

The Junior Report®

p. 3 DOS 2.1 Command Shortcuts
p. 4 Software Compatibility
p. 8 3.5" Drive
p. 12 Jr Color Video Display
p. 18 Touchdown Football Software
p. 24 PrintShop Software



August 1988 Volume 4 Number 8

The National Newsletter for PCjr Owners

To Sell Or Not To Sell; Is That The Question?

Plucking a nice, new hundred dollar bill from someone's wallet may sound nice, but is it really time to trade-in your Junior and get one of those new computers that you've been reading about?

It's been over three years now since IBM pulled the plug on the Junior and now some of you have thought seriously about selling or trading the PCjr for a super-charged PC XT or even an AT clone.



Contents

<i>To Sell or Not To Sell Your PCjr</i>	1
<i>Tips and Shortcuts</i>	3
<i>Letters</i>	4
<i>3.5 Inch Drive for Jr</i>	8
<i>Looking At Jr's Video Display - Part I</i>	12
<i>FIXQCjr</i>	16
<i>PCjr Reprint Article</i>	18
<i>The PrintShop and PrintShop Companion on the PCjr</i>	24
<i>Classified Section</i>	26
<i>Eye on Shareware</i>	28

The allure of a brand new system is a temptation that many of us cannot resist. So what is a PCjr owner to do when he is beset by clone ads left and right? To sell or not to sell, that IS the question. Though admittedly we are partial to the PCjr, evidence and not our bias does suggest that keeping the PCjr is sound advice.

The main reason is purely economical. Checking into the resale or trade-in value of the PCjr would reveal that you would NEVER get what a PCjr is really worth if you were to sell or trade-in your computer.

For example, if you were to sell your PCjr with color monitor outright, you may get enough money to buy a regular PC color monitor (non-EGA) minus the rest of the PC system. If you trade in your PCjr CPU and PCjr color monitor in the new IBM trade-in program you'll get a whopping \$160! Now we know everyone is in a different economic situation, but if the \$160. is important, why not keep your PCjr (a computer that with enough memory can run at least 95% of all PC software) and borrow the hundred and sixty dollars

(Continued on page 11)



By Harrison Day

A new printer port, adapter cables, and a goodbye to summer

The first item in this month's column is the announcement of a new PCjr product, which is news in itself. Many of you have found a simple parallel port for the PCjr hard to find, harder to purchase. Well, ES Quality Products at 767-B Redwood Place, Reno, NV 89502, (702) 786-4040, has produced a new parallel port for the jr. Like the original IBM PCjr parallel port, this attaches to the outside right of the PCjr CPU. The unit retails for under \$50. but please check with ES Quality Products before purchasing.

Another hard-to-find item for PCjr lovers lately has been the Racore PC keyboard adapter cable that allows you to connect most PC keyboards to the PCjr. Racore has stopped production of their unit, but Paul Rau has received about fifty of them for sale to PCjr owners on a first-come, first-serve basis. A price for them has not yet been established, but you can call Paul Rau Consulting at (209) 745-9284 for availability and cost information.

Last month we discussed the closing of Solid Rock Electronics, a major supplier of PCjr products. Unfortunately, we gave their address as located in Garland, Texas. That was a major blunder since Solid Rock was in Arlington, Texas, and not Garland. Garland is the home of Computer Re-

Set, which is doing quite well, thank you.

Our cover article this month deals with the possibility that some of you might have the crazy idea of trading or selling your PCjr's. Well, our point in that article should be clear - DON'T DO IT! Keep the little fella, you'll find that you'll need him. Now how about a story about getting more PCjr's. Every so often we receive a story about where one can purchase more Juniors for those of the faithful who have discovered the potential of the PCjr. It's not quite official yet, but we have learned that a party in Marietta, Georgia is about to offer the original PCjr CPU in original, unopened IBM packaging, to interested buyers for about \$150. apiece. Included will be the original chicklet keyboard (great for a paperweight), but does not include a monitor or accessory cables. They are all 128K units. At that price, we think a unit is definitely worth purchasing just for the sake of backup in the unlikely event that your original unit may go down. Look for an announcement in the next issue. I think our office will purchase about five of these units. (We like them.)

The current trend in computer magazines is a magazine for the middle-of-roader - the computer person who is beyond learning simple DOS commands, but thinks memory addresses are the girlfriends' homes not recorded on paper. *PC Resource* was one of the first in this new wave, and now comes *PC Computing*

from the makers of *PC World* magazine. Since the PCjr is 90% PC compatible anyway, most owners will benefit from the purchase of any of these fine magazines.

More than once we have praised Egghead Software stores for providing software at a great discount to Junior owners, but more importantly, for providing the best return policy for software that might disappoint you. The good news for the PCjr is that the field is getting real crowded as more and more companies see big bucks with the discount software market. Look for some BIG, new software discount stores to open near you soon, much to Egghead's chagrin.

