettes are being made by 3M and Hitachi Maxell, and are currently priced at \$25.00 for a 21 meg diskette. That price is expected to lower, as the new technology becomes more popular and widely marketed.

Pat Calabria of PC Enterprises has succeeded in developing a system which uses both floptical and standard diskettes. The unit reads and writes 720K and 1.44M dis-

kettes as well as 21 MEG floptical diskettes. The use of floptical diskettes is much faster than a tape backup-of an existing hard drive, or it may be used as a substitute for a hard drive. The units, which have about a 65 millisecc access time, combine the speed and performance of a hard drive with the convenience and removability of a diskette or cartridge storage system.

The floptical system offers the opportunity to set up one floptical for word processing, one for games, and perhaps one for your spreadsheets or databases.

PC Enterprises is marketing the floptical units as a complete Snap-on-Top unit for \$789. This includes an enclosure, power supply, TMC850jr with floptical support bios, sidecar, cables, software & illustrated manual.

Alternatively, if you already have the PC Enterprises Hard Drive, you can buy the system without the SCSI adaptor for \$669. If you don't have a hard drive, but want to use the floptical system as a replacement drive, you can order a kit which includes the SCSI adapter, a sidecar, cable, & all that's needed to mount it in the PCjr.

For users who already own the

*(Continued on page 24)*

jr Newsletter is published monthly by Crider Associates, P.O. Box 163, Southbury, CT 06488. Tom Crider, Publisher; Dorothy A. DeBisschop, Editor. Subscriptions are \$29 per year. Although every attempt has been made to insure that statements contained in this publication are accurate, neither the publisher, editor, or writers assume any responsibility for their accuracy. PCjr is a trademark of the International Business Machine Corp., which has no connection with this publication.



# 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. How will my jr run faster if I install one of the accelerator boards I read about in the Jr Newsletter? Most other publications keep on about the hard disk access, file transfer, etc. as the major bottlenecks.**

*G. Hughes, Adamsville, RI*

**A.** In the case of any computer, the physical stuff, (hard drive, CD reader, floppy drives) will be the slowest part of the system. Let's explore some of the ways these boards (accelerator and turbo) or chips such as the NEC V-20 speed things up.

Given: a hard drive which takes 33 ms (about 1/3 of a second) to access the data location. A jr which reads the data into its buffers then transfers it to the proper memory locations in about another 66 ms, depending on the length of the file. Total time is about one second. Only then is your jr ready for whatever is next to do.

Now, if we double the jr's bus speed, the read and transfer part only takes 33 ms, so now we do the whole job in 66 ms. This means we've just chopped 1/3rd off the total disk access time.

When you read about other ma-

chines and the access bottleneck, the machines are already running at speeds of 20 to 33 MHz and the read and transfer times are only a tiny part of the total, so doubling the bus speed would change the total only a tiny amount. This is often considered an example of the law of diminishing returns because a continuing given amount of effort, size or speed results in diminished amounts of improvement. The disk drive access times become the larger proportion of the problem and that's what you're reading about.

The major speed differences you'll find with the accelerator boards for the jr will depend on the board type and the various systems operations. Installing a NEC V-20 chip will seem to speed up the video graphics screen writes, but that's only because the V-20 chip does its internal work faster and sends the data to the video chips sooner. The actual video chips write to the screen at the same old speed. Think of it as being a bit like the disk drive access.

If you double the bus speed to about 9 MHz, ANYTHING being transferred to / from any memory

*(Continues on page 4)*

## Questions & Answers

*(Continued from page 3)*

locations will go at nearly twice the speed; everything from disk buffers to video information, so you'll really notice the difference all around.

If you put in a special video speed up cartridge, it will actually write to the screen faster. If you go all the way and put in a '286 and its accelerator board combination you'll feel you're in a whole new universe of speed because the bus runs faster and the chip runs more efficiently than the standard 8088 or NEC V-20, and it is being helped out by a cache to enhance operations even more. Think of the cache as a special patch of memory used as a kind of read and write-ahead buffer for the CPU to do its thing.

Remember, if you have ample memory, NOTHING speeds disk access up as does a properly used ramdisk. No matter which accelerator, turbo board or cartridge route you choose, keep using your ramdisk.

In summary, we DO recommend the accelerators highly. They do what they are supposed to do, and in this business that isn't always so...

**Q. I'd like to back up my hard disk a little more efficiently than with the DOS BACKUP routine. It really does take forever! Any ideas?**

*M. Cord, Secaucus NJ*

A. You have already inspected the setup and configuration disk(s) which came with your hard drive? Some of our suppliers include either a

shareware or specially written backup program.

If you want to spend the money for real pizzazz, get either Central Point Tools Version 6 or 7 or Norton's Utilities. They work without a hitch on our jrs and are really fast. They are both menu-driven and have selectable routines for beginners and help screens to ease the way. These programs compress and back up in one step and un-compress and restore like greased lightning. Both also include so many other utilities you can fill your hard disk to overflowing. Luckily you can choose to install only what you think you will find useful.

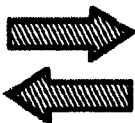
**Q. I am adding a second floppy drive. Can I still use the V-20 chip I have in my jr? If I install a Compatibility Cartridge? Will it still run at the same speed?**

*M. Tierney, Burlington VT*

A. Yes, keep the NEC V-20 chip in. There will be NO change in either its speed or other of its operations when the second floppy system is installed. The Compatibility Cartridge makes the jr compatible with more software, such as those programs and utilities written for standard PCs. It also does a good job of cleaning up PCjr-specific glitches in the operating system(s) and does this quickly during the boot procedure.

**Q. I have been given a gift of a used but operable dot-matrix printer. The problem is that it has only a serial input and I can't seem to get it to work with my applications. I already have an-**

*(Continued on page 10)*



## Reader Feedback



### Reader Likes His Jr

This letter is to get acquainted and let you know there is one more, additional, dedicated PCjr out here that has never written you before. I am a novice (still, after 3 yrs.) and I am very impressed with what this jr will do. I purchased from a buddy when he moved on to a 286, which is like "a dog chasing its tail" because now his 286 is as outdated as my jr, in only 3 years. My buddy really upgraded this jr and I am very thankful of that fact. I have: one floppy drive; four sidecars; 640K RAM; 33 meg external hard drive; IBM PCjr Color Display; Quicksilver Cartridge; Clock/Calendar Cartridge; AT/XT (XT) Keyboard; and Epson MX-80 F/T s/Grafrax-Plus. Jr can do everything needed in my small business. Yes, it is a little slow compared to a 486, but, so am I.

jrNewsletter has taught me a great part of what I have self-learned on computers and I appreciate your very informative and down-to-earth, well-written articles.

May I take this opportunity to extend one suggestion. It is not a new idea, but it could be very helpful, even more so, since your new magazine style Newsletter. Adopt the idea of using a one-character "symbol" indicating "the end" of every article in your newsletter.

