

The Junior Report



September 15, 1987 Volume 3 Number 9

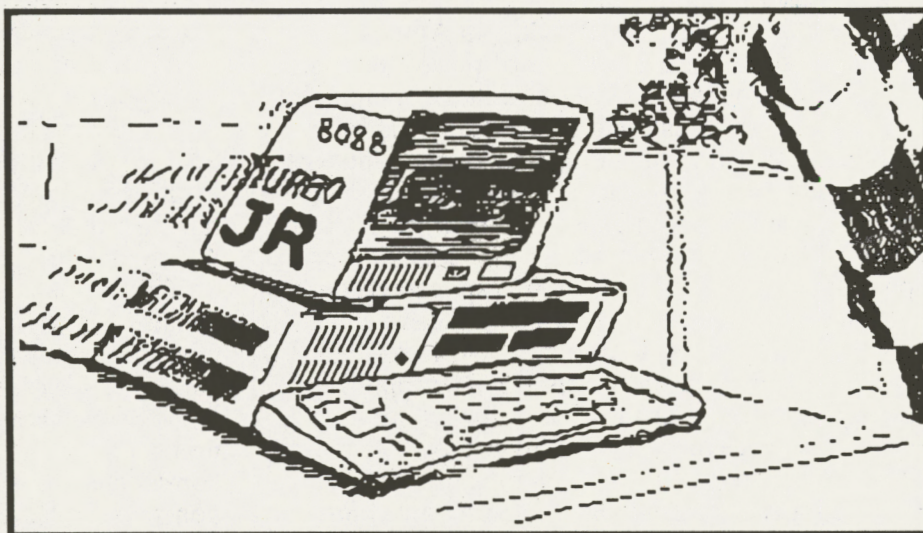
The National Newsletter for PCjr Owners

The Prototypes Have Been Completed, and the Manufacturer Is Excited

TURBO BOARDS FOR THE PCjr!

Does your PCjr ever feel like a Chevette in a turbo-charged Ferrari world? Well, if everything goes right, your Junior may need that crash helmet after all if Paul Rau has his way. Paul Rau Consulting in Galt, California has come up with a new PCjr product called the *Nickel Express Jr* which may be the first turbo board for the PCjr. And the best part is that it fits **INSIDE** your PCjr.

The PCjr normally has a clock speed of 4.77 Mhz, fast enough for most Junior owners, but aggravatingly slow for those



PCjr owners that like their applications and computations moving at a faster clip. The Nickel Express Jr will allow your PCjr to run at 4.77 Mhz, 6.66 Mhz, 7.37 Mhz, or at its fastest speed, 8 Mhz, or nearly twice the speed of a normal

PCjr. The turbo board utilizes a V-20-8 chip, and the speed is controlled by the software that is included with the board.

As with the other "hot" item,

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Diskette Drive Maintenance on the PCjr

As many of you already know, the mechanical parts of your PCjr are much more apt to breakdown than those that are electronic. And no where in your entire system is the mechanical bumping and grinding more evident than in your PCjr disk drive. In this article Tim Hallen introduces us to the basics of disk drive maintenance that will probably save you both the aggravation and money involved with disk drive repairs.

You may have not noticed a change, but many times the diskette drive on your PCjr (as well as most other personal computers) will tend to become noisy with extended use. Even new, some PCjr disk drives were very noisy. This article describes how to reduce this noise, and at the same time, prolong the life of the Junior disk drive itself.

The reason the diskette drive

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Editor's Notes: We're sorry about the delay in getting this issue to you, but we wanted to get some DOS 2.1 Patch corrections to you right away. Also we're not perfectly geared to producing our current 28 pages per issue, but by next month, our timing will be down and you all should be getting your Reports by the 15th of the month as usual.....in the current issue (October) of *PC Resource*, a relatively new computer magazine devoted to PC clones which by virtue of definition should include the PCjr, there is an article on the 19 best BBS's in America. Now since there are thousands of these electronic bulletin boards in the U.S. of A., to be mentioned among this group is quite an honor. What interests us is that one of them, **Downeast Roots**, a bulletin board run by David Jones (no relation to the Monkee), is being conducted on a PCjr! This BBS is dedicated to the interests of amateur and professional genealogists, and is sponsored by the National Genealogical Society. There is among other things, a large message area filled with research tips, and Lotus 1-2-3 templates for pedigree charts. For those of you who are interested, these are the details: Phone: 1-603-964-7912, Location: Rye, New Hampshire, Sysop: David Jones, Fees: None, BBS software: Fido BBS, Parameters: 300/1200 baud, 8-bit words, 1 stop bit, no parity, and Hours: Open 24 hours. We'll try to find out more of David's PCjr setup in the coming weeks.....we just had one of our keyboards returned from the local computer repair shop. We had been lax in covering much of our equipment and evidently enough dust and crud had gotten into the keyboard that it didn't function

properly, even after we took it apart to "clean" it out ourselves. All PCjr owners would be very, very wise to cover not just the CPU and monitors, but the keyboards as well. The covers are the best investment for every owner, since those evil, **Commie dust particles** are the worst enemy of any computer system. Though the Joseph McCarthy Memorial PCjr Dust Cover happens to be our personal favorite, any dust cover will do. Oh yes, the bill for "fixing" the keyboard? \$76.00.....the competition for the world-renown Guggenheim Art Collection Contest is really heating up, so we're going to throw in another goodie - a new IBM PCjr speech attachment to go along with the brand new, pre-owned, beautiful **Gold Rolls Royce!!** (Matchbox series 23456) as the grand prize.....okay, quick quiz - what is our PCjr dictum on software purchases? Is it A) Buy anything that says PCjr compatible on it, or B) Don't buy, just copy using your good friend's PC copy board, or C) Try to justify entertainment software on your company's expense account, or D) **Never eat yellow snow**, or E) None of the above. You have thirty seconds - time's up. If you guessed E) you're correct. The correct answer is NEVER buy software that is non-returnable. Egghead Software has become a favorite with us because of the mail order-like prices and their outstanding return policies. Now there are stores in Washington, D.C., Philadelphia, Boston, and soon to be in New York. Officials of the company have stated that they want to dominate the Northeastern United States as they

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Editor's Notes.....

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have in the far West and the Midwest.....we received a very nice letter the other day from Mr. John M. King, President of the **San Francisco PCjr Users Group**, one of the best PCjr user groups in America. Here's what John has to say about his group, "the San Francisco Users Group currently has about 90 members. We meet monthly and usually have 25 to 30 members attend. Membership has been fairly constant over the last two years with new owners replacing folks who have dropped out. Members range from people brand new to computing to professionals in the field who are still enjoying their PCjr. We take particular satisfaction in getting folks off to a friendly start in using a new tool whether it's just for fun, for education, or as an addition to their career." Sounds like a very thoughtful and interesting group. Any PCjr owner in Northern California is encouraged to contact John at 1194 Idylberry Road, San Rafael, California 94903 for membership information. John also has been successful with running 736K of RAM on his PCjr, utilizing a Tecmar jrWave. Hopefully John will have the time to write a little description of his PCjr setup and the software that he is using.....remember IBM's **Writing to Read** program? It was the program specifically designed with the PCjr in mind that sparked a whole new way of pre-school learning. Though people haven't given the program much attention since the PCjr's demise, the program still reaches about 300,000 children a year, or about one-tenth of those entering school. Though the Junior was certainly not a success in marketing terms, the Writing to Read program has received much acclaim by the educational field. The best part is that the program, which requires the IBM PCjr speech attachment, is beginning to show up in software stores at greatly reduced prices (in one store in Chicago it was down to \$50. from its original \$300. sale price).....we have added the **Microsoft PCjr memory expansion board** as one of the boards we can upgrade to use the 256K chips to give your Junior a total of 640K of computing muscle. If you have a 128K Microsoft board and are interested, see page 13 for

more details.....some of us were fortunate enough to be in Orlando, Florida visiting Walt Disney World's EPCOT Center recently, and I was amazed at how wonderful the sights and sounds have remained. I don't think I'll ever tire of the place. This time our trip was made more enjoyable by a personal tour given to us by Disney President and CEO Donald Eisner (we're lying) who really amazed us when he informed us that fully 37% of all of the wonderful robotics in both EPCOT and The Magic Kingdom were controlled by basic 128K PCjr's! **We're really lying**.....if you're one of the many thousands of PCjr owners who bought that **PCjr thermal printer** at a discount, we have good news for you. You probably know that the specially-treated paper is hard to find, but to make it worst, it's usually pretty expensive. Computer Showroom, a warehouse style mail order company in Barrington, Illinois, has the special paper in mass quantities with prices ranging from \$5.95 for two rolls to \$12.95 for a box of 500 sheets. Their address is 22292 N. Pepper Road, Barrington, IL 60010.....finally, in the How Stupid Can You Really Get Department, we give you an update on the "**Little Buddy**" story that we featured in our December 1986 issue. For those of you that do not remember, Buddy was the little boy in Scotland, dying of cancer, whose only dying wish was to receive the most postcards ever to break a Guinness Book of Records mark. Of course our crack team of researchers felt that this was legit and we didn't just send postcards, but we printed the article. Well, one of our readers, Alexander Ball of Ontario, sent us an article from his local paper exposing the story as a wild hoax, and quite frankly, we're embarrassed to have been so gullible. It was so convincing that tons and tons of post cards were pouring into this tiny post office in Scotland. With egg all over my face, Little Buddy certainly wasn't my little buddy. That's the last time we'll fall for that kind of stuff. We make mistakes once and once only. Well, anyway, did you know that a rat was found in a Coke bottle? Really.