And finally, we offer a fond goodbye to summer as August draws near to a close. We haven't had an ideal summer, with moving problems and new personnel, but as winter approaches, we're gearing our Juniors for a productive winter. We do remember, however, this year's annual Taste of Chicago festival where hundreds of the city's restaurants get an opportunity to make big bucks on a feeding frenzy of hungry Chicagoans and out-of-towners. Though the food was great, as your tummy got bigger and bigger, your wallet got thinner and thinner - but a lot faster. As that great PCjr statesman once said about this festival, "Never have so many, paid so much, for so little."

The Junior Report

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Tips And Shortcuts With DOS 2.1

By Ed Jackson of The San Francisco PCjr UG

This article is taken from the Users Group Newsletter of The San Francisco Users Group which can be contacted at Box 20, 2336 Market St, San Francisco, CA 94114.

Keyboard Clicker

The clicking sound as each key is pressed is toggled on and off by pressing and holding Cntrl and Alt while pressing Caps Lock. Reference: Guide to Operations, page 3-26.

Asterisk

For those for whom finding the asterisk key (*) is not automatic, a convenient way to type an asterisk is to hold the **Alt** key down while pressing the **period** key. I find this especially handy in typing *.* , for example. I picked this up in a newsletter some time ago. (Does anyone know where to find the documentation for this? There might be other shortcuts documented in the same place.)

Editing DOS 2.1 Commands

Since I am one who frequently types commands incorrectly, I find shortcut ways to edit and re-enter DOS commands very useful. How useful depends in each case on how long or complicated the command is. Use of these keys is described with examples in the DOS 2.10 manual, pages F-2 through F-14. The commands are also listed on the DOS quick reference card that came with my manual.

Some of our club members use utility programs such as NDOSEDIT or DOSREM (both in the club library) to edit commands. I have not yet learned to use them, so the following shortcuts to avoid retyping complete commands are helpful to me:

First, if you have hit enter after typing a command and get an error message, you can **copy the command** at the new A> prompt either **one letter at a time using the right arrow (-->)** or **all at once using Fn3**. In either case you can use the **Insert and Delete keys** to edit the copied command before hitting Enter. For example, if you have left out the drive designation, copy up to where the drive letter should be inserted, hit Insert, type the drive letter and colon, and hit insert again. Then copy the rest of the command either by hitting Fn3 and Enter or by holding --> down to the end of the command and then hitting Enter.

Second, if you have typed all or part of a command and notice an error before hitting Enter, you may edit this command in the same way by hitting Fn5. DOS will place an @ at the end of your typing and move the cursor to the next line. You can then edit with -->, Del, Ins, and Fn3 as described above.

One new (for me) function that I found in researching this article is using Escape to cancel a complete line that has been typed but not entered. As explained by Van Wolverton in <U>Running MS-DOS<N>, page 30, "DOS displays a reverse slash (\) to indicate that the line was canceled, and moves the cursor to the beginning of the next line." While the prompt is not repeated, the cursor shows DOS is ready for you to type a command.

Fn2 and Fn4 are the remaining DOS editing keys. Fn2 copies all characters up to a specified character, while Fn4 skips all characters to a specified character of the line you are copying. These two have not appeared useful enough for me to learn to use them, but you can find examples for using them in the DOS 2.1 manual, Appendix F.



By Dolores Jack

Thank you for your letters and comments. We're sincerely sorry that we are not able to answer all letters personally, but will attempt to cover as many questions and topics as possible in this column. All letters become the property of The PCjr Club and are subject to editing for length and clarity.

This month we are printing letters from those PCjr owners who have submitted helpful hints and suggestions that will make life more bearable for the rest of us PCjr users. We thank all of them and hope these letters improve your productivity and enjoyment on the Junior.

OKIMATE 20 PCjr COLOR PRINTER DRIVER

This letter is in response to Ralph Delperdang's letter as published in the June/July edition of The Junior Report, Letters section.

One of the questions Ralph posed was about a printer driver to link his Okimate 20 color printer to IBM PCjr ColorPaint. One answer is this. The same company that wrote the software that is sold with the Okimate 20 will sell you the full version. It is the ColorScreenPrint program from:

Application Techniques, Inc.
10 Lomar Park Drive
Pepperell, MA 01463
(617) 433-5201

ColorScreenPrint's documentation includes instructions on how to capture an image created with IBM PCjr ColorPaint. The flexibility of this program is great. Colors can be changed, image size manipulated and even printed sideways.

Two words of caution; the program uses about 48K of memory and you must buy ColorScreenPrint not Pizzaz which does not support the PCjr-Okimate 20 combination.