*J. David Sarvis, Lake Wales, FL*

### A Tax Program That Runs on Junior

I know you don't answer letters unless you print them, but I have a question that might fit here.

I have been using **Turbo-tax** on my jr for a number of years.

Last year they made their program mainly for use with a hard drive, but you could get a program for use with dual floppies, if you called and asked for it.

This year I called to order the program and just happened to ask about the program for dual floppies; they said they don't have that option available any more, that last year was just a transition year.

I've been using the Turbo-tax program for years, and I just can't afford a hard disk at the present time. What is a person like me to do?

Could you help me find a good tax program that could be used with a dual 5 1/4 floppy system?

*D. Sorrent, Tempe, AZ*

**Editor's Note:** We've found what you're looking for! We include a review of **SHARE-Tax** on page 1, This 1992 Tax Program which will run on the PCjr, with 370K free RAM and one floppy drive. DOS 2.1 or higher is sufficient. Order Disk #148 in the Software Store on pages 30-31 of this issue.

**Educational**

**CAPSWORLD** 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)

**ARE YOU READY FOR CALCULUS?** Excellent review of Algebra and Trigonometry skills you'll need before taking Calculus. Provides help in needed areas. Designed by professor in University of Arizona's 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)

(Continued on page 7)

## When are Computers Really Obsolete?

By: J. Wesley Mercer, Sr. Secretary and Editor of the Atlanta PCjr User Group Novice Member of the Atlanta PCUG

Every Sunday in the Business Section of the *Atlanta Journal* and the *Constitution* Bill Husted and Jack Warner write timely and helpful articles about PC hardware and software. Both of these gentlemen are on *Access Atlanta*, the Journal-Constitution's electronic information service to answer on-line questions subscribers may have about their PC's. Usually their articles are printed next to the three-quarter page advertisements by Micro Center and Computerland Express or other mass merchandisers of computer hardware and software.

Every Sunday I rush to the paper to find these pages. The first thing I do is read the advertisements for the latest buys offered by the mass merchandisers. The prices are unbelievably low as compared with what most of us paid for our less powerful and slow PCjr's. If we are to accept "TechnoBuddy's" message in the August 23rd Sunday paper our equipment is not only less powerful and slow; BUT, our equipment is in the category of "OBSOLESCENCE."

Just reading the advertisements about the good deals for "hot" hardware and software makes me feel inadequate as a PC user. Now my ol' "TechnoBuddy" who I've enjoyed

reading every Sunday tells the whole world in two articles in the same paper that my PCjr 8088, 4.8 mHz CPU is "...an antique..." and is in the "OBSOLESCENCE" category. How will I face my friends? Now they all know! "TechnoBuddy" said so in his article "A brief history of the computer chip -- by the numbers" and especially in his article "Frustration over old chips justified." Jack Warner does not talk about the issue of obsolescence directly in his products review article entitled "From Snoopy to gnomes, PC games for children combine fun, learning"; but, as you read his article it can be seen that his terms like "mouse friendly", "unobtrusive audio", "sound cards", and "charming graphics" seems to assume the latest in equipment and software, lots of memory, and a fair number of bells and whistles.

Having read the advertisements reinforced by Bill's and Jack's articles, I am left with but one solution to my dilemma! I must go out, hock the house, and buy the most powerful and fastest CPU available with all the bells and whistles that can be attached and driven by the latest versions of *Windows* and/or *OS/2*, or maybe just plain old *DOS 5.0*!! Now, what was the name of that "DOS does it all and you don't need *Windows*" article in a recent *LPT1:Atlanta* newsletter?

I told my wife Jimmie what I had to do. She smiled as she always does before she speaks to me. Then she stopped, looked up from her job of paying the bills, steadily locked in

*(Continued on page 8)*

## PCjr Software

*(Order form on pages 29-38)*

**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)

**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 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)

*(Continued on page 8)*

**SKYGLOBE 3.1.** Newest version includes mouse support, runs from main executable file for faster operation. View map of heavens customized to your location, date and time. Many useful features, including find, print, zoom in and out. Reviewed 11/92 Requires 250K free for mono, 440K full color mode. (Disk #129)

**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)

**USAMAP.** 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 (Disk #139).

**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)

*(Software Store continues on pg 10)*

## Obsolete?

*(Continued from page 7)*

on my eyes, and calmly asked me, "What are you going to do with all that computer stuff you now have?" She was still smiling. For a fleeting moment it looked as if she may have been barring her teeth? No, no, not my wife Jimmie! Suddenly I realized she was still speaking to me as she supported her question with a statement. She said, "You ask weekly questions of David Wilson and you openly admit that you haven't yet learned how to fully use your hardware or software." I thought to myself, "She's been reading my BBS mail. I don't call David. I write David and a half dozen other people six or seven times a week on the BBS." Then, as I was preparing to answer Jimmie's fully documented question, which was like a blow to the solar plexus; she asked, "How much faster in seconds of saved working time are 10, 30, or 50 mHz as compared to 4.8 mHz?"

I had not completely formulated my answers to either of those questions when she tried to knock me to my feet by asking, "What else do you really need to be able to do with the new PC equipment you propose to buy that you couldn't accomplish with the old PCjr "stuff", given that you are retired, you certainly have a few spare minutes on your hands, and, as usual, you haven't learned to fully use what you already have?" I was exasperated! Jimmie had fed back to me some of my very own words but of course out of context.



She had misquoted "Husband/Wife Privileged Information" which was spoken in confidence. She had violated the rules!

In a cleverly planned stratagem, I made no attempt to answer her questions. Instead I skillfully and emphatically told her "YOU just didn't UNDERSTAND!" Then to add masculine emphasis to my stratagem, I slinked away in a "devil may care" gate to the comfort of my old, slow and obsolete PCjr. I left Jimmie to suffer in the stinging rebuff I had just handed her! After all, it is a "Wife's Duty" to "Understand" and especially it was a "Wife's Duty" not to repeat "Husband/Wife Privileged Information". Jimmie had failed in her primary "Duty" of "Understanding" and "Not quoting", so how could she understand? I left her so maybe she could at least get back to her secondary duty of paying the bills on time!!

As I stared at my PCjr, I remembered that my grandsons wanted a new version of a baseball game called "Hardball III." I could not get the program to work on my PCjr computer because it required 2MB of RAM which I do not have. Hey, maybe I could get Jimmie to spring for a 1024K PCE Megaboard for \$325.00. This would give me 736K of conventional memory and 928K of extended memory. -- Why didn't someone initial set RAM at 4MB expandable to 64MB instead of just 640KB? --

I then recalled that "Hardball II" works well on my computer with just

*(Continued on page 14)*

## PCjr Software

(Order form on pages 29-30)

**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 largetype 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 its 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. 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)

### Writing Essentials

**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. 256K ok. (Disk #69)

**MIND READER.** Experience the wonders of artificial intelligence! Use a full-featured word processor that guesses the words that you're 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-STYLE.** Perhaps the best of many programs that help you make what you write more readable. Jim Button made this a very slick, useful tool for improving your writing. It reads and analyzes what you write, then gives you a detailed analysis based upon several useful standards. Fast, easy to use. 128k (Disk #76)

**PC-WRITE.** This extremely popular word processing software is both powerful and easy to use. A review in PC World said, PC-Write may well be more versatile than WordStar; its certainly more straightforward. Version 2.5 runs well on 128K. Version 2.7 has more features and needs 256K to run without the spell checker, which needs 384K. Version 3.02, the most powerful, needs 512K. (Order Disk #1 for 128K V2.5. Order Disks #2A and 2B for V2.7. Order Disk Set #1 (3 disks) \$12 for V3.02.)