LETTERS

I'd like to share a couple of my recent experiences with other Junior Report readers. I've got a Racore Drive II with DMA and 640K of Racore memory, Tiac 8087 coprocessor from Legacy, Keytronics 5151 keyboard, internal modem, and Microsoft mouse. I've always run the Racore sidecar in the PCjr mode because it behaves in the normal and the compatible configurations. In the enhanced configuration or in the PC mode, I've experienced unexpected crashes too frequently. The DMA feature has not been useful to me. Also, the Tiac 8087 seems to have disabled the Racore PC mode, (will not boot in the PC position), but that's not much of a loss. I run Lotus 1-2-3 version 2.01, and the 8087 speeds up the recalculations only modestly, maybe by 20%. Now that the Racore Drive II and I understand each other, we get along fine.

I program only for recreation. I bought QuickBASIC 2.0 last year. It runs very well on my system, and is a nice upgrade to interpreted BASIC. I recently bought the Microsoft update to QuickBASIC 3.0. The QB 3.0 editor does not work on my Junior. (Menu selections cannot be made from the keyboard, and each keystroke gets double entered.) I wrote to Microsoft (about an hour ago), but I don't have high hopes. If any other Junior Report readers have solved QuickBASIC 3.0, I hope you'll share the secret with us.

The June Junior Report says that Borland's new Turbo BASIC won't run on the Junior. I don't know about that, but I've got a suggestion. I recently bought Borland's Turbo C so that I could start learning that language. You can imagine my disappointment when all it did was lock up my Junior when I tried to load TC.EXE. Like many Junior owners, I've got a few tricks. The one that worked on Turbo C was the P.C.I.D. cartridge from Racore. Try that on your BASIC!

Harry Daykin
Jackson, MI

Dear Harry,

Alas, the PCID cartridge with a Racore unit will still not be able to run Borland's Turbo BASIC, but thanks for the tip on Turbo C. Your experiences support the PCjr axiom - fit the hardware

to the application. You have certain applications like Lotus and various programming languages and you're adjusting your PCjr system to fit your needs. The PCjr doesn't have to run all programs to be effective or productive, just the ones that you are are interested in.

The official Microsoft response to the apparent PCjr incompatibility can be summed up in two words - "tough luck". They recommend using the earlier version. The only way to put pressure on Microsoft to recognize the needs of the 500,000 PCjr owners is for each to write to the company personally about this very unfair situation. They should get the message.

Whether Microsoft will come to its senses or not, several readers have come up with this solution for the QuickBASIC 3.0 incompatibility problem - pick up a copy of Borland's Superkey program. QuickBASIC will run on the PCjr if Superkey is loaded first. Thanks to all of the readers who have submitted that valuable tip. Also we are investigating a rumor that there are two fixes for Turbo BASIC and QuickBASIC that can be found on some electronic bulletin boards. We'll find out for sure by the next issue.

I would like to start off this letter by saying how much I enjoy your newsletter. It was a welcome sight when my first issue of the Junior Report arrived.

I would really appreciate any information you could give me on the Copy II PC options board. I have ruined a few disks in my time, and I would really like to buy a copy board for my PCjr so that I can back-up my protected disks, but from what I understand, it will not fit into any of the slots inside the Junior. I would like to know if this is true or if Central Point Software has any plans to market a specific board designed for the PCjr, or if there is a way to modify the existing board to fit into the slots.

I have recently purchased the Racore Drive II Plus with DMA and a 512K memory board which I have not yet received. Would this ex-

(Continued on next page)

Letters.....

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pansion chassis create a new slot that would house the copy board?

Greg Belanger
Calgary, Alberta

Dear Greg,

The Copy II PC Options Board will not fit into a PCjr system regardless of the configuration. It's a shame because the board works quite well, and claims to be able to copy any copy-protected program, provided the program doesn't use a protect scheme that physically alters the disk medium. However, Central Point Software still produces the software program Copy II PC that will backup many important copy-protected programs and best of all will work on a 256K or better PCjr. The registered owners of the program receive periodically upgrades that will enable the PCjr owner to back up newer programs or programs that were previously "un-backable." Fortunately many of the major corporations have dropped their protection schemes (like Microsoft), so investing in these programs will become less risky. Entertainment programs still maintain their protected schemes for the most part, but they, at times, will offer a very inexpensive backup copy if your original should become damaged. It's not the best situation, but something is better than nothing.

I am a complete newcomer to computing and consider myself more than the fortunate to have discovered The Junior Report. You are quite correct in that each issue is the perfect length for reading and absorbing in one sitting.

Every new owner of the Junior wishes to upgrade and my decision, to date, is to order from PC Enterprises their Junior sidecar containing 512K, clock/calendar, and parallel port for \$295. However, before sending my money, I would appreciate any comments you might have regarding this company and its products. As far as I know, you have not mentioned them previously.

I find the DOS manual very difficult to understand. The wording and examples seem too cryptic for me. Is there a disk or book you recommend for us poor, simple souls?

Howard Naylor
Clearbrook, BC

Dear Howard,

Thank you for your kind statements. I think your "one sitting" quote came from the November 1986 issue of the Junior Report in which we replied to a reader who complained that the then 20 page length of an issue didn't seem quite long enough. We mentioned basically that the 20 page length was scientifically determined by our crack team of researchers to be the correct length for those who like to take their Junior Reports into the "library" to read, hence the now-famous quote "one sitting - one reading." Now we're certainly happy you're enjoying The Report, but now we're at 28 pages and still growing, and if you're still following that one sitting rule, well, maybe you should see a doctor.

We have mentioned PC Enterprises before, and that was in our Readers' Survey # 3 in which certain PC Enterprises products, specifically their second drives and keyboards, were mentioned. These products did not particularly receive any special praise, nor were there any complaints either. Unlike with many of the advertisers in our newsletter, we have not had enough contact or verbal communication with them to draw any conclusion, except that we have received no complaints thus far. We would have to say you would be fairly safe in ordering from them.

DOS is like a foreign language in that once you have a basic understanding of the phrases and terminology, your life, in this case your computer life and productivity, is immensely improved. The problem is learning that new language. The DOS book that we highly recommend is, of course, Peter Norton's PC-DOS - Introduction to High-Performance Computing published by Prentice Hall Books and is readily available at most book stores for \$18.95, well worth the price. This book gives special emphasis to the novice, yet remains fairly comprehensive. As far as software is concerned, we have in our Public Domain - Shareware department this month the program HelpDOS, a great program to lead you by the hand through the treacherous waters of PC-DOS learning.

I received my first issue of the Junior Re-

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DOS 2.1 PATCH

Below is a reprint of an article by Jack Spitznagel of The Boston Computer Society describing the DOS 2.1 Patch that solves many of the PCjr incompatibility problems. Many of you have written to us describing the great success of this patch in some of your applications, while others have had some problems with implementing the codes to the right. We have made some changes to the program that should allow every user to utilize this life saver, so try to type it in again, and you should have the patch in place very quickly. The new corrections from the previous article are in bold type.

We had previously hoped to offer the DOS 2.1 patch on diskette in our Public Domain library, but the legal department said that Microsoft would be very displeased if we did, since it would be like giving away DOS which is a definite no-no.

As stated before, please perform the following procedure on a copy of your DOS, and not on your Master DOS diskette. Good luck, though you shouldn't need it this time.

If I needed a personal productivity setup for my home today, I would still buy a PCjr, as much memory as I could add to it, and a copy of the Program I needed.

Why? Because with only a slight modification to the IBMDOS.COM file, you can run large, memory-intensive programs like *Symphony*, the program I am currently running on my PCjr. It runs well on my PCjr, and it saves having to buy several programs of moderate expense to do all the same tasks, not to mention the time it takes to learn unfamiliar software.

Modification to IBMDOS.COM

I was mystified at first by the apparent inability of the PCjr to run *Symphony*. I had my PCjr setup with 640KB of RAM on a multifunction card, and there was no logical reason for the random problems I was experiencing. The program seemed to lockup periodically during COPY, MOVE, and ERASE command procedures.

