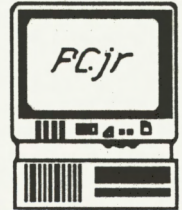


# The Junior Report



October 15, 1987 Volume 3 Number 10

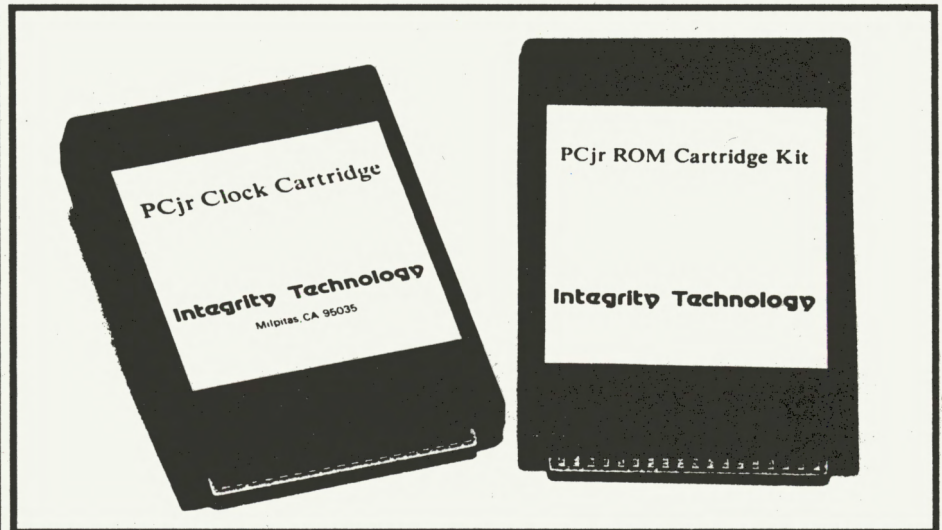
The National Newsletter for PCjr Owners

**Integrity Technology Announces PCjr Clock Cartridge and ROM Cartridge Kit**

## TWO NEW PRODUCTS FOR JR!

Integrity Technology of California officially announced its entry into the surprisingly active PCjr aftermarket by presenting two new products for the Junior: a PCjr Clock and Calendar Cartridge and a special ROM cartridge Kit. Both products are now available directly from the manufacturer.

Integrity Technology of Milpitas, California has been around for a while. In computer world terms that translates into a long four years, enough time to become a seasoned veteran of the PC



aftermarket competition. Besides the PCjr products (which now make up 30% of its production, Integrity supplies printed circuit boards to clone makers. The Jr products, though new to the PCjr owner, were actually conceived

three years ago by Larry Wong and his partners. With the "no-miss" label pasted on the PCjr upon its introduction, Integrity

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## New Patches Allow Jr To Run Programs

There have been rumors galore recently describing some new patches that purportedly allow the PCjr to run previously incompatible software. Most of these patches were said to be making the BBS rounds, and we were investigating these claims all month. However, Mr. Sandor Borbas of Yonkers, New York, has submitted a disk to our offices that has the patches to allow the PCjr to run Microsoft's QuickBasic 3.0 and Borland's Turbo Basic to

name a few. The patches were found from the most part, on various BBS's across the country. Mr. Borbas has tested most of the included patches, and for the next couple of weeks, we'll be testing them all before we offer them to our subscribers. On page 10 you'll find the first patch we have tested (a patch to allow Borland's Turbo BASIC to run on the Jr) and it works.

In this special letter, Mr.

*(Continued on page 10)*

**Editor's notes:** If the following few pages seem a bit erratic to you, it's because I've been in quite a bad mood since the strike, which I feel is really doing irreparable damage to the kids, the city, and the fine people of Chicago. The Chicago school strike? Naw, the NFL players strike, of course. Anyway, if any of you Juniorites out there have HBO, you might have noticed that one of the most outspoken players of the strike, Todd Christiansen, uses a PCjr in creating his weekly commentary. Yep, this All-Pro tightend of the Oakland, I mean, LA Raiders can often be seen sitting in front of his Junior during his weekly appearance on Inside the NFL, HBO's contribution to the football mania. Hmmm, I wonder if The Writing Assistant can spell-check the word SCAB? .....we have another important survey for all of you to fill out this month on page 15. Survey #4 dealt with compatible software for the PCjr, and this month's Survey #5 deals with software also, shareware in particular. It is an important survey because it really lets us know how you feel about shareware and public domain software. Do you use them? Is it worth it? What programs are the best? What programs are the worse? Which are your favorites and which should be eliminated from the library? We'll find out shortly. As always, we'll pick four respondents at random and reward each of them with an official *Junior Report coffee mug*.....The interest in last month's cover article on The Nickel Express Jr, a turbo board for the PCjr has been overwhelming, according to Paul Rau, distributor of the unit. As we said last month, the board reportedly will increase Junior's clock speed from

4.77 Mhz all the way to 8 Mhz. However, Paul Rau has informed us that some Tecmar and jrHotshot owners have reported some incompatibility problems with the turbo board. To quote Paul Rau, "the IBM sidecars work the best. The jrHotshot is being worked on, and should be resolved shortly. It may mean replacing a chip on the board. The turbo board works fine with R-core DMA in the medium speed setting, which is 7.37 Mhz. The Tecmar boards will run at the slow speed setting, which is 6.66 Mhz. The 128K PCjr works on the slow setting but is not much of an increase because software is needed to rearrange the video buffer which of course does not work with 128K." By the time you read this, more compatibility problems may have been solved. A quick call to Paul Rau will give you the updates.....Speaking of hardware, we have three new products in the office at this time being tested for review in our newsletter. The Nickel Express Jr is being tested on our PCjr with the Microsoft expansion board, SPC's 20 meg hard drive is currently performing with our Tecmar enhanced PCjr, and Synectics Products new ROM character chip is being tested on everything. The ROM character chip is intriguing for this writer because it will produce a character on your PCjr color monitor one pixel in width versus the current two-pixel width. This narrowing of the characters is supposed to create a more readable text, which would be a most welcome sight (no pun intended).....And the list gets longer - the PCjr vendor list, that is. PC Dimensions out of Iowa, a new company "dedicated to the

(Continued on next page)

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## Editor's Notes.....