**SHARESPELL V2.2** This update of popular spell checker has 112,000 word dictionary. It checks your word processing documents for spelling errors and replaces with correct spelling. Works fast and has ability to add your own words to dictionary. 384K. Reviewed 7/91 (Disk #94)

### Home & Family Management

**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)

*(Software Store continues on pg 13)*

## Questions & Answers

*(Continued from page 9)*

**other printer connected to the parallel port sidecar and it works fine. I have the proper serial cable and adapter all connected but I don't know how to choose between the two printers. There has got to be a way!**

*B. P. Seattle WA*

**A.** There certainly is a way! You can direct each of DOS's LPT outputs to each of the printers. What - you don't have two LPT outputs? OK here's the trick:

LPT1: is already connected to your original parallel printer. Any application which can print to LPT1 or PRN should already be working.

Now you set up DOS to take care of LPT2. In your AUTOEXEC.BAT file, add the TWO MODE statements in the following order:

First:    MODE    COM1:  
1200,N,8,1,p You must have the "p" at the end; it means a printer is attached and takes care of acknowledgements, time-outs, etc. Check your DOS manual for the other parameters and add or change whatever the PRINTER manual recommends.

Second: MODE LPT2:=COM1  
The serial port COM1 will now be addressed as LPT2 for output and DOS takes care of the conversion.

That's it. Reboot and you should be able to choose the second printer at any time by applications which can write to LPT2. If you still have a problem, try changing the batch file references above from COM1 to

COM2. If you have an internal modem, or a card in it's slot and still have a problem load SWAPCOM2 from the Software Store disk #65 Power Pack II. You'll find the combination of COM 1 or 2 which works in short order. Make sure you switch your tele-comm program to address the unused COM1 or COM2 as necessary to access the modem!

Another little check is in order here. Watch out for applications which write to PRN because the default for PRN is LPT1, though you can usually change the PRN output to LPT 1 or 2 output right in the application's setup or configuration arrangement.

**Q. When I bought my hard drive there was no inexpensive way to boot from it. I must boot from my A: drive. Now I have DOS 5.0 and wonder if there is some way to do this? It seems to do just about everything else! If not, can I speed up my boot via the CONFIG.SYS or AUTOEXEC.BAT files on my A: drive?**

*P. K. Denver, CO*

**A.** If there is a hard drive recognition statement in your CONFIG.SYS on the A: diskette, place it as near as possible to the beginning where it will still function properly. Next, use a "C:\\" prefix for ALL the rest of the \*.SYS, \*.COM and \*.EXE files which the CONFIG.SYS file calls for, then you must COPY the necessary files, including COMMAND.COM, to the root of the hard disk. Because the hard disk is recognized immediately upon completion of the hard disk statement it is already available for

reading and writing so the rest of the files CONFIG.SYS needs will be read quickly from the hard disk! Place the additional statement SHELL=C:COMMAND.COM C:\ /p early in your CONFIG.SYS file so DOS will henceforth look for COMMAND.COM in the root of your C: hard drive.

Copy your AUTOEXEC.BAT and any files IT calls for from the A: diskette to the root of the hard disk.

Rename this copy on the hard disk CONTINUE.BAT and edit it to add a new FIRST line. The line is simply "C:" no quotes, nothing else!

Make a new AUTOEXEC.BAT for the A: diskette and in it have one line only -> c:continue

Now not only is most of CONFIG.SYS read from the hard disk but ALL of the (old) AUTOEXEC.BAT is read from the hard disk as well and you're there at the C:> prompt, ready to go. Our own system(s) show a surprising amount of time saved.

**Q. Is it possible to use a mouse AND a comm. application at the same time on the jr? I have a menu system for Procomm which supposedly allows a mouse to choose the action. How is this possible?**

*W. Late, Albany NY*

**A.** For a machine like a PS/2 where the mouse has a dedicated card and or port, there's no problem because these are two separate inputs. If the mouse is connected to a serial port and the comm. pgm is,

*(Continued on page 12)*

## Questions & Answers

(Continued from page 11)

too, you'd think it's all over, but that isn't always the case.

An understanding of how the COM ports are activated can clear up all kinds of problems.

Here's the way it's supposed to work:

Port Num. - Int Request - Address (Hex)

COM 1    IRQ 4        3F8 to 3FF

COM 2    IRQ 3        2F8 to 2FF

Now here's more fun:

COM 3    IRQ 4        3E8 to 3EF

COM 4    IRQ 3        2E8 to 2EF

Various hardware pieces tell the BIOS via switches or jumper blocks they're at a certain address and need to use the proper COM number so the IRQ level should work out

automatically. When all goes well, you can see that a mouse can use COM 1 and a Communications pgm. use COM 2 and there is no conflict. Woe to those who need to have a pile of serial ports connected to a pile serial devices... look at the IRQ levels carefully!

In the jr, however, there is a different glitch. When the jr HAS an internal modem installed it is called COM 1 and the Serial Port is COM 2 for any calls by the BIOS, DOS and BASIC. The above address and IRQ defaults apply and there is NO problem.

If, however, there is NO internal modem or card the RS 232 serial port becomes COM 1 for BIOS, DOS and BASIC even though the address is STILL 2F8 and it is using

(Continued on Page 13)

## PCjr Owners!!

Everything You'll Ever Need Plus Much, Much, More!!

- Memory Sidecars – Expand now to 1.2 MB!
- Second & Third Disk Drives which Snap-on-Top
- 3 1/2" 720K Disk Drives for PS/2 Compatibility
- Speed-Up Boards—Increase Speed to 9.54 MHz
- 20, 30, 40, 60 & 80 MB Hard Disk Drive Systems
- 101-Key Enhanced PCjr Keyboards
- Serial Port Compatibility Boards
- Modifications for Tandy Compatibility
- PCjr Compatible Software & Game Cartridges
- PCjr System Units with 128K or 256K
- Diagnostic Service Only \$25
- Replacement Parts and Service



"The jr Products Group"  
PO Box 292  
Belmar, NJ 07719

"Dedicated to the Support  
of the PCjr Since 1984"

(800)922-PCjr

(201)280-0025

Remember – When you purchase all your PCjr products from PC Enterprises you'll never need to worry about compatibility. Our new full color catalog now features over 300 PCjr products on 56 pages. Call or write for your FREE copy today!