I had almost given up hope when I noticed an article by Don Awalt in the November, 1984 *PC Tech*

```
A>DEBUG
-L 100 0 5 1
-D 12B L4
XXXX:012B 27 00 00 00
-E 12B
XXXX:012B 27.20
-W 100 0 5 1
-Q
```

```
A>DEBUG IBMDOS.COM
-U3AC L A
XXXX:03AC CS:
XXXX:03AD MOV SP, [02A6]
XXXX:03B1 CS:
XXXX:03B2 MOV SS, [02A8]
-A3AC
XXXX:03AC CS:MOV SS, [02A8]
XXXX:03B1 CS:MOV SP, [02A6]
XXXX:03B6 [ENTER]
-UCD1 L A
XXXX:0CD1 CS:
XXXX:0CD2 MOV SP, [02D1]
XXXX:0CD6 CS:
XXXX:0CD7 MOV SS, [02D3]
-ACD1
XXXX:0CD1 CS:MOV SS, [02D3]
XXXX:0CD6 CS:MOV SP, [02D1]
XXXX:0CDB [ENTER]
-U1522 L A
XXXX:1522 SS:
XXXX:1523 MOV SP, [02D1]
XXXX:1527 SS:
XXXX:1528 MOV SS, [02D3]
-A 1522
XXXX:1522 CS:MOV SS, [02D3]
XXXX:1527 CS:MOV SP, [02D1]
```

(Continued on the next page)

DOS 2.1 Patch.....

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```

XXXX:152C [ENTER]
-U311D L 8
XXXX:311D MOV SP, [02D1]
XXXX:3121 MOV SS, [02D3]
-A311D
XXXX:311D MOV SS, [02D3]
XXXX:D121 MOV SP, [02D1]
XXXX:3125 [ENTER]
-U325F L 4
XXXX:325F MOV SP, ES
XXXX:3261 MOV SS, SP
-A325F
XXXX:325F MOV BP, ES
XXXX:3261 MOV SS, SP
XXXX:3263 [ENTER]
-U409B L 7
XXXX:409B MOV SP, 4235
XXXX:409E MOV AX, CS
XXXX:40A0 MOV SS, AX
-A409B
XXXX:409B MOV AX, CS
XXXX:409D MOV SS, AX
XXXX:40A2 MOV SP, 4235
XXXX:40A5 [ENTER]
-W
WRITING 4280 BYTES
-Q

A>DEBUG
-L 100 0 5 1
-D 12B L 4
XXXX:012B 20 00 00 00
-E 12B
XXXX:012B 20.27
-W 100 0 5 1
-Q

```

Journal. I realized that the IBM-supplied patch reproduced there in that article would cure the problem I was having.

Unlike other PCs, the PCjr uses the non-maskable interrupt (NMI) to check its keyboard for input. Apparently, IBMDOS.COM (one of the two hidden disk operating files) does not properly restore the segment register and stack pointer after encountering a non-maskable interrupt. The problem often causes the PCjr keyboard to lock, and the PCjr must be restarted to recover from the lockup. By using DEBUG to modify the IBM.DOS.COM file as shown in figure 1, you can the problem.

The following procedure assumes that a DISK-COPY of the DOS 2.10 system diskette is in drive A:. Enter the commands shown below, and the computer will automatically prompt you. If this is to work reliably, you must first enter the DEBUG corrections, then transfer the modified operating system files to your other system diskettes using the SYS command.

Note: The segment of code marked XXXX:409B may show some variation from the addresses shown after the first one (XXXX:409B). I experienced this and the result was just fine.

Save this diskette and use it to format all disks in the future. You can also use it with the SYS command to transfer the modified system files to your other system diskettes.

Symphony runs well with my configuration, but it also works well using the IBM memory boards with at least 512KB of memory. Be sure to use the technique described in the notes on the enhancement disk. In brief, you will have to create a CONFIG.SYS file with the following line or add the following line to your existing CONFIG.SYS file:

DEVICE=PCJRMEM.COM

Then add the appropriate commands to your AUTOEXEC.BAT file to have your program load and execute properly.

Be sure your program diskette contains all of the files your BATch file executes. Also, if you use a PC AT to set this up, *do not use the high-capacity drive*. The Jr may not properly read disks written with them.

HOW TO BECOME RICH AND FAMOUS WRITING FOR THE JUNIOR REPORT, OR ONE OUT OF TWO AIN'T BAD

The Junior Report is accepting articles and reviews from readers and subscribers for possible publication in our national newsletter. All articles should be submitted in pure ASCII text on diskette, accompanied by a printed copy. Hard copy-only submissions will still be considered for publication, but their inclusion in the newsletter may be delayed at the discretion of the editorial staff, or in other words, we may be too lazy to type out your article. Frequent authors may receive software to review in the future on a regular basis.

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Setting Your Preferences on the PCjr

By Ari Feldman

Although IBM's PC-DOS is one of the most powerful Disk Operating Systems available, it lacks the capability to easily set up the Video and Keyboard preferences of your choice. Other computers support this feature so why shouldn't yours? With the following programs and batch files you will be able to choose from eight such options upon booting up your Junior. In addition to providing a set of useful utilities that work not only in the DOS environment but in almost any program as well, this article also demonstrates the ease, power, and flexibility of using batch files and 8088 Assembly language.

To begin with you will need an ASCII compatible text editor or word processor to create both the program source code and batch file. The DOS text editor EDLIN is an excellent choice for this task. Start by running EDLIN or the editor of your choice and enter the following Assembly language code for the eight programs below exactly as shown. Saving these files with logical names and an .ASM extension is considered good PC-DOS etiquette since doing this will assist you in determining which program does what. The program code can be entered in either upper or lower case. For the curious I have included remarks to help explain how these programs work, these remarks are located on the right side of the listing and are not to be typed in!

Program #1 - 40 COLUMN DISPLAY MAKER

```
A 100
MOV AX,00
MOV AH,0F
INT 10
INT 20
```

- ADDRESS OFFSET FOR A .COM FILE
- 40 COLUMN TEXT MODE (COLOR ENABLED)
- HIGH INTENSITY CHARACTER ATTRIBUTE
- BIOS VIDEO FUNCTION
- RETURN CONTROL TO DOS FUNCTION

```
R CX
10
N VID40.COM
W
Q
```

Program #2 - 80 COLUMN DISPLAY MAKER

```
A 100
MOV AX,03
MOV AH,0F
INT 10
INT 20
```

- 80 COLUMN TEXT MODE (COLOR ENABLED)

```
R CX
10
N VID80.COM
W
Q
```

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Setting Preferences.....

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Program #3 - KEYBOARD CLICK ON

```
A 100
MOV AX,401          - TURNS KEYBOARD CLICK ON
INT 16             - BIOS KEYBOARD FUNCTION
INT 20
```

```
R CX
10
N KEYCLICK.COM
W
Q
```

Program #4 - LONG DELAY BEFORE KEY REPEAT

```
A 100
MOV AX,301          - TURNS ON KEY REPEAT DELAY
INT 16
INT 20
```

```
R CX
10
N KEYDELAY.COM
W
Q
```

Program #5 - SLOW KEY REPEAT RATE

```
A 100
MOV AX,302          - SETS SLOW KEY REPEAT RATE
INT 16
INT 20
```

```
R CX
10
N SLOWREP.COM
W
Q
```

Program #6 - LONG DELAY AND SLOW KEY REPEAT

```
A 100
MOV AX,303          - SETS BOTH DELAY AND SLOW KEY REPEAT
INT 16
```

(Continued on next page)

Setting Preferences.....

(Continued from previous page)

INT 20

R CX

10

N BOTH.COM

W

Q

Program #7 - NO KEY REPEAT

A 100

MOV AX,304

- TURNS OFF KEY REPEAT

INT 16

INT 20

R CX

10

N NOREPEAT.COM

W

Q

Program #8 - RETURN TO DEFAULT KEYBOARD SETTINGS

A 100

MOV AX,400

- TURNS KEYCLICK OFF

INT 16

MOV AX,300

- RETURNS KEY REPEAT TO NORMAL

INT 16

INT 20

R CX

15

N RESETKEY.COM

W

Q

In order to make .COM files for all eight programs, each file must be assembled. This is easily done by using the ingenious method that John E. Wilson presented to us in the July issue of the Junior Report. For those who might have missed it then here it is again. Simply copy the DOS utility DEBUG.COM onto the disk which contains your source code and at the DOS A> prompt type:

(Continued on next page)

Setting Preferences.....

(Continued from previous page)
DEBUG < XXXX.ASM

Replace the X's with the filename you gave each of the eight program listings when you saved them. Make sure you have the left arrow symbol (<) pointing towards DEBUG. Once you check your typing and press the enter key, the assembly will commence. Most of the above programs will take up no more than 16 bytes of disk storage and all of them are under 22 bytes in size. After all of the programs are assembled, you may run them as you would any other DOS command by typing their respective filenames at the A>. However, doing this for each program every time you want to set your screen and keyboard preferences is cumbersome, not to mention a waste of time. Instead I have devised a much better way of setting those preferences by a menu via a special DOS batch file. Using an ASCII editor, simply type what is shown below and save this batch file with the name PREFS.BAT:

- (1) 40 COLUMN DISPLAY
- (2) 80 COLUMN DISPLAY
- (3) KEYBOARD CLICK ON
- (4) LONG DELAY BEFORE KEY REPEAT
- (5) SLOW KEY REPEAT
- (6) BOTH OPTIONS 4 & 5
- (7) NO KEY REPEAT
- (8) RESET TO KEYBOARD DEFAULTS

TYPE THE OPTION'S NUMBER AND THEN PRESS ENTER.

Once this has been done you must then create the eight additional batch files that correspond to the option numbers indicated in the PREFS.BAT file. Fortunately, these files are very short. At the DOS A> type in the following batch file. It will create a batch file that will execute the VID40.COM program (program #1). Use it as a guide for the other seven.