(Continued from previous page)

growth of the PCjr", has started to serve the Junior owner with Racore and Datadesk products. Owner George Suppes states, "The Junior is an excellent machine which with the right enhancements can be a computer for virtually any use. It is the goal of PC Dimensions to bring the Junior up to that level of use at prices everyone can afford." PC Dimensions can be contacted at 303 3rd St. S.W., Mt. Vernon, IA 52314.....Aren't we getting a little tired of having to always find a patch for this program and that? There are 500,000 PCjr owners - that's half a million! We don't have to sit back, take abuse, and watch our computers slowly sink into oblivion. We can take action. Mr. Sandor Borbas gives us one good idea as to how to fight back PCjr discrimination (see page 10), and here's another way we can make our message known. Many of you are already in the habit of writing to various manufacturers about the PCjr plight. Now, starting this month, all of us can take an active part in keeping the PCjr alive and kicking. On page 11, you'll find a letter to the Microsoft Corporation deploring the decision to make QuickBasic 3.0 non-PCjr compatible and a short course in reasoning as to why it makes sense not to ignore 500,000 potential customers. It is addressed to Ms. Terri Anand, Microsoft Support Services, 16011 NE 36th Way, Box 97017, Redmond, WA 98073-9717, and is there for you to cut out (the back is blank), xerox, or just copy to send to Microsoft to let them know we're sick of being ignored. Next month it's going to be Borland to hear from us, and hopefully, somewhere down the line, we won't have to write letters any more, and we'll be able to enjoy the benefits of finally taking a stand. We don't want 95% compatibility; we want 100% compatibility. A few letters won't do it; a lot of letters might; thousands of letters should. Maybe none of this will mean anything at all, but it's time for us to quit belly-aching about the lack of software and get off of our duffs and *do something, anything*. Remember, "**United we stand, divided we fall,**" (Senator Joe Biden).....speaking of falling, here's a tip from Richard Byron of Computer ReSet as to how to keep your PCjr from falling into repair. Richard's company, which also does PCjr repairs, has told us that the two most important things a PCjr owner can do to prevent breakdown are get a good surge protector, and make sure that the PCjr

power brick is not connected continuously. There are a lot of **blown PCjr power supplies** floating around, and most of these could have been avoided by plugging your PCjr into some kind of power strip with an ON-OFF switch.....on page 13 of this issue we're starting a small column to announce current revisions of our PCjr software compatibility list. All of the corrections will be in the new periodic list, but we feel everyone should see some of the revisions as they come in. As we said earlier, the PCjr compatibility list should be and is a dynamic one as PCjr owners report on the software climate of the Junior world.....how about a free classified ad section for subscribers? If you have an extra memory board, mouse, joystick, or monitor to sell, just send a description of the items to our offices (**Attention - Classified Section**), and we'll print it in a regular column. We'll run the ad for two months at a time, or until we are notified to stop it. You must be a member, and include your address and telephone number in your ad. Of course, we'll reserve the right to have total control of the section, which would include editing and deleting any questionable ad to protect our readers. Remember, this is for PCjr parts and accessories only.....well, that's about all for now. I hope they settle the strike by the time you read this, otherwise you might be seeing more of my militant nature in the future. I get nasty sometimes. Of course I'm joking about the importance of pro football in my life; I'm quite a strong person who doesn't have to watch football to get me through the winter (**I'm lying**), but I'm dead serious about how every PCjr owner really has a say in the future of the PCjr. Let me be the first to say that we have done quite well already. We've surprised many critics with both the continued support for our computers, and the vitality of our love affair with the Junior. We here at The Report see it; now it's time for all of the software companies to see it as well. Of course, our lives will go on regardless of what ultimately happens to the Junior. But wouldn't it be great if we did prove everybody wrong? That we, the owners and supporters, could actually change the course of computer events? We can and should be heard. It's never been done before, but together, we can make a difference. Can you spell HOPE?

## LETTERS

I've read with great interest my first issue of The Junior Report. There are three things I need a little help with:

1. Acronyms - All of the Racore ads refer to DMA. What is DMA? I don't mind acronyms if they're defined first, but I sense that they're often used to do a snow job on the uninitiated.

2. I have the Tecmar Captain, with built-in clock, which gains 2 minutes a week. Sure I can reset it, but isn't this a bit sloppy for a highly touted item? Can this be fixed?

3. Your article on Gato was great, a game which I enjoy very much. You mentioned setting the game control to the PCjr mode. How is this done? My instructions don't cover this. Anyway the chart screen traces my sub in almost the same color as the background. It would be nice if this trace could be made darker. Is this possible?

I would appreciate any help you can give me with the foregoing.

Edward Druschel  
Landisburg, PA

Dear Edward,

1. DMA stands for Direct Memory Access. To be more precise, the PCjr lacks a DMA chip which is found in the PC-XT. In the PC and PC-XT, data that's being read from the disk goes to this DMA chip and straight into memory, bypassing the central microprocessor. In contrast, the job of recognizing, inspecting, and supervising this passage of data bits from disk to memory is handled by the Junior's central microprocessor, because of the lack of DMA. Since the Junior's microprocessor still has to handle the rest of its normal tasks, it has its hands full. Consequently, since it is doing extra work, some applications, especially those that require DMA, tend to run slower on the Junior.

2. The Tecmar jrCaptain is a highly-touted item. Its clock is not, however. From our experience, the Tecmar clock is not that reliable; some clocks are slow and some run faster like yours. The only suggestion that might help is to change the battery, which can be obtained directly from Tecmar.

3. The earlier versions of GATO did not have a PCjr mode to set, while the newer versions do.

*Whether you have the old or new, you are correct to say that this sub simulation/game is a classic. The quality of the game is even more obvious if you were to compare it to some of the newer sub games, which are not even in the same league as GATO.*

I have an IBM-XT at the office and a PCjr at home. I am getting rid of the XT, but kept the Junior because it is compact, has color and, with Tecmar's help, has much more memory (640K). I added a SPC 20MB hard disk drive a few days ago before your May issue on the subject. It's fine, but I always seem to buy things before I know what I'm doing, and the next item where help is overdue is keyboards.

I use the Junior for articles on economics, like the one in the Wall Street Journal, July 27. That means I need good color graphics (for slides) from Harvard Presentation Graphics, and good word processing, WordPerfect. This is state-of-the-art software, and both work perfectly on the Junior. I'm told it's slow, but I don't notice it. I like coffee breaks.

The Junior keyboard is less than ideal for WordPerfect, because I have to push the function key so often, but I might keep it anyway because the small size is so handy on a home side desk. The trouble is that WordPerfect really needs a "cheat sheet" or template for the function keys. As far as I know, nobody makes one. Why not? It scarcely requires a huge factory to put a few numbers and words on a plastic sheet, so somebody is missing some easy monopoly profits by not making Junior cheat sheets and, of course, advertising them in your journal.

Assuming no entrepreneur jumps to that bait, I'll probably change the keyboard to match the template, which seems like changing cars to match a set of tires. I suspect that a lot of your readers would appreciate an article on the merits and demerits (and prices) of the various alternative keyboards.