Sincerely
Jack Anderson
Seattle, WA

MORE PCjr COMPATIBLE SOFTWARE

I am writing about 14 programs that will work on the enhanced IBM PCjr and here's the list:

- #1 The Great Escape - 128K.
- #2 Songwriter - 128K.
- #3 Pro Golf - 128K.
- #4 Top Gun - 128K.
- #5 Five-A-Side Soccer 128K.
- #6 Pac-Man - 128K.
- #7 Wiz Ball 256K DOS 3.10 or 3.20
- #8 Blockbusters - 256K.
- #9 Family Feud - 256K.
- #10 Jeopardy - 256K.
- #11 Wheel of Fortune - 256K.
- #12 Ye Old Course a Scottish golf tradition - 128K.
- #13 Starquake - 256K.
- #14 Leisure Suit Larry in the Land of the Lounge Lizards - 256K.

Eric Allison
San Diego, CA.

PRODIGY PROJECT

I want to comment on something you wrote in your column in the May 15 issue (Volume 4, Number 5).

What I wanted to bring to your attention is that Prodigy, the new service from Trintex Corporation, isn't for the PCjr- at least, not yet. As you may know, Atlanta is one of the test markets for the service, and members of the Atlanta IBM PC Users Group were selected as one of the test groups for the initial offering. I signed up for it immediately when I heard about it in February or April, but was never contacted by Trintex. Other members received their starter kits and began to test the offering, but I never got anything. When I called Customer Service, I was told in the nicest possible way that the PCjr was not supported at that time, but they were working on the problem and expected to have the Junior version in about a month. That was at the end of April, and you guessed it - not a peep from Trintex since then. I've called three times and cornered their local liaison man once in the interval, but the story is still the same: they're "working on it" and expect the software anytime now. Sounds like vaporware to me.

I'm not really mad at Trintex (and through them, IBM, Sears, et al.), because I recognize that they have a couple of million things to do in setting up a venture as large-scale as this promises to be. I do understand

that Junior presents some unique programming aspects and that it's a bit of a dead-end street. I also realize, even if they don't, that PCjr owners/users are exactly the target that Prodigy is designed to reach. I can't for the life of me figure out why they spend so much time getting EGA compatibility and so little in reaching the installed base of PCjr families that we know is there. I'd like for you to kind of lean on them, if you would, to see if they can be stimulated. I'm afraid I don't have their address, but their Customer Service number is (800) 759-8000. I wouldn't be surprised if someone in the Greater Chicago area there doesn't have connections at Sears that might prove to be of some help, too.

I'm sending along a diskette containing a communications program written on and specifically for the PCjr by a local programmer, Allen Ueckert. It's a pretty nice little effort that may merit inclusion in your library since it runs very well on a 128-KB "plain vanilla" PCjr even with the iniquitous IBM Internal Modem. If you'll have your folks evaluate it, I'm sure Allen will accept whatever disposition they make of it. If you need to talk or correspond with anyone, contact Allen directly at the address noted in the documentation. I'm really not his agent, and in fact he may have forgotten that I told him a couple of months ago I would like to do this. I just think it's a good program that meets a need and I hope you do too.

I received my Reminder today, and the renewal is also enclosed. I don't know who came up with it, but it has to be the cleverest, most original, and in my case most effective such reminder I've ever seen. Please tell the perpetrator(s) I wish there

were more like them. The world could certainly use some originality and creativity in renewal reminders

Finally, while I'm handing out kudos, let me say I enjoy THE JUNIOR REPORT immensely. It's really nice to read something about a PCjr rather than a PS/2 Model 80 with a laser printer and a 9600-baud modem. I have a single-floppy Junior with a bunch of goodies (Nickel Express Board, 20-meg Hard Drive, jrHotshot memory to 640K), so my system is really pretty comparable to most. The minute I say "PCjr", though, I get the old patronizing suggestion that I junk it and get a REAL computer. Your publication lets me know that there are others and I appreciate it. Thanks. Besides, as a fledgling newsletter/editor/publisher/reporter (THE ORPHAN PEANUT, from the Atlanta PCjrUG), I get a lot of tips and ideas on layout and organization from your pages. Thanks for that, too.

I know this has gone on much too long, so I'll end it. Thank you for your time and keep the faith.

David G. Wilson
Atlanta, GA.

Thanks for the letter and added information on this possible great telecommunications service for PCjr owners across the country. We called Prodigy and talked to their Public Relations Office which of course provided the same information - "They're working on it, and hope to have it completed shortly." However, they did seem quite surprised to hear of a PCjr-specific magazine and said that the software is not vaporware. Let's

hope not. Until it's completed, all PCjr owners, whether you participate in modems and telecommunications or not, should write to the address below to voice your strong complaint about the apparent lack of progress in developing a PCjr-compatible program for Prodigy.