```
A> Copy con: 1.BAT          (hit enter)
      VID40.COM             (hit enter)
                        (press Fn 6 and hit enter)
```

You should eventually end up with the following eight batch files on your disk. Each batch file is matched up with the specific .COM file it should

contain:

- 1.BAT - VID40.COM
- 2.BAT - VID80.COM
- 3.BAT - KEYCLICK.COM
- 4.BAT - KEYDELAY.COM
- 5.BAT - SLOWREP.COM
- 6.BAT - BOTH.COM
- 7.BAT - NOREPEAT.COM
- 8.BAT - RESETKEY.COM

Finally, if you want to set your preferences every time on turning your computer on, you have to create an AUTOEXEC.BAT file similar to this one:

```
A> Copy con: AUTOEXEC.BAT (hit enter)
      CLS                  (hit enter)
      VID80.COM             (hit enter)
      TYPE PREFS.BAT        (hit enter)
                        (press Fn 6 and hit enter)
```

From this point on if you followed all of the directions provided in this article carefully and entered all of the presented information correctly, you should be able to set your preferences whenever you boot up. All of the above programs are incredibly compact. This is due to their reliance on the PCjr's BIOS (Basic Input/Output System) routines to do their dirty work. Most Assembly language programs would get quite involved if these routines weren't available. I know there is a lot of work required to get things going, but in the long run you'll probably find these programs quite useful in assisting you in your daily computing adventures. For instance, the keyboard preference programs alone can be very helpful in applications where precise and accurate keyboard control is a must, as in a graphics design program. With the powerful ability to control the repeat rate of any key on the keyboard, frustrating keyboard related errors will be greatly reduced when working with your favorite word processing, spreadsheet, and data management software. The two video display mode selector programs also possess a lot of potential and could for most intents and purposes, replace the DOS MODE command on many a PCjr owner's startup disk since these programs accomplish the same thing but take up much less disk space. For a more indepth look at DOS, EDLIN, DEBUG, and batch file look for my forthcoming series of articles on DOS and the PCjr.

Turbo Board for the PCjr.....

(Continued from page 1)

the jrHotShot memory expansion board that is internal, the Nickel Express utilizes one of the PCjr's normally soldered ROM sockets (in this case it is the Junior's clock chip) that can be found on the PCjr motherboard. Some of you have the expertise or the available technical help to unsolder a chip from the PCjr motherboard. But even for those of you that do not, Paul Rau will also remove the soldered chip and replace it with a socket at an option. We have one of our Juniors prepared for this purpose, and we expect to have a new Nickel Express Jr to review shortly.

The problem with the PCjr is that it isn't just the clock speed that makes it run slower than a PC. There are other factors such as how the PCjr handles its video display and lack of DMA that causes some of the apparent lack of speed. Whether the turbo board visibly increases the

speed that the Junior performs certain functions on standard and non-standard PCjrs hopefully will be answered when we get our hands on one. From first reports, however, the future looks promising.

The cost of the Nickel Express Jr is \$79. plus \$3. shipping and handling. To replace the soldered clock chip, you must send the motherboard and an additional \$30. For more details contact Paul Rau Consulting, 260 N. Lincoln Way, Galt CA 95632, or call 1-209-745-9284 for voice calls between 9 AM and 4 PM, and data transmission from 5 PM to 8 AM.

To get a PCjr up and running at 8 Mhz used to be just a pipe dream to many PCjr owners, but it may just be around the corner, and at a price that almost all Junior owners can afford. So put on your helmet and fasten your seat belt 'cause your Junior is taking off.

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If you want to be the first kid on your block to have 256K chips in your IBM, Tecmar, or Microsoft expansion board, this one's for you. After replacing the 64K chips originally soldered in your JrCaptain or IBM expansion sidecar, adding new sockets, and inserting 256K chips, you will effectively have 640K of RAM in your PCjr to play with. All work will be done by qualified technicians headed by Brian Cook. What we want you to do, is to fill out the form below to let us know if you're interested. Once we have your form on file, you will be notified by phone or mail when we would like for you to ship your board to us for prompt work, hopefully within three weeks time. The cost of mailing the board to us and insuring it will be your responsibility, and the cost and care of returning your upgraded board to you via UPS in a safe manner will be ours. We want you Tecmar owners to send your power supply along as well, so that we can test the board with your own power supply before we do anything to it. The cost of this service will be \$145.00 (U.S. Currency). If you should have any questions concerning this service, please let us know on your form. We will guarantee the work and the 256K chips for 90 days.

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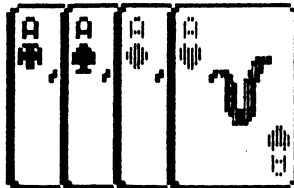
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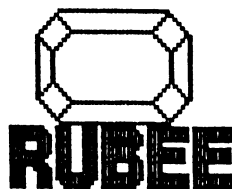
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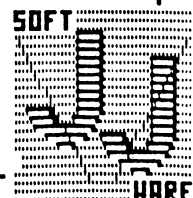
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DIE PER ADD, BALL FALL, and POT SHOT are all original games.

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Diskette Drive Maintenance.....

(Continued from page 1)

becomes more noisy with use is that the lubrication becomes depleted on the head rails, thus causing more friction, which in turn produces that awful grinding sound that you may hear. To add insult upon injury, this also increases the wear on the plastic head support carriage. The following is a step by step method of lubricating these head rails. Read through them carefully before starting out:

Step 1. Disconnect the cables from the back of your Junior. This is essential, because you should not work inside the case with the power connected, in case it would accidentally become powered-on. The voltage inside the case is not especially high, but if you were to drop a metal object inside the case, there is a real possibility that a short could occur, and necessitate a unexpected trip to the repair shop. Also, the connectors on the system board (planar board) have been known to break if excessive pressure is used on a connector. Better safe than sorry.

Step 2. With all of the accessory cables removed, use a wide-bladed screwdriver to gently pry the top cover off the case in three places (see figure 1 pointer A). Set the case top aside. Removing the top reveals the inner workings of the PCjr. The diskette drive unit is on the right hand side, when facing the front of the case. Remove any diskette that may be in the drive. You will see the head support carriage (see figure 2 pointer B). It is what holds the heads in alignment in

relation to the diskette tracks and allows the heads to move from track to track, looking for your data and programs.

Step 3. Look carefully at the head support carriage. To either side of it you will see a shiny, round rail that goes through bushings on the head support carriage. These two rails are what you will be applying lubricant to. Using a good quality lubricant (I recommend TRI-FLOW, as it is a teflon-based lubricant, has good staying power, and it is readily available at most hardware stores or most sewing machine shops) and a cotton tipped swab, apply a little of the lubricant to the swab. Be careful not to overdue it. CAREFULLY push the head carriage fully to its rear stop (toward the back of the system unit). Apply the lubricant to the rails sparingly. Concentrate on the areas where the rails go through the bushings on the head carriage (see figure 2 pointer C).

Step 4. CAREFULLY move the head carriage fully in the other direction (toward the front of the system case). Apply lubricant to the place toward the rear where the head carriage rested in Step 3, to fully lubricate the entire contact surface of each rail. GENTLY move the head carriage back and forth to spread the lubricant evenly. If you find out that there is an excess of lubricant, remove it with another swab. You have now lubricated the rails.

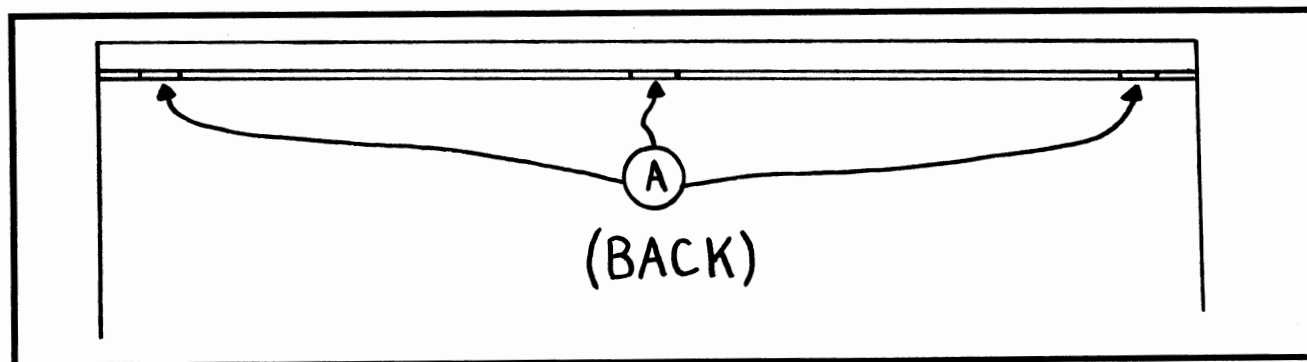


Figure 1.

(Continued on next page)

Also Another Precision Driver with
micro teflon particles (Pack # 64-2301)
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Disk Drive Maintenance.....

(Continued from previous page)

Step 5. Since you have the cover off, you can clean the read/write heads as well. For this process, you will need another clean swab, and some commercial head cleaner, such as that supplied with an audio cassette cleaner kit, or with a video cassette cleaner kit.

Apply a little of the cleaner fluid to the swab. Again, be gentle with the heads, as they are supported by thin metal stampings, and are carefully aligned. If you do not feel comfortable with this procedure, stop now and go on to the next step. Lift up the support for the upper head no more than a 1/4 inch to avoid stressing the head support (see figure 2 - pointer D).

GENTLY rub the swab lightly across the upper and lower heads, in a side-to-side motion (in the direction that the diskette surface moves across the heads). After you have completed this procedure, you can go to the next step. Most commercial cleaners dry quickly. However, you are advised to wait a few minutes for the cleaner to dry before continuing. Take a look at the swab - you may find that it has a rust brown color residue on it. If so, this is an indication that the heads were in need of a thorough cleaning. This coloration is from the normal wear of the diskette surface over the heads.

Step 6. Make a check inside the case to be sure you have not left a swab or anything else inside. Place the forward lip of the top cover under the tab on the front of the case, and place the top cover on the case. Gently press the rear of the cover onto the case. There are three tabs that must align with the slots in the case - if you have trouble fitting the cover, do not force it. Remove the top cover again and retry this step.

Step 7. Re-attach the cables into the back of your PCjr, referring to the set-up manual that came with your Junior or peripheral if necessary. Place your "boot" diskette in the drive, and turn on the power. As the diskette spins, listen to the sounds it now makes. They should be much quieter and easier to live with.

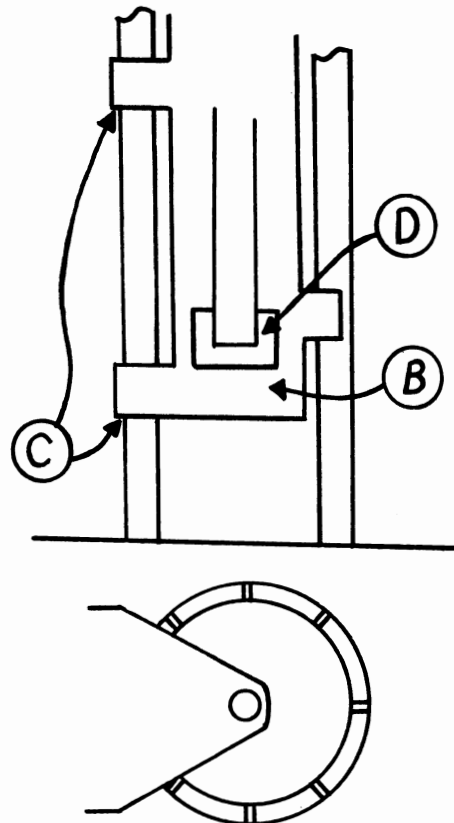


Figure 2.

Each time you boot-up your Junior, you will hear that your work has accomplished two things - you have prolonged the life of your diskette drive, and reduced the annoying sounds the diskette drive used to make. You should continue to listen whenever you boot up. If you hear that the drive is beginning to make the same noises as before, it may be time to follow the procedure again.

By following the above procedures, you will be prolonging the life of your diskette drive, and providing a more pleasant environment in which to work. With the spirally costs of computer repair these days (IBM charges \$115. an hour), it always pays for the PCjr owner to perform some preventive maintenance of his or her machine in hopes of avoiding some of the costly repairs that may befall the Junior owner.

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BASIC and The PCjr

By John Bongiovanni

This month we are featuring an article from the August issue of Elkhart PC Users Group Newsletter. Though not a PCjr-specific group, this users group has a very good PCjr SIG (special interest group), and the editor of the finely-written newsletter happens to be one of the PCjr owners, so you know that the Junior won't be neglected in this club. The Club meets monthly on the third Thursday of the month at 7:00 PM at the Elkhart Public Library. For more information, please contact Curt Cooper, Elkhart PC Users Group, c/o Computerland, 111 A Easy Shopping PLace, Elkhart, IN 46514.

BASIC on the PCjr is full of all sorts of idiosyncrasies that depend on whether or not you have cartridge BASIC and what version it is, whether you have memory expansion (and if you do, whether its software takes into account the bug in cartridge BASIC when determining memory size), and whether or not you have renamed and patched the BASIC.COM and BASICA.COM files that come on the DOS disk.

First, there's the difference between cassette, disk, and cartridge BASIC. Cassette BASIC is what you boot into if you don't have a disk drive or a BASIC cartridge in your system. It sits on a ROM chip inside the system unit, so you always have it. Disk BASIC consists of the files BASIC.COM and BASICA.COM that you get with the DOS operating system. ON the PCjr, disk BASIC requires both cassette and cartridge BASIC to be on the system in order to run. However an easy patch will allow you to run disk BASIC without a cartridge. You still need the cassette BASIC in ROM, though, which is why you can only run IBM disk BASIC on an IBM machine. Other forms of BASIC, like Compaq and GW-BASIC, have all of BASIC in a disk file instead of some on ROM.

Cartridge BASIC is the way IBM meant BASIC to be run on the jr. First, the commands BASIC or BASICA are intercepted by the cartridge if it is present on your system, which is why you have to rename the disk BASICs if you want to use them with the cartridge installed. Second,

when unpatched disk BASIC makes use of cassette BASIC, cassette BASIC makes sure the cartridge is present, otherwise it says "cartridge required" and halts the system. Why they went to all of this trouble I'll never know, especially considering the big, bad bug in cartridge BASIC. Superficially, disk BASIC looks as if it is supposed to be a subset of cartridge BASIC, while cassette BASIC should be a subset of disk BASIC. This isn't quite true.

Let's discuss the problems with Junior BASIC and how to solve them. First, there's the no disk, no cartridge problem. In cassette BASIC you can only do I/O on the screen, the keyboard, and the cassette recorder. If you boot into cassette BASIC, you'll be bored pretty fast.

Next, there's the no disk problem. In cartridge BASIC without a disk drive, you can't do disk I/O. You can only use the communication and printer ports. In fact, cartridge BASIC has a terminal emulator built into it so you can dial up services like Compuserve. However, you can only download to the cassette recorder.

Third, there is the no cartridge problem, which I understand is pretty common. As I said before, you need a patch to enable IBM disk BASIC to work on the Jr. without a cartridge. The easiest way to perform those patches is to first copy the files BASIC.COM, BASICA.COM to a blank, formatted disk. Then type