Alan Reynolds  
Morristown, NJ

(Continued on next page)

## Letters.....

(Continued from previous page)

Dear Alan,

We're glad you're so pleased with your PCjr's performance. We have not had the opportunity to use Harvard Presentation Graphics, but we are addicted to WordPerfect on the PCjr. We think that the combination of the Junior and WordPerfect provides the best in PCjr word processing. Every Junior that we use here has an upgraded non-IBM keyboard except for one, and on that system, we have gotten around the function key problem by using a WordPerfect template specifically designed for the IBM PCjr enhanced keyboard (not the chicklet board). This template can be obtained from our Public domain and shareware program PCjr Utilities on diskette #49, and is produced on your own printer, along with templates for other programs such as Reflex and PC-Write 2.55. If you still have one of the original PCjr chicklet keyboards, there are still overlays available for them from some of the vendors in this newsletter that you will be able to customized with the various WordPerfect function commands.

We have reviewed both the Keytronic and Cherry keyboards in the past (both received high marks) and are currently testing an inexpensive clone PC-XT style keyboard from Computer Re-Set in Garland, Texas. Even with the computer-generated template for your PCjr, you'll still find that for the serious writer, upgrading from the original PCjr enhanced keyboard is a very worthwhile investment.

I would like to compliment you on your publication. It has provided me with much useful information on the Junior.

Even though I am also using a PC and an AT compatible, I find I still enjoy using the Junior very much for many programs, and my nieces and students in high school enjoy using it.

I would like to warn your readers of the National PCjr User's Group. I joined both your organization and theirs at the same time, but instead of gaining anything useful from the other group, I have, in 8 months only received one listing of "deals" they had to offer, and this was in a haphazard format. Both ads were in Personal Computing; your group I feel has given me my

money's worth, the other was definitely a waste of \$20.

Thanks for the information you have provided.

Bill Thompson  
Tillsonburg, ONTARIO

Dear Bill,

Thanks for the compliments. There are a couple of PCjr "newsletters" out there that are more into selling than "newsletting". They do have their place by showcasing PCjr products. However, we feel that disguising a catalogue in sheep's clothing, and then charging \$18. or \$20. is not very nice. Thanks for telling the rest of your fellow PCjuniorites of this situation.

I read with great interest the PCjr compatibility list. I believe the Racore Hard Disk with DMA and 640K to be the single most significant improvement that anyone could make to their PCjr. With it, there is virtually very few pieces of software that won't run. As an example, allow me to add to the compatibility list (sorry for not writing sooner):

DataEase - Norton Utilities v. 4.0 - Copywrite  
Right Writer - Super Project - StarCross  
Sign Designer - CDEX series of instructional disks

Please note that I listed Copywrite as running on my Junior. You listed it as not working. With my configuration, I've never had any problem with it. You also listed Lotus 1-2-3 as requiring a special driver. I've run version 1A and 2.01 without anything special.

In answer to Mark Wilton (August Jr. Report), in London, Ontario - I'm running a Racore 20Meg hard drive and I've never had a bit of problem with temperature sensitivity. Mark might want to check the ribbon cable that is near the chassis mounted fan, it should be carefully positioned over the top of the fan and in no way block the air flow. If it is restricting air, this could create a heat problem. The only difficulty I see now is, how can Racore continue to sell their hard disk with DMA for \$895. when you

(Continued on next page)

## Letters.....

(Continued from previous page)

can buy an entire Quantas IBM compatible machine with monitor for \$995. or less?

Could you give us some history on The Junior Report? How did you come to start its publication? How many subscribers are there? Are there any reprints available prior to November 1986?

Thanks for a most informative periodical. Keep up the good work.

John Trapani  
Derry, NH

Dear John,

*I sense that you bought your Racore hard drive back when there wasn't anything else for the Junior available. And you are right in stating that hardly anyone can justify the current cost of Racore's hard disk. Though the price appears outrageous, it would still be less expensive for a Junior owner to upgrade with that Racore hard disk than to invest into a whole different system. (I'm sure the IBM-compatible system you're talking about has just a monochrome display and is without a hard drive. Besides, we see Racore having to drop its price on hard drives sooner or later just to compete with the current crop of PCjr hard drives (e.g. SPC's 20Meg hard drive for \$695, which we are currently testing). I trust you needed the hard disk right away and the added expense of buying one back then has been greatly paid back by all of the months of hard disk drive benefits and uses.*

*The Junior Report had its inception about the middle of 1985, a few months after IBM had announced Junior's discontinuation. A few of us PCjr owner/lovers lamented the lack of PCjr periodicals, and thought that with the discontinuation, it might get worse. That's when we had a VISION (with apologies to Bill Gates). A vision that someday Junior owners all over the world could have their own magazine to read and to hold forever more. Anyway, what could be more fun than to get together once-a-week and discuss the things we had learned about our Juniors? We were doing it anyway, so we decided to put our thoughts down on paper (actually a computer file). We gathered the dentist, a former stewardess, two lovely house-*

*wives, a college student, a software salesman, an IBM technician, and a mechanic to start a newsletter for PCjr lovers like ourselves. The first issue was 16 pages long, typeset, and printed by the miracle of the xerox machine. In fact, getting the first issue out was a miracle. The first month found the staff outnumbering the subscribers by a ratio of two to one. We "printed" almost the exact amount of issues each month, so very few of the early issues were available for reprint purchases. However, we do have the master copies, so perhaps you may eventually see them being offered some day.*

*As the months went by, we gained a bit more recognition and a lot more subscribers. But finally in September of 1986 PC World took notice of our small group of PCjr loyalists and wrote a nice little article on The Report in that September issue. Later we would receive some nice reviews by such famous columnists as Donald Trivette in Compute! and Henry Beechold in Family Computing, among others. The rest, as they say, is history.*

*Today we print about 10,000 issues a month and these are distributed to subscribers, PCjr Clubs, schools, and computer stores. Since there are some 500,000 PCjr owners out there, we have a great many more Junior lovers to attract. We've gained more writers and have increased our newsletter length to 28 pages, and hope to increase the monthly output again soon. It seems we have to cut out quite a few articles each month due to the lack of space. Though we have grown at a tremendous rate over the last year, we have not lacked faults, however. We wish we could answer every letter personally, but due to the tremendous volume of mail we receive each week, we haven't been able to process the piles and piles of letters. We do read every letter, however, and attempt to answer as many as possible in this column, through the mail, and even over the phone. We apologize to everyone that has written and has not received a reply. We're still trying and we'll try harder.*

*We have had a great time in publishing The Junior Report, and we hope that each of our readers get the feeling from each issue that we*

(Continued on next page)

## Letters.....

(Continued from previous page)

*really care about each and every one of you who support our work each month. We would like our newsletter to read like a personal letter to each PCjr owner, and at the same time give you plenty of PCjr news and tips that will help you maintain your Junior in its most entertaining and productive manner. We thank everybody for their support and we promise that we'll continue to give our all to make The Junior Report something very special to all of our fellow PCjr lovers.*

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.