## Questions & Answers

(Continued from page 12)

**IRQ 3!** What this means is that if a program does NOT use BIOS or DOS calls but reads and writes directly to memory it will assume COM 1 is at hex 3F8 using IRQ 4 and will do all kinds of nasty things! This is the major reason SWAPCOM was written. It re-aligns the COM label, the addresses and the IRQ level to straighten things out again.

This means that you can install an internal modem, plug a mouse into the serial port and you've got it! Alternatively you could use an external modem, run SWAPCOM, then STIKMOUS or Poor Man's Mouse and your joystick will get you around in the program if it isn't a mouse-aware program.

**Let software & hardware  
developers know that  
We're Still Here!**



**Write: PCjr on  
all registration &  
warranty cards  
& computer  
correspondence**

**PCjr Software**

(Order form on pages 29-30)

**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)

**EDNA'S COOKBOOK.** Will organize your recipes by subject, allowing for quick retrieval. Print out sorted collection for your own cookbook. 128K, 2 drives. (Disk #96)

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

**CALENDAR MATE V4.0** Design and print your own calendars with birthdays, meetings, events, appointments all listed for you. Many features. Easy to use with F1 help key available at all times. Need 512K. Reviewed 7/91 (Disk #115)

**SKYGLOBE V2.5.** View a map of the heavens customized for your location, date and time. Maps 10,000 stars, 300 with labels, 89 constellations. Many useful features such as brightness selection, zoom in and out, printing on dot matrix, a find feature, and an astounding on-screen demonstration of star and planet movement across the sky. 256K. Reviewed 7/91 (Disk #129)

**WILLS.** Written by a lawyer, this software helps prepare wills that are appropriate for many different situations. Includes 18 basic types, with many clauses that can be combined to create customized wills for most families. 256K (Disk #124).

**FAMILY TREE.** Powerful genealogy program with easy to use menu system. Prints handy research forms, checks your accuracy, prints variety of charts and can make your family tree into a book! 256K (Disk #109)

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

(Software Store continues on pg 14)

## PCjr Software

(Order form on pages 29-30)

### HOME BUDGET MANAGEMENT SYSTEM.

Easy-to-use system for keeping track of income and expenses. Create separate accounts for income tax categories and get a summary at end of year. Provides chart of accounts, transaction reports, sorted ledger entries, etc. 128 K. (Disk #57) Or v. 3.13 for improved screenwriting and disk access speed. 256K. (Disk #57A)

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

**RESUME SHOP.** Makes preparing a professional looking resume easy. Guides you through all the steps of the process with a series of menus and suggestions. One page limit. 256K (Disk #121)

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

**SAVE THE PLANET!** If you want to do your part to stop destruction of the earth's environment, this disk can help you. Let your PCjr explore this extensive database of information on the major environmental issues as well as what you can do to help. Charts, graphs, background facts, games and demonstrations all related to saving the only planet we have. Need 512K. (Disk #120)

### 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)

**MICKEY MOUSE ALPHABET.** Walt Disney characters with an alphabet theme. See Goofy riding in an (A)irplane to Mickey riding a (Z)ebra. We recommend Disk #145 (ViewImage) for viewing the pictures. If you have upgraded PCjr to VGA, then use the CSHOW program provided. Reviewed 10/92. (Disk #146).

*(Software Store continues on pg 15)*

## Obsolete?

*(Continued from page 9)*

640KB, so why do I have to buy a whole new rig just to install one new game which my grandsons will probably play for several hours and then move on to something more interesting? I remembered that "Hardball II" has features that none of my grandsons had used. They liked to play the game by simply pitching the ball, hitting and running the bases. They were not really interested in the full simulation of a league's tournament and the associated statistics. They certainly were not interested in down loading actual baseball statistics to a simulated league tournament which seemed to be one of the "Hardball III" requirements for huge amounts of memory. I began to feel somewhat better, if still inadequate, slow, old and obsolete just like "TechnoBuddy" described my 8088 PCjr.

Further contemplation caused me to reflect upon my experiences as a school volunteer for the last three years. Just like me, most of the school faculty I had met were frustrated by the realization that most of their hardware and software was "obsolete".

The administrators were particularly frustrated by the knowledge that many of the faculty as well as themselves were not computer literate. How did they know that? Every visiting vendor told them that they needed the latest hardware to be "network compatible" and to use

the latest in "multimedia" hardware and software. What are "network compatible" and "multimedia"? Most of the administrators and faculty had just learned to speak "PC."

Additional frustration was heaped upon the faculty when vendors didn't want to hear the teachers tell that they had never seen the realization of all the great things promised when the first computers were purchased, particularly since they were being told that their present computers were now obsolete. As far as I could tell, none of the vendors made any effort to suggest that the schools take their twenty five to thirty 128K Apple and PCjr computers purchased over the last seven or more years, install memory and network cards, and connect them to a purchased network to construct a computer lab that could be used by all classes and thus all students, not just a few students now and then.

Most schools using Apple equipment could afford to purchase one new Mac LC 40/80 to use as a file server. Likewise, in those schools using PCjrs the school could expand one PCjr to include 640KB of RAM and a 20 or 40MB hard drive. Then with either Apple or IBM compatible network licensed software they could construct a computer lab to be used by the whole school on a scheduled basis.

True, such utilization of older PC equipment would not provide the latest in speed and graphics;



**MICKY MOUSE ALPHABET.** Walt Disney characters with an alphabet theme. See Goofy riding in an (A)irplane to Mickey riding a (Z)ebra. We recommend Disk #145 (ViewImage) for viewing the pictures. If you have upgraded PCjr to VGA, then use the CSHOW program provided. Reviewed 10/92. (Disk #146).

**NORTHCAD-3D.** Computer Aided Drafting in 3-D makes professional quality drawings. Requires 2 floppy drives or a hard disk and 512K. Reviewed 9/92 (Disk #144).

**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 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 you've 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)

*(Continued on Page 21.)*

*(Continued on page 16)*

# Obsolete?

(Continued from page 15)

but, the utility of the existing equipment could be raised to a level where all teachers and students could productively use the hardware to teach and to perform personal productivity skills of word processing, spread sheet, and flat field data base applications to school work. Careful planning could make the MacLC and expanded PCjr file servers and licensed new work software useful beyond use in one computer lab. In discussions with vendor representatives, it became very clear to me that the Apple vendors had no intentions of encouraging expanded use of the Apple II series equipment used exclusively in schools. We all know the "Big Blue" long ago orphaned the PCjr. It was clear that the Apple vendors' mission was to sell new Macintosh equipment; although, unlike "Big Blue", they have been taught to avoid directly making such statements!