```
DEBUG BASIC.COM          <ENTER>
```

Then type

```
U 3BA5 L 3                <ENTER>
```

Debug will respond

```
nnnn:3BA5      nnnnnn    CALL OBAD
```

If you don't see BAD, that's bad (what a coincidence!), so stop and ask somebody what's going on (press enter and type Q to quit DEBUG). The nnnn is a number that is unimportant unless you know DEBUG, in which case I don't have to tell

(Continued on next page)

BASIC and the PCjr.....

(Continued from previous page)

you what it is anyway. If you see BAD, then type

A 3BA5 <ENTER>

Debug will respond

nnnn:3BA5

you should respond

NOP <ENTER>

Debug will then say

nnnn:3BA6

and again you should type

NOP <ENTER>

One more time,

nnnn:3BA7

and you will type

NOP <ENTER>

When Debug says

nnnn:3BA8

Press the ENTER key, followed by

W <ENTER>

Debug will then write to the disk, saying

Writing nnnn bytes.

Then you type

Q <ENTER>

to get out of Debug and back to DOS.

Getting on with the story, if you have a disk, a

cartridge, and a 128Kb PCjr, then somebody at IBM must be smiling because that's how BASIC on the Junior works best. If you have expansion memory, then the strangest problem of all pops up, the big bad bug in cartridge BASIC. This bug shows up, oddly enough, as an OUT of Memory error when you've expanded the memory. The reason? Cartridge BASIC asks the system how many Kb of RAM exist, the system responds with a two-byte word (because you need two bytes to hold the number 640 in binary) and then the cartridge BASIC ignores the high order byte!

If you're mathematically inclined that means that cartridge BASIC thinks the memory you have is the memory you really have, modulo 256 (that is, you keep subtracting 256 until the number is less than 256). This is fine when you only have 128Kb because modulo 256 equals 128, but if you have 256Kb of memory, then cartridge BASIC thinks you have 256 modulo 256 which equals zero! No wonder you're out of memory. It's the same with 512Kb (512 mod 256 equals zero), and I'll wager that 256Kb and 512Kb are the most common memory sizes for expanded Juniors. Whoever designed cartridge BASIC just didn't take memory expansion into account. The software included with most memory expansion modifies the system so it never tells cartridge BASIC it has more than 255Kb of RAM, even if more exists. That fixes the problem in most cases.

There is still one problem that is impossible to fix without changing cartridge BASIC itself. It manifests itself mostly for people who install ramdisk devices. The device driver, when it is creating the ramdisk, tells DOS that it is using an area of memory for the disk, and that DOS should load programs past the ramdisk area. Cartridge BASIC is just another program; it uses RAM to hold the BASIC statements and variables. If the end of the ramdisk goes past the 256Kb boundary, then you can't run cartridge BASIC, because it will think it's being loaded beyond the end of memory and blow up.

To make full use of cartridge BASIC, it must be loaded at some point before the 192Kb boundary, because BASIC wants 64Kb to work with. If cartridge BASIC is loaded somewhere between 192Kb and 256Kb, you won't get the usual "60130 bytes

(Continued on next page)

BASIC and the PCjr.....

(Continued from previous page)

free" message, but a smaller number instead; the closer to 256Kb, the smaller the number. Users of RAM-resident routines like Sidekick or ramdisks should keep this in mind. Of course, some RAM resident programs put themselves in the high end of RAM, leaving the bottom of memory free; the program's documentation should tell you which it does.

Disk BASIC doesn't have this memory size bug, so you can rename and run it instead of cartridge BASIC. However, you then have only PC graphics and sound without the PCjr enhancements. Also, when you start renamed disk BASIC, the soft key labels are missing. If you are used to hitting FN + 2 for RUN, you're out of luck unless you use the KEY n,x\$ BASIC statement.

Perhaps most important, the OPEN COMx: statement has a problem with the Junior's baud rate divisors. If that's Greek to you, it means that the PCjr will have trouble talking to modems because the baud rate is slightly off. Since most people out there use BASIC to run PC-TALKb, I've included a merge listing (see sidebar below) which will work for all possible baud rates on the PCjr. Just change all OPEN COM statements to GOSUB 21000. For an internal modem, change all instances of &H2FB to &H3FB in the listing below.

All this might be moot if IBM comes out with a new version of cartridge BASIC that fix-

(Continued on next page)

Merge Listing for the PCjr