## EXPAND YOUR PCjr

jr. Hotshot 512K Memory .....	\$179
Racore M1500 Drive 2 Plus .....	\$292
Side Car Memory 512K .....	\$235
Jr Datadesk Keyboard w/Superkey.....	\$130
20 Meg External Hard Drive .....	\$659
1200 Baud Internal Modem .....	\$249
3.5" External Disk Drive .....	\$299
Nickel Express Jr 8MHz Turbo Board ..	\$ 79

For a complete list with monthly specials send a stamped, self-addressed envelope to:

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## IBM, TECMAR, AND MICROSOFT EXPANSION BOARD UPGRADES

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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Mail form to: The PCjr Club, P.O. Box 59067, Schaumburg, IL 60159-0067  
ATTN: Brian Cook

## Clock and ROM Cartridges.....

(Continued from page 1)

tooled up its plants in the East to fabricate the ROM cartridges needed by software companies bent on flooding the PCjr market with game and application cartridges. In fact, the company spent a small fortune in developing and producing the ROM cartridges. Ninety percent of these initial products were marketed for OEM's, and the rest were targeted for the more technical Junior owner who had the knowledge and the expertise to program these cartridges. When the roof caved in with IBM's announcement to discontinue the PCjr in March of 1985, Integrity shrugged the loss and concentrated its efforts on the PC market. However, Larry Wong, senior Vice President, had a better idea of what to do with all of

those cartridges other than to let them collect dust; use them. A new clock and calendar cartridge was developed that would use one of Junior's front cartridge slots to keep the time and date. The rest of the cartridges would be made into kits for both the software developer or knowledgeable PCjr owner to create games and applications. Integrity is hoping that the majority of PCjr owners who do not have a clock (like the ones commonly found on memory expansion boards) will opt for the convenience of the clock-calendar cartridge, and that the more experienced Junior programmer will make great use of the ROM cartridge kit.

The clock - calendar cartridge, which also works

### The Clock Cartridge: It's About Time

If you're like a lot of Junior owners, most of the time when DOS prompts you to enter the date and time, you respond with two quick taps on the return key. Why should you enter the date and time? Well, for starters, whenever you update a file, the PCjr stamps the date and time in the directory, so you always know which is the most recent revision or file. Also, most applications have a feature wherein the date or time can be placed in the text with the simple tap of a key (e.g. The Filing Assistant uses the F2 key for the date and the F3 key for the time). If you don't enter the time and date, you cannot utilize this nice feature. Another advantage to having the DOS time correct is that with some memory-resident programs like Sidekick, one can display the time continuously on the screen, so that you don't miss that dental appointment. Calendar and personal scheduling programs are also dependent on the date and time. But who wants to check the wall calendar or glance at his watch each time he boots? Well, with Integrity's clock cartridge, you won't have to do anything except turn on your PCjr.

Nothing could be easier than to install the clock cartridge. Just place the cartridge into one of the empty slots below your disk drive, and voila, it's installed. Unlike with memory expansion modules, the PCjr automatically recognizes that a clock exists, so a batch file is not necessary on your boot disk. A memory-resident program such as Sidekick will use the time and date to control the various available mini-programs such as clock displays and calendars. Setting the physical clock is easily accomplished through a simple program called "setime" which is included in the enclosed software. Though the PCjr knows there is a clock, another program on the software diskette called getime must be placed in a startup file such as an autoexec.bat file, however, in order for the Junior to automatically set the DOS time upon booting. Once this is accomplished, your boot disk will not have to prompt you for the time and date and will go directly to a A> prompt. To see how fast the clock is updated, just run another program called showtime, and a display showing the correct time and date appears on the screen. The cursor flashing across the bottom of the display remarkably shows just how fast the screen is updated - every .06 of a second.

There are two other features worth mentioning about Integrity's clock cartridge package. The first is a matter of software compatibility. Another commercially-offered cartridge clock may at times be incompatible with some cartridge software because of the fact that it uses address space E000-E7FFF and conflicts may occur. Integrity gets around that problem by using one of six different, infrequently-used address spaces. If a conflict occurs, directions are included as to how to change a jumper within the cartridge to pick another address, thereby avoiding a possible conflict. The second feature that makes the cartridge more appealing is the inclusion of the ROM Cartridge Kit Technical Manual file in the software that accompanies the clock cartridge. Normally the cost of the manual is \$3.75., but it is included at no charge to the clock cartridge purchaser so that, according to Larry Wong, "the PCjr owner can 1)change the clock cartridge, 2)better understand the technology involved with PCjr ROM cartridges, and 3)hopefully, be enticed to utilize the knowledge to create his own cartridge software. We want the Junior owner to get excited about a feature of the Junior that everyone's forgotten."



on the IBM PC-JX (a version of the PCjr found overseas), will keep track of the year, month, day, hour, minute, second, and hundredths of a second while the PCjr is running, and even while it is turned off. This is accomplished with internal clock calendar circuitries and a replacable 3-volt, long life Lithium battery (rated ten years of shelf life).

The ROM cartridge kit includes a printed circuit board, top and bottom snap-on re-usable plastic enclosures and a foam piece. Each cartridge's printed circuit board can accommodate up to two 28 or 24 pins ROM (or PROM, EPROM, EEPROM) IC's in 256K to 8K formats (i.e. 27356 to 2708). The ROM cartridge kits do not include any ROM IC's. (See sidebar below).

Integrity is also offering a ROM Cartridge Kit Technical Reference Manual on diskette that will help

the PCjr cartridge programmer. The diskette discusses the ROM cartridge design, hardware assembly instructions, ROM IC memory addressing and programming conventions, EPROM programming hints, and printed circuit board schematics. It is offered separately.

The cost for the PCjr clock cartridge is \$34.50 each for single quantity (\$27.50 each for orders over 21 units), and the ROM cartridge kits are available for \$5.75 each for 4 or more kits. The charge for the ROM Cartridge Kit Technical Reference Manual diskette is \$3.75 per diskette. Shipping and handling is \$3.00 per order. For more information or orders please write to Integrity Technology, 105 Serra Way, Suite 230, P.O. Box 360604, Milpitas, California (408-262-8640).

### Something About the PCjr ROM Cartridges By Larry Wong

The IBM PCjr Computers have two ROM cartridge slots below the floppy drive. The internal design of the PCjr has reserved up to 128Kb of ROM (Read Only Memory) spaces, at memory address range from D0000H (Hexadecimal values) to EFFFFH. Both cartridge slots are identical. Examples of cartridge programming are the IBM PCjr BASIC cartridge, which is probably the most well-known cartridge program, Lotus 1-2-3, and MECA's Managing Your Money programs.

There are several advantages to ROM cartridges as the program medium. Program code in cartridge does not share memory cycles with the video buffer, so it executes faster than code residing in the lower 128Kb of the PCjr's RAM (Random Access Memory) space. The DOS programs we load and execute from floppy diskettes, typically begin in the lower 128Kb of the PCjr's RAM space. The cartridge is a much more reliable and durable medium than diskette, especially in home and classroom environments (diskettes, chalk dust, and finger prints don't go well together). If the program is on a cartridge, all the available RAM can be used for data, allowing the programs to run on a smaller memory machine (e.g. Lotus 1-2-3 in cartridge on a 128K PCjr). Also, the cartridge program does not need a long program loading time as with some programs found on floppy diskettes.