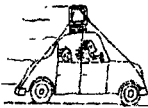
Sitting before my old, slow, obsolete, PCjr I somehow felt better. Then, I felt excited! I knew what I had to do. I had to learn how to maximize the use of my existing PCjr equipment before I think about committing more bucks on new equipment. I think that's what my wife Jimmie smilingly said I had to do? Not only that, I needed to get busy on the proposal I made to form an Educational Support Group. I hope you read my earlier article in the September *Orphan Peanut* in which I made that proposal. In keeping with that proposal, the Atlanta PCjr User Group needs to get busy constructing an exhibit to use at Georgia State's "Microcomputers in Education '93" conference. Teachers from all over the state will meet next March to attend this two-day conference at Georgia State University in beautiful downtown Atlanta.

To construct an effective exhibit, we first must evaluate with school personnel the trade-offs and utility of making maximum use of existing equipment at the schools versus the schools buying costly new equipment for limited use by a few students.

Why limited use by a few students? Simple! Annual school budgets do not permit purchasing enough computer equipment at one time to completely equip a whole school. Accordingly and with limited budgets a few pieces of PC equipment are purchased each year. Without a computer lab or dedicated computer instructor, individual class-

---

## Moving?



Please send your new address to us at least one month before you move. The Post Office will not forward your newsletters. Send notice to:

Jr Newsletter, P.O. Box 163,  
Southbury, CT 06488.



room teachers must find time to learn enough about how to use a single piece of new equipment to show a few students who are ahead in their schoolwork to engage in "enrichment" activities. There is a not so funny thing about this process. Many of the students who are ahead in their schoolwork have computers at home and know more about the use of computers than many of their teachers. Under the circumstance of limited hardware and software, the rest of the students get little or no exposure to the use of computers at home or at school. The teachers just do not have time to individually instruct in the use of computers.

My personal problem of PC utilization is simple compared with that of the schools, but the dilemma is

similar. How can I, and should I, use my existing PC equipment to its fullest potential before purchasing the latest in the PC market? Is it cost effective to keep expanding present equipment? Jimmie thinks I should stay with the equipment I now have until my real need versus mass merchandisers induced needs exceed my equipment's capability with cost-effective expansion. Where does she come up with these crazy ideas? Doesn't she realize that I want to have the same kind of toys as the "Big Boys?"

Similarly, should the schools bring both PC equipment and teachers up to full use of existing PC equipment before embarking on another round of progressive pur-

*(Continued on page 18)*

### **OOWL SOFTWARE**

1435 Burnley Sq. N.  
Columbus, Ohio 43229  
(800) 322-0219

#### **jrHotshot Memory Upgrades**

512K at \$149.00      256K at \$124.00

#### **2nd Floppy Disk Drives**

5 1/4" at \$169.00      3 1/2" at \$169.00

#### **Keyboard Adapter with Honeywell 101 Keyboard**

\$95.00

#### **Buss Expansion Cards**

Complete \$49.00    Partial \$20.00

#### **Jr Combo (5mod) Boards**

\$22.00

#### **PCjr Power Book/Software**

\$17.95

We have many Junior components

#### **Free Catalogs**

CALL or FAX (800) 322-0219

11 a.m. to 6 p.m. Mon-Fri



their limited resources; and, also being faced with an overwhelming demand to bring education in line with the country's employment skills needs, a way must be found to maximize the use of existing equipment. We must learn to manage acquisition of new equipment based upon a well-developed plan of transition from older but useful PC's to a high tech multimedia PC teaching environment. Acquiring a few pieces of the latest and the fastest PC equipment on an ad hoc basis driven by budget restraints only creates again the educational nightmare we now face of too little too late.

Consider what lessons we teach our children by not fully utilizing existing equipment for all students, just a few. Consider what we teach our children when we engage in another endless round of ad hoc, conspicuous consumption of what later becomes limited use of show pieces of PC equipment until they become obsolete?

I continue to solicit members to support the establishment of an Educational Support Group as discussed in my earlier article. We need your help to make a significant contribution to the quality of education in our communities. Your comments and questions are requested. You may reach me on the Atlanta PCjr User Group BBS (404) 418-9363 or at my home as follows:

*J. Wesley and  
Jimmie L. Mercer, Sr.  
Crabapple Community  
12450 Charlotte Drive  
Alpharetta, Georgia 30210-1408  
(404) 442-0569*

## **PC-Write-Standard Level Offers Superior Floppy-Disk-based Word Processing**

If you are looking for a word processor with the features of the big new programs, you don't necessarily need a hard drive to get what you want. Give PC-Write Standard Level a try, and join the thousands of users of earlier versions of PC-Write who are enjoying this versatile new program.

In fact, it's such a nice program, that hard disk owners may want to use it instead of some of the other advanced word processors available to them.

If you have used PC-Write before, you will appreciate the ease of upgrading to this new product. You may choose to keep your old print control file, or install a new one that handles margins and font sizes better.

### **New Pull Down Menus, But Many Command Keys Retained**

Most function key menus haven't changed in the newest version. But the pull-down menus are new and a pleasure. If you have an enhanced keyboard, a simple press of the Alt key brings up the pull-down menus.

Or, you can access the pull-down menus with a mouse, if you prefer.

For those with an original PCjr keyboard, you can use the Customizer to make Esc bring up these menus.

*(Continued on page 20)*

## Using PC-Write SL

(Continued from page 19)

To adjust the layout of your document, you can call up your pull-down menus and embed a new Ruler. When you change the settings, it you can set it so that it does or does not affect the prior Ruler line in the file.

With PC-Write, SL, you can open up to up to 10 windows! This allows you to work on multiple files, and to use the editing tools to cut and paste between documents.

The pull-down menus offer file conversion routines. WordPerfect and DCA files, as well as old PC-Write files can all be imported. Or you can work in the other direction, and export your document as a WordPerfect document to take to

the office for completion or printing. Conversions to various formats of ASCII is also simple with the new PC-Write SL menus.

The use of macros in PC-Write SL is slightly changed, and a few of your macros in prior versions will have to be re-defined, but the principles are the same.

The Find and Replace features include some improvements to allow a single space in the Find Text to match any number of spaces, . Or you can choose an exact match only.

### Font Changes

If you have a newer HP LaserJet or popular dot matrix printer, you will appreciate the improved font system in PC-Write SL. With it, you can set the size of



## Introducing THE NEW QUARTERPOUNDER EXTERNAL HARD DISKDRIVES

(anyone can install)

- Connect to parallel port with printer
- Battery operated, completely portable
- Pre-installed, plug-in and run
- Works with laptops and desktops as a primary and secondary storage device AC-only units to 530 MB.
- Approved by Toshiba, NEC, Zenith, Atari, PCjr, Poqet (All IBM compatibles, desktops & laptops)
- Weigh only 1.25 lbs., 2 year warranty

Special  
60 MEGS  
Only \$345



Order NOW &  
Get FREE  
Leather Case!

### Systems Peripherals Consultants

7950 Silverton Ave, #107  
San Diego, CA 92126  
Ask for Bob Richard

Phone: 619/693-8611

The QuarterPounder uses 20, 40, 60, 80, & 120 MB 2 1/2" drives. Features built-in rechargeable battery. Only 5x5x1.25" in.