```

21000 OPEN COMMS$ AS #1 'Let BASIC open the port M$
21005 'If this is a PCjr adjust rate divisor else do nothing
21010 DEF SEG=&HFOOO:IPC=PEEK(&HFFFE):DEF
      SEG:IF IPC<>&HFD THEN GOTO 21070
21020 MODEM=INP(&H2FB) 'Get comm parms
21030 MODEM1= &h80 'DLAB is left-most bit in loc &H2FB
21040 OUT &HSFB,MODEM1 'SET DLAB to 1
21043 'Get the 16 bit baud rate divisor value set by basic
21045 IDIV1=INP(&H2F9):8DIV2=INP(&HSF8):
      IDIV=256*IDIV1+IDIV2
21047 'Change the PC divisor to the PCjr's
21050 IF IDIV=1536 THEN IDIV=1491 ELSE IF
      IDIV=1047 THEN IDIV=1017
21051 IF IDIV=768 THEN IDIV=746 ELSE IF
      IDIV=384 THEN IDIV=373
21052 IF IDIV=192 THEN IDIV=186 ELSE IF
      IDIV=96 THEN IDIV=93
21053 IF IDIV=64 THEN IDIV=62 ELSE IF
      IDIV=48 THEN IDIV=47
21054 IF IDIV=24 THEN IDIV=23
21057 'Set new divisor value for PCjr

21058 IDIV1=IDIV/256:IDIV2=IDIV-256*IDIV1:
      OUT &H2F9, IDIV1:OUT &HSF8, IDIV2
21060 OUT &H2FB,MODEM: MMM=INP(&H2F8)
      'RESTORE DLAB TO 0 & other parms.
21070 RETURN

```

BASIC and the PCjr.....

(Continued from previous page)

es that bug (it's only a few more bytes of code, and it would make people's lives much easier). I've heard tell of a second cartridge BASIC that you can identify by the ROM date. To read your cartridge's ROM date, type