There are several programming languages you can use to program the PCjr ROM cartridge's ROM or EPROM memory. BASIC and Assembly program codes are two of the typical programming languages used for the ROM cartridges. To put the program codes into the ROM cartridge, I have found the following steps work well. First, write the ROM source programs, for example, in assembly language with a pre-defined starting program address in the ROM area, and assemble the program with the IBM Macro Assembler. Make sure the PCjr ROM definition Header and CRC code are included in the same source programs or in another program module. Link the object modules together into one object module. Erase the 2764 EPROM IC using a UV EPROM eraser. "Burn" this object module into the EPROM IC with an EPROM programmer. A popular EPROM programmer is Model 201 EPROM Programmer from DATA I/O Corp. in Redmond, Washington, while JDR Microdevice Corp. of San Jose, California offers the EPROM Programmer PC Interface Adapter Card which plugs into a standard IBM PC adaptor slot. JDR also carries standard EPROM IC's and EPROM UV Erasers. Finally, simple communication programs, such as PC-Talk, can be used to transfer object module files from the PCjr to the EPROM programmer for EPROM IC "coding". A detailed view of PCjr EPROM programming can be found in the file RC-TECH that can be found in the software accompanying the Integrity Technology clock cartridge. For further research on programming and ROM code design, I suggest:

1. The IBM PCjr Technical Reference Manual (Part # 1502264), page 2-107.
2. Peter Norton's "Exploring the IBM PCjr Home Computer", published by Microsoft Press, 1984, page 8.
3. "PCjr Cartridge Tips and Techniques", p. 37, The IBM Personal Computer Seminar Proceedings, Volume 2, Number 3, May 1984.

## Patches.....

(Continued from page 1)

Borbas also contributed another thought, " I'd like to propose a way to keep the Junior alive with the software designers. If whenever a Jr owner purchases a piece of software that comes with a registration card or anything that has to be returned to the company producing the software, let that person write on the registration card "KEEP THE IBM PCjr ALIVE" or something else in that nature. If the software companies started to receive thousands of these slogans (and reminders) from the thousands of PCjr owners out there, the many companies that have dropped the Junior as a supported computer would be forced to pick it up once more. Just to name a few companies that no longer consider making software that is compatible for the Junior are Borland, Electronic Arts, and a number of other small companies.

Before I leave you, I would like to say, wouldn't it have been easier to compile a list of programs that don't work on the Jr? Since the PCjr is almost 90% compatible with the PC, even more with upgrading, there is so much software out there that is not on your list that does work, but you have omitted."

Writing something on each registration card is a great idea. If the software companies only knew just how many PCjr owners actually buy their software, they would really see how profitable making PCjr-compatible software still is, and what a financial blunder discontinuing Jr software would be. KEEP THE PCjr ALIVE is a perfect rallying cry, and makes its point clearly without invoking martyrdom. Though we're not sure whether the warranty department has anything to do with those who make such decisions, every PCjr owner should adopt this policy of writing the message in big RED letters, reminding the company that PCjr owners are alive and kicking, and best of all, have money.

Listing non-compatible PCjr software is a good idea, but we still think showing what different kinds of software that can run on the Junior is more beneficial, though certainly not easier. The best idea is, of course, to make both lists, compatible and non-compatible, which we are compiling all the time. The new lists will be updated in the near future.

Our deepest thanks goes to Mr. Borbas for saving us the time and effort in getting these valuable patches to the rest of us, and for proposing a very thoughtful and beneficial idea that all PCjr owners should consider.

### How To Make Borland's Turbo BASIC Run on an IBM PCjr By Lou Davidson

*Below is a patch to make Turbo Basic run on the PCjr. All you need is the debug.com program (supplied with your DOS supplement diskette). It is simple to apply, I now use Turbo Basic with no problems.*

First make a backup copy of your original program diskette. Do not apply this patch to your Master. Copy DEBUG.COM from your DOS diskette to the backup copy of Turbo Basic. Insert the backup copy into your A: and type the following:

```
Rename TB.EXE TB           (Enter)
Debug TB                   (Enter)
F9FAD L7 90                (Enter)
R
```

Note the value in the CS register. Add 1000 hex to this value. (Example: CS:=1AB0 then you should use 2AB0 for the following step.

```
EXXXX:3DCD                (Enter) Where XXXX=value obtained from above!
03                         (Enter)
W                           (Enter)
Q                           (Enter)
Rename TB TB.EXE          (Enter)
```

You should now have a working copy of Turbo Basic for your PCjr. Please note that even though this appears to work, you will get no help from Borland as they do not support Turbo Basic on the PCjr.

October 15, 1987

Ms. Terri Annand  
Microsoft Support Services  
16011 NE 36th Way  
Box 97017  
Redmond, WA 98073-9717

Dear Ms. Annand,

First of all, I would like to commend the Microsoft Corporation for the innovative and extremely productive software that has been produced by your fine company. Microsoft has always been a leader in deciphering the needs of the PC community, and responding accordingly to these needs with effective and timely software. With this philosophy in mind, I was deeply shocked and offended by your company's apparent lack of concern for the computing needs of thousands of PCjr owners (of which I am one) by releasing QuickBasic 3.0 in non-compatible PCjr form. There are currently 500,000 PCjr owners across the country that rely on companies like yours to supply the lifeblood of any computer system - productive software. Though a patch is now available for your program, I feel that Microsoft has shirked its responsibility to this large segment of the personal computing community by not having the program PCjr-compatible in the first place. The technology is there to make any program PCjr-compatible, and we implore you to use your influence to convince your programming decision makers to make your software compatible with our machines, as it had been in the past. Do not ignore us! We know that such decisions are based on economic factors, but it is obvious that 500,000 PCjr owners should and will be a financial factor in the success of any program. We love our computers, and we are extremely loyal to them. Loyalty can be manifested towards software companies as well. We can benefit each other. In closing, thank you for taking the time to read my letter. Please keep the PCjr alive.

Sincerely,

PCjr owner



## PCjr Compatibility List Update

*Here are some more software notes from our readers and subscribers. These will be compiled in the new, revised list shortly. We thank all contributors and encourage others to write us.*

**Ancient Art of War and Hellcat Ace** will run on a basic 128K PCjr. The following is some more programs that I have used (on a 128K Junior): **RAM, By Fire and Sword, Incunabula, 50 Mission Crush, Knights of the Desert, Tigers in the Snow, Crusade in Europe, Amnesia, 9 Princes in Ambor.** The next programs require additional memory to run: **Ancient Art of War at Sea (320K), Universe II (256K and 2 drives), Destroyer (256K), and Eamon (256K and Basica).** My setup is a Junior with: Legacy II 2nd drive, 576K, Jr Video cartridge, Jr Color monitor, IBM Graphics Printer, and two joysticks.