FAX 619/693-1636

a font independently from the typeface. For example, you can make a word bigger by just changing the size, or use a bold typeface without changing the size. You also get many more typeface + size combinations.

### **Margin Changes**

Many printers (all laser printers) cannot print to the edges of the paper. PC-Write now knows about these unprintable areas and takes them into account when printing pages. If you set one-inch margins on all sides, that's what you get. For old files written under a previous version of PC-Write, if you set a zero top margin with .XT:0 (knowing your printer will skip the top half-inch anyway), PC-Write will warn you that a zero top margin is impossible and reset it to the minimum, say one-half inch. But it won't print this half-inch, since the printer will skip it anyway.

### **Document Formatting**

During installation of PC-Write, it asks if you want automatic document formatting; if you say yes, you get one-inch margins all around, set in the edit control file. To modify this, use the new pull-down menus to make the left and right margins smaller, or (if you prefer to work in the older PC-Write methods) remove the .XI and .XJ from ed.def.

You can use the pull-down menus to set paragraph alignment or indents. PC-Write then edits your Ruler lines as appropriate. It keeps existing tab stops and spacing commands. You may never have to edit a Ruler line again, except to set tab

*(continues on page 22)*



**PRESIDENTS IN PCX.** Graphics of all U.S. presidents from Washington to Bush. Good print quality graphics. May be viewed with ViewImage (Disk \$145) or included in publications. Two Disks - \$10.00 Reviewed 10/92. (Disk Set #6).

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

**Picture This** A label program which makes address labels with three lines of text and a PrintMaster or PrintShop style graphic on your dot matrix printer. 256K. Reviewed 5/92 (Disk #141).

**VUIIMAGE.** Picture viewer/printer for graphics in GIF/TIFF/PCX Format. It gives a fast display of even large images while needing only 180K of free memory. Works on PCjr monitor or jrs upgraded to VGA. Reviewed 10/92. (Disk # 145).

**PRINT PARTNER.** Shareware's answer to Print Shop. Does signs, banners, cards, calendars, etc. Requires 384K of spare RAM Reviewed 11/92 (Disk #147).

## **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 PCjr's, and the PCjr modern. 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)

**PROCComm PLUS TEST DRIVE.** This is the upgrade of the already powerful and popular ProcComm V2.42. Its got many new features including an improved host mode, context sensitive help screens, more powerful scripting. In addition to its power, its very easy to use. 256K (Disk #108)

*(Continued on page 22)*

## Using Pc-Write, SL

(continued from page 21)

**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 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. (Disk Set #4) \$12 for 3 disks.

### 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)

**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)

**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)

stops.

During install, if you indicate you want automatic formatting, you also get auto-reformat, auto-repage, and Hide mode by default. Auto-reformat mode does more than it used to. Pressing the Enter key normally inserts a paragraph break (Alt-K) in this mode (unless you change this with the Customizer). And changing the left or right margin, either by editing the Ruler with Ctl-F2 or through the pull-down menus, automatically reformats to the next Ruler. You don't need K, M, or Q "change margin" letters in the Ruler anymore.

Ruler lines now break paragraphs, unless you have an O letter somewhere in the Ruler line. For old files that change indent within paragraphs (say, for run-arounds) you must add this O.

Finally, the F7 reformat key now reformats the entire paragraph containing the cursor, not just from the cursor to the end. Use marking or a paragraph break to limit reformat.

To ease in the change-over from older versions of PC-Write, you can use the Link file feature to print existing documents with your old print control file, and make a new print control file for new documents.

### Header/footer Format

All Header/footer margins, fonts, and spacing are now set from the margins, fonts, and spacing in effect at the first text line in the file. Ruler lines have no effect, nor do subse-

quent format commands active when headers or footers are defined.

### **Printing in PC-Write-SL**

Printing is now fully integrated. There are no problems with incompatible Ruler lines or Dot lines between editing and printing. You should place only printer-specific information in your print control files. (Dot lines generally should go in edit control files.) Dot lines not supported in PC-Write Standard Level, but expected in Advanced Level (and often in PC-Write 3.0) are ignored with no message, so you can edit these files with Standard Level.

### **Macros**

Some old PC-Write macros may not work. Macros that use those menus which have changed won't work (but F2, Up Arrow/Down Arrow macros work). In general, operation numbers have not changed. If you're using macros, you may want to get the PC-Write Wizards Book, available separately from Quicksoft.

### **Mouse Support**

Mouse support is fully integrated; you don't need any special PC-Write mouse driver (just the standard mouse.com or mouse.sys system mouse driver).

### **Extensive On-Screen Help & Hints Available**

To make the transition to PC-Write SL easier, the program offers extensive on-line help and can be configured to offer hints above the status line.

PC-Write SL is Disk Set #7 in the Software Store, it contains four disks for \$15.00. See pages 29 and 30 to order your set today.

## **PCjr Software**

(Order form on pages 29-30)

**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.)

### **Especially for Junior**

**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 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)

*(Continues on pg 24)*

**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 hardware and software tips, regular columns, letters from PCjr users, and other informative articles. Utility to search for subjects included. (Disk #91)

**BEST OF JR NEWSLETTER IV.** For your handy reference, disk has the most informative articles, columns, and tips published in Jr Newsletter from June 1989 through May 1990. Easy to use search utilities provide quick ways to find any subject of interest. 128K ok (Disk #118)

**BEST OF JR NEWSLETTER V.** The best, most informative articles, columns, reviews, Questions and Answers from the June 1990 thru the May 1991 issues. Includes powerful search utility so you can find and read any subject easily. 128 ok (Disk #130).

**THE BEST OF JR NEWSLETTER VI.** Disk contains most of the major articles published in Jr Newsletter from the June 1991 issue through May 1992. Articles on compatibility, PCjr hardware and software tips, questions and answers from PCjr users, and other informative articles. Utility to search for subjects. 128K ok Reviewed 7/92 (Disk #142)

**Elmer Hungate  
Has Moved**

**Elmer Hungate, who buys  
and sells PCjr parts, has a  
new address, as follows:**

**RR#1 Box 103  
West Concord, MN 55985**

# Floptical Technology

(Continued from page 2)

SCSI device driver, you can purchase a floptical replacement system without the adapter for \$659.

The system can also be mounted on a PC with the use of a SCSI host adapter from Future Domain, so you can use the product with any new computers you may buy in the future.

Calabria reports the system, which was introduced in their current catalog, has been a real customer-pleaser. PC Enterprises has a satisfaction-guaranteed policy, but purchasers of the floptical technology have reported no problems with the unit regardless of their particular configuration.

To use the floptical drive with 720KB diskettes, DOS 3.20 or later is required; DOS 3.20 or later is required to use it with 1.44MB diskettes.