```
DEBUG <ENTER>
D E800:1D L 6 <ENTER>
```

assorted numbers
on this side

MMD
DYY

where MMDDYY is the date.

Q <ENTER>

My own cartridge BASIC, which initializes by saying it is version J1.00, is dated March 21, 1983. Well, I hope that this hasn't been too confusing; with all of the questions about running BASIC on the the Junior, I felt BASIC on the PCjr needed some explanation.

REPRINTS

Below is a list of reprints that are currently available for purchasing. Please use the order blank below and send remittance and form to: The PCjr Club, Reprints, P.O. Box 59067, Schaumburg, IL 60159-0067.

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NEWS FLASH:

MURDOCH SELLS NEW IBM SPEECH ATTACHMENTS TO PCjr CLUB FOR IMMEDIATE DISTRIBUTION!!!

In an incredible turn of events, PCjr entrepreneur Robert Murdoch has sold his remaining stock of IBM PCjr Speech attachments to the World-renowned PCjr Club in Schaumburg, Illinois. The number of Speech attachments remaining was placed at only 4 according to a PCjr Club spokesman. They will be sold at a discount to PCjr club members at a cost of \$85. plus \$5. S&H, which is less than a third of their original \$300. cost. Those subscribers interested were instructed to send a check or money order (US funds only) to The PCjr Club, IBM Speech Attachments, P.O. Box 59067, Schaumburg, IL 60159-0067. No further details were given.

Problems With Your Subscription?

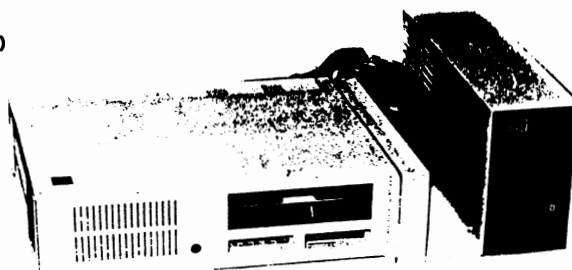
Are your newsletters coming to you mangled, torn, or like they've been through the laundry? Or have you missed an issue that you shouldn't have? Well, the mailing process is the only thing that we do not control, but if you could write a short note to The Junior Report, P.O. Box 59067, Schaumburg, IL 60159-0067, to the attention of Lily Fischbach, Circulation Manager, explaining your problem, we might be able to do something. The most important thing is to include your **telephone number** in your correspondence. We send out thousands of issues each month, so we expect some problems, and the best we can do is to solve them as quickly as we can to keep you happy. We would like to make your subscription with us as carefree as possible.

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If you ever decide to upgrade to any PC/XT compatible computer, just call SPC and arrange for a swap to an XT-compatible booting controller. Your Diskit will **never become obsolete**, and there's **no charge**.

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For a system with ever-expanding storage requirements, the REMEDY drive allows the user to remove the entire 20 Mb. file and replace it with another. It offers the same capability as the popular **Bernoulli Box** but at a fraction of the cost.

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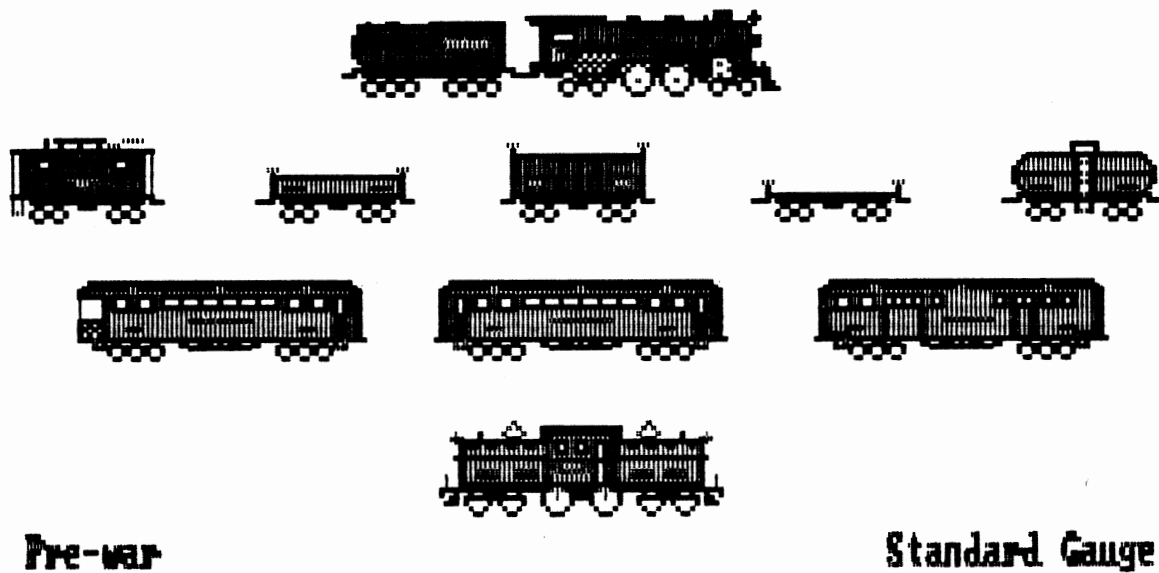
The **Diskitjr** will work in conjunction with almost all other vendors' add-on products. The Diskitjr side-car simply plugs into the extended 60 pin expansion bus on the side and connects to the drive with a cable pair. It works with Tecmar, Quadram, Impulse, Racore (non DMA), Microsoft, etc.

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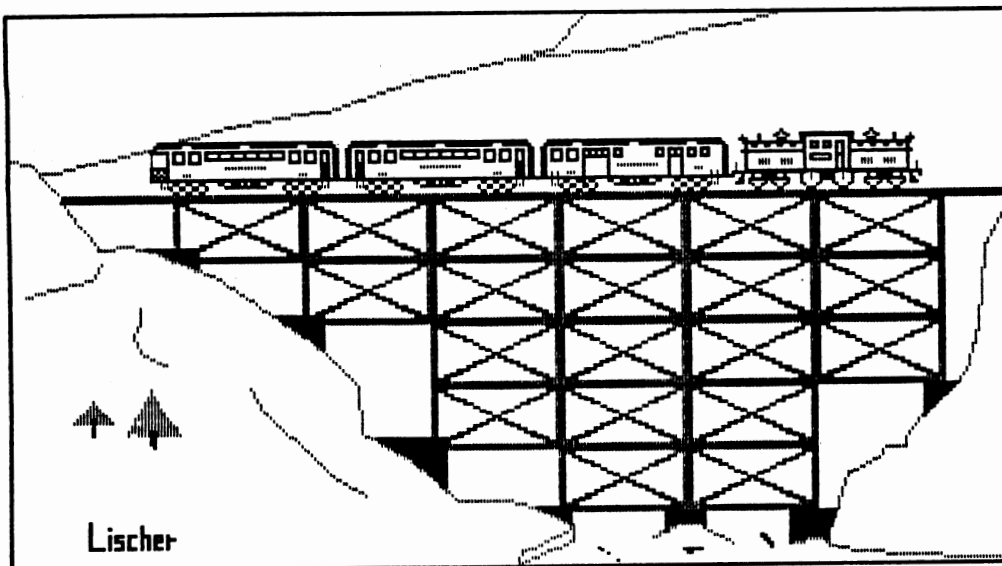
The **Diskitjr** hard disk is the best system available at the lowest price. Terms are COD cashier's check or prepayment by mail (5% discount with order). Add \$15 for UPS two day delivery, or \$25 for next day. Call **SPC** at (800) 345-0824 to order, or mail your order to the address above, including the model desired. Prepaid orders or orders with deposits receive first priority. Please call for additional information.

The Guggenheim Collection

Welcome again to the hallowed walls of our world famous PCjr art collection. This month the Institute is pleased to exhibit the works of Mr. N. Thomas Lischer, well-renown artist residing in Brunswick, Ohio. Mr. Lischer's interest in model trains is quite evident in his detailed, soulful work that transcends the work commonly found on that graphics computer that starts with an M and ends with an H. Mr. Lischer uses a program he wrote himself - PICO-CAD on his 128K PCjr, and has his masterpieces produced by a Star Micronics Gemini 10X.



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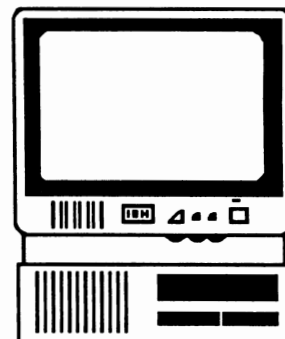
"Upon this rock"...Matt. 16:18

MOVING?

Make sure you let us know way ahead of time of your next move, so that you don't miss any of the breath-taking issues that are on the way. Please include your former mailing label in your correspondence, and address it to the attention of Lily Fischbach, Circulation Manager. She's ready for you.

Is Your Junior An Artist?

The PCjr has its drawbacks, but it performs a lot of computer chores admirably, such as word processing and database management. Another strength is Junior's graphic abilities. With or without a mouse, there is an abundance of good to great drawing programs that run well on the PCjr, and the best part is that they are all coming down in price. Whether you draw for fun or for profit, we would like to see your work. Just send in a printout of your masterpiece to The Junior Report, The Guggenheim Collection, P.O. Box 59067, Schaumburg, IL 60159-0067, and we'll feature some of the best pieces during the year, and at the end of the year, we'll pick the very best drawing and award a first (IBM PCjr speech attachment), second, and third place prize. Just send your masterpiece, a description of your PCjr setup, and the software you are using. So let's see how good your PCjr really is with a brush. You may surprise your Junior and yourself.



The Junior Report*

The National Newsletter for PCjr Owners

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S 87

New Shareware

How about a **FREE** library case that holds up to ten 5 1/4 " diskettes? It's yours this month **FREE** with each order of six public domain programs or more. Each diskette holder is made of high-impact plastic in a smoke-clear color so you can see what's inside. This offer is only good for all orders received by October 31, 1987.

EXTRA SENSORY PERCEPTION (#87):

So you think you have the "gift", huh? Well, you can find out with the main program on this disk which tests your ESP quotient. It makes for a very interesting time as you test yourself or your friends. This disk also contains a couple of versions of the game PAC-MAN for both monochrome and color systems. ESP - some have it and some don't. Do you?

PC-DOS HELP (#88):

Does DOS seem like Greek to you? Well, there's lots of hope and good instruction in this special program disk. This program provides an on-line help capability for those DOS commands - just type HELP and the selected command for doing something. Two level explanations plus special batch files demystify the learning and usage of DOS. Special attention is given to the PCjr owner with files such as CNV2*.BAT, CNVPCJR. BAT, HELP2*, DIR, and HELPPCJR DIR. This disk should be found on every PCjr owner's shelf, whether you're a beginner or a seasoned pro. Contains an excellent manual on diskette.

MAKE MY DAY (#89):

Not Clint Eastwood on a PCjr, but a complete, computerized time management system for the PCjr owner. It contains an appointment calendar, a job scheduler, a time log, and an expense account manager, but no .357 Magnum that can blow your head clean off. It can be used to keep track of all of these things for one person or for several people. MakeMyDay uses your printer to produce all the worksheets and printed reports you need to organize your business and personal schedule.

MEALMATE and others (#90):

Mealmate is a planning aid for people preparing meals for someone on a carefully controlled diet. Mealmate presents nutritional information on many common foods, combines the information from meal plans or menus to check the total nutritional content of a planned diet, and makes it easier to plan more varied meals or to help in choosing substitutes for hard to find diet items. Mealmate is the indispensable guide for anyone preparing meals that have to meet strict requirements for calories, proteins, carbohydrates, and fats.

Letters.....

(Continued from page 5)

port. Based on that issue, I think I will enjoy (and rely on) your publication. I would like to ask a question, though:

I plan to replace my PCjr keyboard with an XT or AT style keyboard. However, I have noticed in the advertisements that some keyboard brands require the use of the light pen slot (no problem with that) and the serial port, and indicate a problem using joysticks. I cannot dedicate the serial port because my next purchase will be for a modem, and I use my joystick extensively. Is there any AT/XT/PC brand keyboard for the PCjr that will not use the serial port or conflict with the joysticks?

I would appreciate any suggestions you might offer.

P.S. My system configuration is an enhanced Junior with a Racore Companion Drive Two Plus, a Tecmar jrCaptain (128K), a jrCadet (384), and an Epson RX 80 printer (using the Tecmar jrCaptain port).

M.H. Mason
Las Cruces, NM

Dear Mr. Mason,

We like two PCjr keyboards in particular that will perform admirably on the Junior - the Keytronic PCjr keyboard Model #KB-5151jr and the Cherry Keyboard Model # KXN#-8451, though we like the Keytronic over the Cherry. Both will not take up the serial port and will not affect your joysticks. The availability of these two keyboards vary from vendor to vendor, so please check with each. Most inexpensive PC XT keyboards will also work well with the Junior, provided you have the PCjr - PC keyboard adaptor cable. Again, each vendor can provide the critical details for your needs.

All letters become the property of The PCjr Club and are subject to editing for length and clarity. We cannot publish letters that do not include a name, address, and phone number for verification. We're sincerely sorry that we're not able to answer letters personally, but will attempt to cover as many questions and topics as possible in this column.

PUBLIC DOMAIN AND USER SUPPORTED SOFTWARE

Don't forget the new programs on page 25!!

- PC FILE III (#1): the classic, updated, full-featured database program that has set the standard for shareware programs. Considered by many to be better than most commercial programs. Version 4.
- PC WRITE (#2): this best-selling shareware program is equal to or better than most word processors on the market. This is the latest version (2.55) and will run on the single drive, 128K PCjr.