Jonathan Reid  
Biddeford, ME

**Balance of Power** can be run only on a Racore unit with Pcvdma2 and Jrvidma2, sys, etc. installed prior to running setup and each time you play the game.

Richard d'Erizans  
Scarsdale, NY

**Chessmaster 2000** does require 256K (on the Junior). **Framework** will work on a Racore with 640K, DMA, and 2nd disk drive.

Dennis Ciesielski  
Humbird, WI

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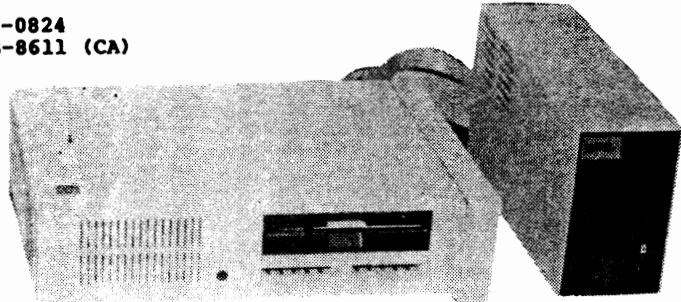
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## Reader's Survey #5 - SHAREWARE

*The shareware concept is undeniably one of the best ideas to grace the world of PCjr computing. Where else can you try out a full version of a program for so little. Even with a registration fee, the cost of the useful program is dramatically less than that of a similar commercial program. This survey attempts to answer to what extent you are using the programs that are available in the library and how we can improve it.*

How many Public Domain or shareware programs do you now own? \_\_\_\_\_

How many Public Domain or shareware programs do you actually use? \_\_\_\_\_

Do you feel that the documentation on diskette is adequate to run a PD program?

Please check one Y \_\_\_\_\_ N \_\_\_\_\_.

What Public Domain or shareware programs do you consider the best?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

What Public Domain or shareware programs do you consider the worse?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

How do you compare Shareware programs to similar commercial programs? Please check one below.

Usually Better \_\_\_\_\_ Usually Worse \_\_\_\_\_ About the same \_\_\_\_\_

Do you think that the shareware concept (try before you buy) is a good idea? Y \_\_\_ N \_\_\_

Have you ever registered a shareware program with the author? Y \_\_\_\_\_ N \_\_\_\_\_

What programs will not work with your particular PCjr hardware configuration?

1. \_\_\_\_\_
2. \_\_\_\_\_

Please describe your PCjr setup. \_\_\_\_\_

\_\_\_\_\_

Please write additional comments on the back of this survey. Thank You.

Additional Comments:

Fold Here

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---

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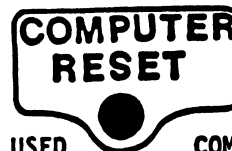
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# Learning To Draw on the PCjr By John Van Dyck

This package of small programs will get you acquainted with one of the great features of BASIC, the DRAW command. Here is how it looks, (DRAW ").

All draw commands start this way. After the (") these are some of the entries you may see :

**BM150,100**

the B says don't draw but M move 150 dots right and 100 dots down. This is called repositioning.

**R3F2E5"**

there can be a very long string of letters and numbers. This is usually a continuation of another DRAW.

**XA\$(A);"**

the X says to DRAW the following as a predefined string A\$(A);

After initial pre-positioning BM150,100 you may find added positioning :

**;BR=C;BD=E;"**

this tells DRAW don't draw (B) but move (R)ight the value of C. Then don't draw (B) but move (D)own the value of E. In a program the C and E values can be changed to position the next DRAW. The complete command

**DRAW "BM150,100;BR=C;BD=E;"**

is entered on a line before other DRAW commands that perform dot movements. The (;) after E tells DRAW there is more to come. Each added DRAW will position next to the last DRAW until you decide to reposition for a new starting dot. Now let's cover all the small commands that appear in a DRAW string

- L5** - draw left 5 dots
- E3** - draw up&right 3 dots
- D10** - draw down 10 dots
- F7** - draw down&right 7 dots
- U6** - draw up 6 dots
- G2** - draw down&left 2 dots
- R3** - draw right 3 dots
- H1** - draw up&right 1 dot

Placing a B before any of the above will position that dot amount but will skip over the dots on the screen and plot nothing. This is a way to reposition inside a draw string. A series of DRAW commands can be added together as we will do to produce a word or a phrase from our font.

**C2** - draw in color number 2

These string commands are the simple ones, but right now these string commands will be everything we need to use the font program. All this will work with Basica and the PCjr Cartridge Basic by Microsoft.

## LITTLE FONT MAKER

Program lines 2 to 150 is a subroutine that contains all the string variables for the capital letters (CAPS), numbers, and a few punctuations. The reason for putting these variables first in the program is that the line numbers match the ASCII code number for the letter it represents. If you wish to see the letter A in string form then LIST 65. Try PRINT CHR\$(65). Program lines 200 to 240 is a small program used to create the font letters. Explanation :

**Line 200** - clear the screen : turn the function keys off : selects a 3 color screen : sets the screen to a 40 wide presentation.

**Line 205** - saves 127 positions for A\$(?) : titles screen

**Line 210** - makes a colored box one dot size larger, vertically and horizontally, than the letter.

**Line 215** - makes A equal to 88, which is X in ASCII

**Line 220** - if someone picks 1 then A will equal 32 (space)

**Line 225** - loads in the memory the all A\$(?) variables

**Line 230** - Draws the selected ASCII (88) in two

*(Continued on next page)*

## Drawing.....

(Continued from previous page)

places one outside the box and one inside.

**Line 235** - will display in the upper left corner :

```
215 A= 88
240 LIST 88
RUN
```

**Line 240** - will list line 88 for examination or change

When the program is just RUN line 1 will start the program at 200. When the display is finished you will be in the command mode of Basic. Use the arrow keys to move the cursor up and over the 88, change both 88s' to 65, press <ENTER> on both lines after each change. You have now changed line 215 and 240. Press <ENTER> on the RUN line and the program will now display the graphic for A (ASCII 65). Notice now that the printing in the upper left shows the changes you made and displays also line 65 which is the string for A. Change something inside the quotes on line 65 and see what happens. Press <ENTER> after your change, then <ENTER> on RUN again. These changes are not permanent until you save the program.

How did it turn out? Examine each little command on line 65 to see if you can trace how the letter was formed. Seeing that the program does not define the lower case letters take a shot at making a small letter A. The ASCII for that is 97 so start a new line TYPE IN :

97 A\$(97)="add your drawing commands" - press ENTER

Cursor up and change the 65s' to 97 - press <ENTER> on on each line change then press <ENTER> on the RUN line. Examine your work. Notice that dots start plotting in the upper left corner, one dot right, one dot down, inside the colored box. When you finish you must pre-position to the upper right corner, one dot down, and two dots right. This supplies the correct spacing for the next letter when the all the DRAW commands are added together. Each letter size is 4 dots wide and 6 dots high. Examine some of the already built graphic letters and notice at the end a B(something) or maybe two B(something) commands are given to pre-position for the next letter. You will have to pre-position, use (B) in the beginning of small letters be-

cause they are shorter.