## Cheap Add-Ons to Make Jr More Useful

If you hesitate to make a big investment in your Junior, don't overlook the moderately priced items from the PC Enterprises catalog that also help make using Junior easier and more fun to use:

jrROM Clock	\$39.95
V-20 Chip (speed-up)	\$16.95
Thin-Font Module	\$19.95
ComSwap Board	\$9.95
Numeric Keypad	\$9.95
Compatibility Cartridge	\$39.95



## Jr Newsletter Changes

*(Continued from page 1)*

juniors quite capable of doing what they need and want a computer to do. As we mentioned, our number of subscribers IS shrinking, but it is happening SLOWLY, thanks to jr users who still love their little computers. (Come to think of it, "little" is definitely not the word for fully expanded jrs these days.)

The key word is "slowly." If we were losing subscribers quickly, we would have been out of business long ago. But because many of you are holding on to your juniors and find valuable information in jr Newsletter each month, we believe we can keep going for quite a while if we play our cards right.

So how, we asked, can we continue to serve you faithful junior users without going bankrupt? Our first idea was to cut back on the number of pages, cut the newsletter down to half. This would have saved some printing costs, but would not leave us much room for news and information, plus our software store listings, which we need to include in every issue in order to avoid printing and sending separate catalogues (which we can't afford to do anymore.) We explored the idea of sending the newsletter to you on disk, which would also save printing, but would cost more for mailing, so that was no go.

The solution we found is to simply cut down the number of issues we publish each year. If we publish every other month instead of every

month, we'll save on both printing and mailing costs. And we'll be able to continue providing you with a top quality newsletter for much longer.

So that's our plan. Beginning in 1993 we will start publishing on a bimonthly schedule. The first bimonthly issue will be the January-February issue. We know this may be disappointing, but we hope you'll agree, it's the best we can do considering the alternatives.

## SHARE-Tax

*(Continued from  
page 1)*

effect of changes

on your tax due.

Each return is automatically saved in a separate file, and a sample return is included to get you off to a fast start.

The program prints IRS - a pproved high-quality graphic Form 1040 on LaserJets, DeskJets, IBM ProPrinters and Epson FX and LQ. Printers. It also prints IRS-approved substitute forms for all other forms on any printer. including Sched. A, B, C, D, E, EIC, F, R, SE, 2106, 2119, 2210, 2441, 3903, 4137, 4562, 6251, 8606, 8615, and various worksheets.

Jr Newsletter will begin shipping the disks as soon as the IRS approves its final forms in December. Order now and we will ship as soon as the final version is available.

SHARE-Tax is disk #148 in the Software Store, on pages 30-31 of this issue.



... *PCjr CLASSIFIEDS* ...

**PCjr - 256K**, Microsoft mouse, parallel printer adapter, color monitor, improved keyboard, 3 joysticks (2 brand new), Basic, speedup, and keyboard buffer cartridges, serial cable, TV cable, covers, manuals, King's Quest II, Black Cauldron, Mean 18, more. No reasonable offer refused. Call Ken at (518) 399-5857.

**PCjr 736K**, PCjr Display, 5 1/4 floppy, 20 meg snapon hard drive, PCE modified board, PCE version 3.0 cartridge runs all software, 1 joystick, thin fonte, clock and date chip, parallel printer attachment, serial cable, DOS 5.0 loaded on hard drive, DOS 2.10, all manuals, keyboard, \$400. (918)437-9154 plus shipping.

**FORCED into a 386/33.** Have 2 PCjr/20 meg HD, 2 PCjr 640K, color monitors, many accessories, some unopened, too many to list. Would like to sell entire lot. Call (617) 749-1064.

**TPCjr Accessories:** Tecmar Jr Captain & Cadet to expand RAM to 640K, with parallel printer port, \$50. Legacy second disk drive, \$50. PC jr color monitor, \$50. Combo Cartridge V2.0, \$40. Hardware maintenance & service manual, \$20. 12 PC jr books, \$20. \$150 for all; shipping & packaging extra. (518) 393-1466. (11-12)

**How to Submit  
a Classified Ad**

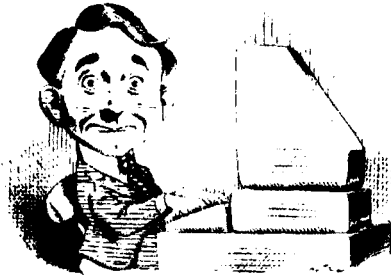
**Classified Ads are \$12 per month. Ads for items offered for \$75 or less or for swap or trade, are \$6 per month.**

**Send your typewritten ad (no more than five lines on an 8 1/2 x 11 typed page). Send to Jr Newsletter, Box 163, Southbury, CT 06488.**

**Ads received by the 10th of the month will be printed in the next month's issue.**

•••••  
**Make your jr  
More Powerful!  
(and easier to use)  
Jr POWERPACK III  
(DISK 140 in the  
Software Store)**

•••••  
**Try our newest  
collection of  
Software Especially  
for PCjrs.  
Includes the  
latest version  
of JrConfig**  
•••••



## Need Help?

The following disks from the jr Newsletter Software Store can help you to get the most out of your junior. To order, use the form on pages 30-31.

**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 V3.0.** A collection of 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, & 8/92) (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, screenblinker, 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)

**JR POWER PACK III** A disk chock-full of utilities to get the most out of the PCjr, including the latest version (4/92) of jrConfig, a program to increase disk space from 360K to 420K, a quick bootup disk for DOS 3.X, multipurpose compatibility drivers, keyboard patches, ramdrive programs, and many more useful utilities. 256K Reviewed 4/92 (Disk #140).

**PCJR COMPATIBILITY DISK V4.0.** Tips on how to run hundreds of software titles, includes PCjr compatibility info, tips on running software, and how to make some incompatible software operate. Powerful search feature finds titles quickly and easily. 128K ok. Last update April 1991. (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 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.

## DESCRIBED IN THIS ISSUE:

Educational, pages 6, 7, 8, 9.

Writing Essentials, 9, 10.

Home & Family Mgmt, 10, 13, 14.

Art & Music, 14, 15, 21.

Telecommunications, 21, 22.

Spreadsheets, 22, 23.

Especially for Jr, 23, 24

Need Help?, 27.

Buy Two Disks,  
Get One Free!

Newest  
Releases

\* **NEW \* SHARE-Tax92.** Great Shareware 1040 tax preparation software. Pprints 1040 and other IRS-approved forms. 370K free RAM & 1 floppy disk. Reviewed 12/92. (Disk #148.)

\* **NEW VERSION \* PC-Write Standard Level.** Pull-down menus, context-sensitive help, WordPerfect, ASCII conversion included. Needs 384K. Two 360K drives or one 1.2 meg or larger. Mouse optional. Reviewed 12/92. Four Disks - \$15.00 (Disk Set #7).

\* **NEW VERSION \* SKYGLOBE 3.1.** Newest version includes mouse support, runs from main executable file for faster operation. View map of heavens customized to your location, date and time. Many useful features, including find, print, zoom in and out. Reviewed 11/92 Requires 250K free for mono, 440K full color mode. (Disk #129)

\* **NEW \* PRINT PARTNER.** Shareware's answer to Print Shop. Does signs, banners, cards, calendars, etc. Requires 384K of spare RAM Reviewed 11/92 (Disk #147).