- PC TALK (#3): PCjr adapted version of one of the most popular communications programs.
- HOME MANAGEMENT (#4): a reliable, general purpose financial manager.
- MONOPOLY (#6): Colorful, electronic version of the most popular board game in history. **Requires 256K.**
- KIDS (#7): a special children's disk composed of a kid's word processor, an intermediate math program, and a colorful counting game for the preschooler.
- PC-KEY-DRAW (#9): the most powerful graphics program available in shareware. **Requires 256K.**
- GAMES (#10): one of the best selling game disks has Combat, Dungeons & Dragons, & Global ThermNuclear War.
- PC TUTORIAL (#12): a course in computer and the PC-DOS environment.
- PC OUTLINE (#17): an easy-to-use outlining program that's a must for writers and aspiring writers.
- EDUCATIONAL GAMES (#18): features math exercises, thinking programs, and the classic Flashcards.
- LABEL MASTER (#19): the original label making program has a variety of uses.
- GAMES (#24): Poker games, Battleship, Land Mines, Fire, Grime, and Hostages.
- IMAGEPRINT (#25): A must-have printer utility that makes your dot matrix into a lean, mean, quality text producing printing machine. Can proportionally space text. Requires an Epson or IBM compatible printer.
- QMODEMjr (#26): a special PCjr version of the popular communications program, allows easy access to BBS's.
- PC-LEDGER & PC ACCOUNTS RECEIVABLE (#27): A very good business manager for the small and home business.
- EZ FORMS (#28): Create and print custom forms to fit every need. A business necessity. **Requires 256K.**
- PC-STYLE (#29): Written by Jim Button, helps improve your writing skills by analyzing your writing style. Easy to use, it wakes up your documents or prose, making your writing more readable and stylish.
- VISIBLE-PASCAL (#30): A special version of Pascal for novice Pascal programmers.
- PC-CALC (#31): A "visible" spreadsheet program that challenges those offered commercially. Income tax computations, calculating depreciation, computing loan interests, or just plain balancing your checkbook are just some of the chores this program can handle.
- PC-GRAPH (#34): Also by Jim Button, create an assortment of graphs from databases such as PC-File, or spreadsheets, too.
- DOSAMATIC (#35): No, it doesn't slice and dice onions, but it is one heck of a DOS utility, that includes multi-tasking abilities, debugs, sorts, and much more.
- PC-DESKMATES (#36): A memory resident that includes an alarm clock, phone book, calendar, notepad, and printer commands.
- GAMES (#38): Frogger, Wa-Tor, R-Logic, and Zaxxon, among others.
- GAMES (#39): Includes Yahtzee, Chess, Slot Machine, and Wizard.
- GAMES (#40): How about a game of CoreWar, Keno, Othello, or Golf?
- GAMES (#41): Features Striker, an arcade-style helicopter attack game that will make you swear you're in a real arcade. Also has Catacombs of Nemon, and JumpJoe.2 (A donkey Kong lookalike) **Requires 256K.**

PUBLIC DOMAIN AND USER SUPPORTED SOFTWARE

To order any Public Domain disk, please send \$5.50 (U.S. Currency) for each program (\$10.00 for non-members) which includes shipping and handling and send to: The PCjr Club, Public Domain, P.O. Box 59067, Schaumburg, IL 60159-0067. Please allow four weeks for delivery. All orders outside of the United States and Canada, please include \$10.00 (U.S.) per order.

Please circle one or more below

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GENEALOGY (#42): Contains both informal format and LDS format for you to see if you are related to the Czar of Russia.

TRIVIAL TOWERS (#45): Trivial Pursuit in a computer form, has six categories from which to choose, or write your own questions and answers. **TWO DISK SET - \$9.00.**

GENERIC ADVENTURE GAME SYSTEM (#46): Create your own exciting, adventure world where you are the hero or heroine. You supply the imagination and GAGS does the rest. **TWO DISK SET - \$9.00.**

ULTRA UTILITIES (#47): features U-File, U-format, and U-Zap in a powerful collection of programs that will allow you complete access to the power of your PCjr DOS operating system and of your PCjr disk drive controller circuitry.

CASHTRAC 5.15 (#48): an excellent program intended for use by the household manager, club treasurer, small business, and expense account keepers. **Requires 256K.**

PCjr UTILITIES (#49): special utilities for Junior includes a print spooler, two text editors, and a program that can create special PCjr keyboard templates for WordPerfect 4.1, Reflex, PC-Write 2.55, and others.

GOOD HEALTH (#50): features PC-Recipe, a fun program that maintains recipe information, and allows you to display, update, add, change, and re-calculate recipes. Also has BioRhythm and ELIZA, the "artificial intelligent" companion.

TUNE TRIVIA (#52): Quick, for one thousand dollars, NAME THAT TUNE! For up to six players.

GAMES (#53): arcade-style games featuring Warrior, Empire, and Wumpus. **Requires 256K.**

GAMES (#54): play arcade-style, 3-D 3-DEMON, and also Afghanistan, Dominoes, and Hostages. **Requires 256K.**

PROCOMM 2.42 (#55): This has become the new standard in Public Domain communications software. Powerful and easy-to-use, this version is the one that works well on the Junior. **Requires 192K. TWO DISKS - \$9.00.**

GAMES (#56): Includes three casino games led by Las Vegas Style Craps that includes its own tutorial, three text adventure games, and an assortment of other arcade games that should keep everyone busy.

Jr MUSIC MACHINE (#57): One of two music programs on this disk, this program lets you play and see music simultaneously, and utilizes Junior's special sound capabilities.

GOLF HANDICAPPER (#58): Allows you to compute, store, update and print golf stroke handicap information for up to 75 players, using the handicap formula established by the USGA.

PC-FONT (#59): A utility program which enables your Epson or IBM Graphics printer to print a variety of fonts that includes block graphic, engineering, scientific, foreign language, and other special characters.

SLEUTH (#61): A murder has just been committed, and your job is to mingle with houseguests, search the house, and solve the crime. Every game is different. If you like the game of CLUE, you'll love SLEUTH.

SAN MATEO EDUCATION (#62): Educational games for children 12 years and older. Includes scramble, states, nations, chemist, and many more.

BUTTON GAMES (#63): Includes Buttonware educational and adventure games SOUTH AMERICAN TREK (You are a special investigator for the Federal Geographical Magazine and you have been sent to gather information about each country in South America. Your travels will take you from one end of the continent to the other where you will be picked up by a friendly submarine), and CASTAWAY (You are shipwrecked in the Pacific, slowly drifting through the fog until you find a deserted island. There you find countless treasures, but they are worthless if you cannot return to civilization. Will you be able to get off the island?)

PC WRITE 2.7 (#64): Newest version of best selling Public Domain word processor. Now has Spelling checker. **Requires 256K. Two disks \$9.00.**

THE DESIGNER (#65): a fantastic programming tool for BASIC users working with animated graphics on the Junior. You can draw on the screen in color, store your work in either "screen" or "sprite" form, and recall it later to make changes.

MR. LABEL (#66): many business and home uses - can create everything from simple reports to custom labels, prints envelopes, letterheads, price tags, ID badges, file folder labels, name tags, inventory slips, and much more. Will also retrieve and print information from databases such as PC-File and dBase III+. **Requires 256K.**

QFILER (#67): the famous file maintenance utility that also prints up its own function key template. **192K.**

GAMES (#68): includes PC BOWL, Backgammon, and NIM.

SIDEWRITER (#69): Prints text files sideways. A must for spreadsheets that cannot fit into 80 or 132 columns across.

DUNGEONS AND DRAGONS (#70): The most popular of all games in this genre, this will place you in a world where the fantastic is fact and magic really works.

BEYOND THE TITANIC (#71): Enthusiasts of Infocom's famous text-adventure games will find this as exciting as Zork or Planetfall.

PC-CHESS (#73): A true, stand-alone chess program that will challenge you like no other program before. This is a full-color multi-featured program that can run on a 128K Junior.

JAPANESE (#74): An introduction to this fascinating language. May be important to the businessman or traveler.

PC-FILE+ (#75): Power-pack update for the most popular shareware program of all time. A must for any serious database user.

PINBALL II (#76): For all pinball wizards and non-wizards. Provides hours of challenge. Requires a joystick.

MAHJONG (#77): One of the most popular games in the world, it employs extraordinary graphics, and has extensive documentation for the beginner. Color only for Racore owners.

AMY'S FIRST PRIMER - PCjr Version (#78): This is probably the best collection of educational games in the world of Shareware for the pre-school. Includes sing-a-long alphabet, letter-matching game, numbers-matching game, among others. Colors are spectacular.

ORIGAMI (#79): Brings the ancient art of paper folding to your Jr world. Create rabbits, jets, penguins, samurai helmets, etc.

BIBLEQ (#80): Bible trivia covers a wide range of topics such as geography, personalities, incidents, and teachings.

JRCONFIG.SYS (#82): Updated version of JrCONFIG.SYS & CONFIGJR.SYS. The only must have utility for ALL PCjr owners. The most powerful and flexible software for getting a PCjr to run with expanded memory and additional disk drives. The list of special PCjr features is too lengthy to print here.

1-2-3 WORKSHEETS (#83): Among others, loan amortization, check book manager, etc. **Req. 256K, 2 dr, & Lotus 1-2-3**

WORLD STATISTICS (#84): Simple, menu-driven database of statistical and demographic information about the nations.

PHRAZE CRAZE (#85): Like Wheel of Fortune gameshow, easy to learn and play. Great fun for the whole family.

EMS & MAROONED (#86): EMS is a employee management program that uses responses to descriptive statements, then analyzes them and prints out a 5 page report on the personality. Marroned is a text-based adventure game on an alien planet.

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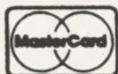
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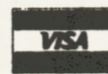
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