## CHECKING YOUR SPACING

TYPE IN : RUN 300

Line 300 to 340 is a small program to check for correct spacing and positioning of your created letters. Following is the explanation for this program.

**Line 310** - same as 205 except the title is changed

**Line 320** - B equals the color ;C=B; in the DRAW statement: the DRAW pre-positions the starting dot

**Line 325** - waits for keyboard input (CAPS only for now)

**Line 330** - assigns A as the ASCII number of the input Z\$

**Line 335** - Draws the letter you typed in

**Line 340** - goes back to get another letter.

Type a letter on both sides of your new letter to see if your spacing is correct. If spacing is bad then hit Fn B, this is the way to get out of this little program. Then type in RUN and press <ENTER> and you can make the correction to the spacing.

## A PROGRAM TO PRINT MESSAGES IN FONT

TYPE IN : RUN 400

Line 400 to 460 is a program to use within a program for printing messages on the screen in your special font. If you put this to use in a program remember to enter a RETURN line at end of this program, ie., 465 RETURN. This becomes a sub-routine and then can be used anytime in your program. Next time we will use this routine. The remarks in the listing tell you what is happening and there is no need to enter them in your program. Load up the variables ( A\$(?) ) early in your program and then use a form of this program as a subroutine. Use square paper to plot your letters. Mark a section on the paper four squares

## Drawing.....

(Continued from previous page)

across and six squares high. This is the size of one letter. From the upper left box in your marked section count over seven squares, blacken that seventh square. This blackened square is the spacing. When you finish the graphic letter you must position to the blackened square with the use of B commands. Have fun now.

LISTING PART1 ( this how a 40 wide screen will display lines )

```

1 GOTO 200
2 '
8
A$(8)="BL6C0R4D1L4D1R4D1L4D1R4D1L4U5;C
=B;"
32 A$(32)="BR6"
45 A$(45)="BD2R4BR2BU2"
46 A$(46)="BR1BD4D1R1U1BR3BU4"
48 A$(48)="BD1E1R2F1D3G1L2H1U3E1BR5"
49 A$(49)="BR1BD1E1D5L1R2BR3BU5"
50 A$(50)="BD1E1R2F1G4R4BR2BU5"
51
A$(51)="BD1E1R2F1G1L1R1F1D1G1L2H1BR6B
U4"
52 A$(52)="BR3D5U1R1L4U1E3BR3"
53 A$(53)="R4L4D2R3F1D1G1L2H1BR6BU4"
54
A$(54)="BR3L2G1D3F1R2E1U1H1L2G1BR6BU3
"
55 A$(55)="R4D1G3D1BR5BU5"
56
A$(56)="BR1R2F1G1L2R2F1D1G1L2H1U1E1H1
E1BR5"
57
A$(57)="BD5BR1R2E1U3H1L2G1D1F1R2E1BR2
BU2"
65 A$(65)="D5U5R4D5U2L4BR6BU3"
66 A$(66)="D5R4U3L4R3U2L3BR6"
67 A$(67)="R4D1U1L4D5R4U1BR2BU4"
68 A$(68)="D5R3E1U3H1L3BR6"
69 A$(69)="R4L4D2R3L3D3R4BR2BU5"
70 A$(70)="R4L4D2R3L3D3BR6BU5"
71 A$(71)="R4D1U1L4D5R4U2L2R2D2BR2BU5"
72 A$(72)="D5U3R4D3U5BR2"
73 A$(73)="BR1R2L1D5L1R2BR3BU5"
74 A$(74)="BR2R2L1D5L3U1BR6BU4"
75 A$(75)="D5U3R1F3H3D1E3BR2"
76 A$(76)="D5R4BR2BU5"
77 A$(77)="D5U5F2E2D5BR2BU5"
78 A$(78)="D5U5F4D1U5BR2"

```

```

79 A$(79)="D5R4U5L4BR6"
80 A$(80)="R4D2L4U2D5BR6BU5"
81 A$(81)="R4D5H2F2L4U5BR6"
82 A$(82)="R4D2L4R2F2D1BL4U5BR6"
83 A$(83)="R3L3D2R4D3L4BR6BU5"
84 A$(84)="R4L2D5BR4BU5"
85 A$(85)="D5R4U5BR2"
86 A$(86)="D3F1R2G1E2U3BR2"
87 A$(87)="D5E2U2D2F2U5BR2"
88 A$(88)="F2D1G2E2F2H2U1E2BR2"
89 A$(89)="D3R4D2L3R3U5BR2"
90 A$(90)="R4G2D1G2R4BR2BU5"
150 RETURN

```

<<<<< FONTMAKER >>>>>

```

200 CLS :KEY OFF: SCREEN 1 : WIDTH 40
205 DIM A$(127) : LOCATE 1,16 : PRINT "C
REATING"
210 LINE (150,80)-(156,87),1,BF
215 A= 88
220 IF A=1 THEN A=32
225 GOSUB 2
230 DRAW "BM151,81C2;XA$(A);" :DRAW
"BM1
20,80C3;XA$(A);"
235 PRINT "215 A=";A : PRINT "240 LIST";
A : PRINT "RUN"
240 LIST 88

```

<<<<< SPACE TESTER >>>>>

```

300 'keyboard use of created letters
305 CLS :KEY OFF: SCREEN 1 : WIDTH 40
310 DIM A$(127) : LOCATE 1,14 : PRINT "C
HECK SPACING"
315 GOSUB 2
320 B=2 : DRAW "BM100,80;C=B;"
325 Z$=INKEY$ : IF Z$="" THEN 325
330 A=ASC(Z$)
335 DRAW "XA$(A);"
340 GOTO 325

```

<<<<< SUBPROGRAM ROUTINE >>>>>

```

400 'routine for use in a program
405 CLS :KEY OFF: SCREEN 1 : WIDTH 40

```

(Continued on next page)

## Drawing.....

(Continued from previous page)

410 DIM A\$(127) : LOCATE 1,13 : PRINT "PROGRAM ROUTINE"	455 DRAW "XA\$(A);" 'draw the letter
415 GOSUB 2	460 NEXT Z
420 INPUT "TYPE IN SOMETHING";B\$	465 END
425 C=LEN(B\$) 'how many letters	500 'VARIABLES
430 D=INT((319-(C*6))/2) 'center the input on the screen	505 'A\$(?) is ascii,(?), built letters
435 DRAW "BM0,95;BR=D;" 'starting position	510 'A is the ASCII number (?)
440 FOR Z=1 TO C	515 'B is the color
445 C\$=MID\$(B\$,Z,1) 'get each letter	520 'C is length of message
450 A=ASC(C\$) 'find ASCII	525 'D is number of dots to move right before drawing
	530 'B\$ is the input message
	535 'C\$ is each letter in the message