\* **NEW \* VIEWMAGE.** Picture viewer/printer for graphics in GIF/TIFF/PCX Format. It gives a fast display of even large images while needing only 180K of free memory. Works on PCjr monitor or jrs upgraded to VGA. Reviewed 10/92. (Disk # 145).

\* **NEW \* MICKEY MOUSE ALPHABET.** Walt Disney characters with an alphabet theme. Alphabet includes Goofy riding in an (A)irplane to Mickey riding a (Z)ebra. We recommend Disk #145 (ViewImage) for viewing the pictures. If you have upgraded PCjr to VGA, then use the CSHOW program provided. Reviewed 10/92. (Disk #146).

# *jr Newsletter Software Store*

## Buy Two, Get Another Free!

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 LIB. (2 disks-\$10)
- 4 TELIX V3.12 (3 disks-\$12)
- 5 PC-WRITE LITE (2 disks-\$10)
- 6 PRESIDENTS IN PCX (2 Disks-\$10)
- 7 PC-WRITE SL (4 disks-\$15)

### # 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
- 73 BAKER'S DOZEN
- 74 MIND READER
- 75 RAMDISK MASTER
- 76 PC-STYLE
- 77 COMPUTER TEACHER
- 78 PLAYER'S CHOICE
- 79 MEAN 18 GOLF COURSES-1
- 80 MEAN 18 GOLF COURSES-2
- 81 SCOUT
- 82 SPELLING BEE
- 83 FILE EXPRESS, DISK 1
- 84 FILE EXPRESS, DISK 2
- 85 BIBLE QUIZ
- 86 JRTELE V2.1
- 87 WORD CRAZE
- 88 HAPPY GAMES
- 89 STAY ALIVE !!!
- 90 SPEED READ
- 91 THE BEST OF JR NEWSLETTER III



Circle your disk choices,  
Tear out page for order!



# Software Store (Page 2)

(Listing begins on previous page)

- |                                  |                                 |
|----------------------------------|---------------------------------|
| 92 STUDY AIDS                    | 121 RESUME SHOP                 |
| 93 TYPEWRITER                    | 122 ASIC BASIC COMPILER         |
| 94 SHARESPELL V2.2               | 123 AUTOMENU V4.7               |
| 95 WIZQUIZ                       | 124 WILLS                       |
| 96 EDNA'S COOKBOOK               | 125 WORD GALLERY                |
| 97 MR LABEL                      | 126 MATH & LOGIC                |
| 98 TOMMY'S TRIVIA                | 127 POWERBATCH                  |
| 99 PCJR AUTOSETUP                | 128 LHA ARCHIVE                 |
| 100 WAR ON THE SEA               | 129 SKYGLOBE                    |
| 101 GAMES III                    | 130 BEST OF JR NEWSLETTER #V    |
| 102 4DOS V2.21                   | 131 BRIDGE PLUS                 |
| 103 TEXT UTILITIES               | 132 SIDE WRITER                 |
| 104 PKZIP V.1.02                 | 133 DISK CAT                    |
| 105 THE WORLD V.2.6              | 134 BITE BY BYTE                |
| 106 GAMES IV                     | 135 MEMSIM                      |
| 107 AS-EASY-AS V.4.00 (384K)     | 136 PIVOT!                      |
| 108 PROCOMM PLUS TEST DRIVE 256K | 137 FIRST AID TUTORIAL          |
| 109 FAMILY TREE                  | 138 CAPSWORD                    |
| 110 JR TOOLKIT                   | 139 USAMAP                      |
| 111 PRINT IT!                    | 140 JR POWER PACK III           |
| 112 LZEXE                        | 141 PICTURE THIS                |
| 113 SCRABBLE                     | 142 BEST OF JR NEWSLETTER #VI   |
| 114 SPEECH                       | 143 BASEBALL STATS              |
| 115 CALENDAR V4.0                | 144 NORTHCAD-3D                 |
| 116 DUOTRIS                      | 145 VIEWIMAGE                   |
| 117 READY FOR CALCULUS?          | 146 MICKEY MOUSE ALPHABET (GIF) |
| 118 BEST OF JR NEWSLETTER #IV    | 147 PRINT PARTNER               |
| 119 PCJR MUSIC SAMPLER           | 148 SHARE-TAX 92                |
| 120 SAVE THE PLANET              |                                 |

## *jr Software EASY ORDER! Form*



\_\_\_\_\_ disks @5.95 each = \$ \_\_\_\_\_  
\_\_\_\_\_ disk sets = \$ \_\_\_\_\_  
Shipping & Handling = \$ 3.00  
Add 6% sales tax in CT \$ \_\_\_\_\_  
TOTAL \$ \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Prices are U.S. funds.

Make check Payable to jr Newsletter.

Send to: jr Newsletter, Box 163, Southbury, CT 06488

All Orders Sent First Class Mail

## **IBM Battles Clones With "Family" Computer**

IBM is fighting back against the clone makers who have chomped huge bites out of their PC market for years. It has decided, in effect to make a new PCjr.

After abandoning the jr in 1986, IBM essentially turned its back on budget oriented families and made only top of the line computers, priced far above most people's reach. The company thus conceded the low priced computer market to clone makers and other companies who could produce budget-priced machines.

Way back in 1984, when the dollar was worth a lot more than it is now, PCjrs had a ticket price of \$1,269. IBM's new junior, pointedly

named "PS/ValuePoint" will sell for about \$1,300. Of course the new junior will have more muscle than its old brothers had. The new machines will be built around a 25 megahertz 386 cpu chip (486DX chips for some models) and will have as much as eight megabytes of system memory. That's 8,000K folks! It will also include a 120 megabyte hard disk.

IBM has a new division, called the IBM Personal Computer Company, which is responsible for the low end computers, such as the PS/1, the PS/2 and the new ValuePoint. This is a leaner and meaner Big Blue jumping back into the fight for the family computing dollar.

### **Jr Power Pack III**

**Adds Power and Compatibility to PCjr  
New version of JRCONFIG -- best PCjr set-up!**

**Add 34% more storage space to your floppy disks**

**Set up speedy RAM disks easily  
Shorten boot-up time for DOS 3x  
Run DOS 5.0 on your Junior**

**Fix problems with many versions of BASIC.  
All this & MORE on the Brand new  
JR POWERPACK III - Disk #140**

## SUBSCRIBE NOW

to **jr Newsletter**

1 year, only \$29

2 years, only \$49



**jr Newsletter**  
**P.O. Box 163**  
**Southbury, CT 06488**

Bulk Rate  
U.S. Postage  
PAID  
Permit No. 31  
Southbury, CT  
06488

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Satisfaction guaranteed or your money back for all unmailed issues. All prices U.S. funds. Add \$8/yr. for delivery to Canada.

*(Connecticut residents add 6% sales tax)*

Send order with payment to:

**jr Newsletter**  
**Box 163**  
**Southbury, CT 06488**