## 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.

- NOV 1986 - SOLD OUT
- DEC 1986 - Readers' Survey #3 Jr BBS's Fontrix Converting IBM's Expansion Board to 512K
- JAN 1987 - SOLD OUT
- FEB 1987 - PC-Write 2.7 PCjr Clubs DOS Patch 2.1 Basic Programing on the Junior
- MAR 1987 - Art Studio Cassette Cable to Joystick Adapter Inside Your Jr Part I New Jr Products
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- MAY 1987 - IBM Model 30 Hard Drives For Jr Part I NewsMaster Speeding Up Basic Programs
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- JULY 1987 - Hard Drives II Adding Color to DOS Sylvia Porter's Financial Manager Music on the Jr
- AUG 1987 - Updated PCjr Compatibility List Home Banking on Jr Inside the Jr Part IV Dam Busters Review
- SEPT 1987 - PCjr Turbo Boards Jr Diskette Drive Maintenance Corrected DOS 2.1 Patch

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## The Guggenheim Collection

Welcome again to the hallowed halls of our world famous PCjr art collection. This month the Institute is pleased to exhibit the works of Mr. Alan Peters from Cleveland, Ohio. His two works, Ghostbuster and the Cat in the Hat, appear in our Robin Leach Memorial Wing below. Though these two pieces originally made their debut in color, we regret we can only reproduce them in black and white. Mr. Peters created the work with the IBM PCjr ColorPaint software program and printed it on a Brother M-1109 Printer.

### THE CAT IN THE HAT



## How To Keep Your RAM Disk And Still Go Into BASIC

By John Knox  
The OK JUG, Oklahoma City, OK

The main problem was if you had a PCjr with any memory expansion and tried to set up a ramdisk over 120K, and then tried to go into BASIC, you would get the message: "Out of memory". Well, we have finally found a solution.

The reason for the problem is that the BASIC on the PCjr cartridge is a program which must load in only one certain place in Junior's memory. This is a non-virtual memory program.

To fix the problem, you must use the BASIC on the DOS 2.1 diskette you received with your computer. This is a virtual memory program and will load anywhere in memory. The first thing you need to do is make sure the BASIC and BASICA programs are on your diskette. Then, since this is not your only copy of DOS (at least, you should be using a backup copy), all you need to do is rename the BASIC.COM file to JRBASIC.COM with the RENAME command. Then, rename the BASICA.COM file to JRBASICA.COM. And that's all there is to it. Now, whenever you want to use BASIC and a ramdisk, all you have to do is make sure the JRBASIC.COM or the JRBASICA.COM file is on the diskette in the default disk drive and then at the DOS A> prompt, type in one of the following two lines:

```
JRBASIC  
JRBASICA
```

Now, you will be using IBM Personal Computer BASIC instead of IBM PCjr BASIC. There are a few differences, however. One of the first I noticed is the DRAW command doesn't work. I had a program that used this and nothing was drawn on the screen.

Another difference is that when you normally use the PCjr BASIC cartridge, you are really in BASICA whether you started with BASIC or BASICA. This is because the PCjr BASIC is a much more powerful interpreter than the IBM Personal Computer BASIC on the DOS disk. So, whenever you use this BASIC fix as described, you are advised to just use the JRBASICA command as it has all of the options of the PC BASIC. Otherwise, if you only used JRBASIC, you might quite often get the message "Advance feature".

This is not a complete fix to the BASIC and ramdisk problem, but it will let you use many BASIC programs and still have a ramdisk. There are a few more functions which don't work quite the same as PCjr BASIC, but for now, this will get you going with the ramdisk.

## New Shareware

By D. Glanville

*We have four great new programs this month for our subscribers, and they appear on page 25 of this issue. We know you'll enjoy them. There are two points that I would like you to keep in mind: 1) A lot of Public Domain and shareware programs require BASIC, so have your cartridge handy or kept in the front slot, and 2) please fill out the survey on page 15 - it'll help us re-evaluate the kinds and quality of software that we have been offering and allow us to serve you better. Happy computing!*

### 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.

*(Continued on page 25)*

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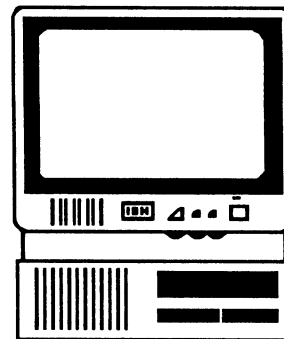
"Upon this rock"...Matt. 16:18

**MOVING?**

Make sure you let us know way ahead of time of your next move, so that you don't miss any of the breathtaking 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.



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The perfect gift for the PCjr owner. Give 12 months of **The Junior Report**. If you know someone who loves his PCjr as much as you do - the best way to extend your holiday wishes is with a gift subscription to **The Junior Report**. Your friend or relative will gain a year's worth of insights, reviews, and reports of the PCjr world. It's a PCjr survival kit for just \$18. a year. They'll love you for it.

And it's easy to do: just fill out the form to the right and mail it to **The PCjr Club, Gift Subscriptions, P.O. Box 59067, Schaumburg, IL 60159-0067**. We'll also send you attractive cards announcing your gift for you to send to your friends. Remember: It's 12 presents in one!



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## New Shareware

(Continued from page 23)

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 November 30, 1987.

### **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.

### **THE GOLDEN WOMBAT of DESTINY (#91):**

One of the better all text adventure games in our library. Your quest is to discover the Forbidden City of the Great Lost Empire and unearth the mysteries it contains. Has wit, humor,

styling and a good sized vocabulary, that can handle full sentence commands, much in the same way as the major commercial programs. Try it you'll like it.

### **MATH TUTOR (#92):**

This elementary grade level tutorial supplies age-graded exercises and tests for a variable student body, and can be redesigned for special problems. It is a fun and easy way to teach math to younger children. For grades 1-6. BASIC required.

### **MOONBEAM (#93):**

For the astronomer or romantic, this program determines the phase, position, and illumination of the moon. Can also plot star data as well. It's not only educational, but just plain fun to play with. See what the night sky looked like on the date of your birth!

### **FOOTBALL POOL MANAGER (94):**

This is one of our favorites, because 1)it is a well-written program that makes football pool activities infinitely easier, and 2)it is written by fellow PCjr owner and loyalist Andy Kunz. This software program performs all of the tedious work that is involved with running a football pool such as generating the weekly pick sheets (+ and - odds), summary spreadsheets showing everyone's picks, and standings reports, among others. This has good documentation.

# 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.**

---

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.

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**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. **2 Disks - \$9.00.**

**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. Marooned is a text-based adventure game on an alien planet.

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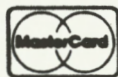
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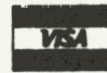
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