The address is

*Brian Ek/Public Relations
445 Hamilton Ave.
White Plains, NY 10601*

It is important for all PCjr owners to get out the pen and pencil for this one - it's a great place to be recognized and the services that Prodigy hopes to deliver is quite impressive.

We have sent the shareware program to our shareware department and I'm sure it'll be reviewed and made available soon for the rest of us. Thanks for including it in your correspondence.

The Atlanta area must have a lot of PCjr owners out there who might be very interested in joining your PCjr SIG, so I hope you don't mind if we reveal your mailing address for those who wish to join. David G. Wilson, 6575 Amberglades Lane, Atlanta, GA 30328. Again thanks to you and the others who have found the time to help your fellow Juniorites.

POWER PCjr COMPUTING

You and your readers seem to have an insatiable appetite for information on program compatibility so, since I've benefited from my passive readership for so long, I thought I'd contribute my two bytes worth and discharge a moral obligation to my fellow orphan owners.

Although I long for a PS/2 -50 system (VGA is a blessing), I can neither justify nor afford such a ma-

chine at home, so for the while I'll remain loyal to my 512K, Racore enhanced, dual drive jr. Addition of the NEC V-20, Keyboard Buffer and jrVideo cartridges from PC Enterprises combined with bypassing, when possible, the first slooow 128K enable me to get acceptable response speed from my mini-mite jr. The Mouse Systems optical mouse, a high end CH joy stick and HP's Thinkjet printer complete the picture.

I do a lot of number crunching at home and, for me, nothing beats Symphony (I use V 1.2) or 1-2-3. There is a lot of aftermarket documentation and auxiliary software written for these programs which greatly enhances their utility. Two good examples of the software are Sideways, which enables font enhanced, sideways printing of spreadsheets, and See More which modifies jr's CGA display to show more of the spreadsheet than the normal 80x25 character matrix. This can easily allow one to view a whole year's data on screen at once, something that is frequently difficult with a standard 80x25 screen. In these days of powerful, multidisk software a major benefit for me is the compact nature of Symphony with its many modules on one main disk. I put the help file on my primary data disk and then offload worksheet files as I finish with them. Additional benefits include Symphony's minimal recalculation capability which minimizes jr's disadvantages in the speed department and it's ability to use more than 640 K which may allow jr owners with memory in excess of 640 to work with quite large spreadsheets. I've never been able to get Symphony to run reliably under DOS 2.1, patched or not. I use DOS 3.1 or 3.3 and suffer the available memory loss due to increased DOS

size.

A program I find very useful is Harvard Graphics, a presentation graphics program. It produces excellent quality output on low end dot matrix printers and has capabilities that far exceed most user's needs for intermediate level charts and graphs. The program does too much to try and describe -- go browse through the documentation and be amazed. Performance on the jr is snappy and satisfying, especially the 16 color slide show presentations you can do on screen if you wish. The custom fades and segues are right out of Hollywood! Suffice it to say that this pro-

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relational.*

gram runs on jr with but a few compromises (there is not room to hold all the art and symbol files at once on a dual 360K floppy machine) and no other graphics program is likely to wring out as much high quality output from your hardware. It has drivers for printers, plotters and slide making hardware; and, it will very easily queue your files for sequential printing. Bonus: it's easy to use without spending much time in the documentation. Again, I've not been able to run this program under DOS 2.1 (it can't remember which overlay files are on which disk) but it runs smoothly under 3.1.

All of us probably have favorite housekeeping programs but I encourage you to look at PCTools Deluxe. It easily out does DOS, includes a little editor so you don't have to COPY CON or use sidekick to create or modify batch files and includes safety and recovery tools that are a lot easier to decode and use than Norton's stuff. It works within and between sub-directories and, plus, in 16 colors it looks great on screen.

Want a data base that is genuinely easy and fast to learn yet almost as powerful as dBase? Try Q&A. Fast, forgiving, flexible, networks, programmable, does math and is semi-relational. The AI based intelligent assistant module will interrogate your data base for you, in English, if you don't want to create your own reports - it really works, I use it a lot for casual queries of my recorded music data base. (This impresses even the resident office Power Users.) In the office we use it to support a 2000 client telemarketing data base, an application I developed at home and transplanted to the XT's & PS/2's at work.

You may even find yourself tempted by Q&A's integral word processor module. Moderately full featured, it's attraction for light WP users is legend due to its simple interface and well executed on-line help scheme. It also makes the most of whatever printer you have and does so in a most painless fashion that will make you loath to leave its cozy caring command structure.

Michael Larime
Dexter, MI

Thanks Michael for reminding us just how powerful and productive the PCjr really is. It is a "real" computer in every sense of the word.

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TO: _____

TO: _____

FROM: _____

Rediscovering the Jr With a 3.5" Disk Drive

Keeping the PCjr current with the new technology is a problem that faces all PCjr owners. It's not that we do not enjoy our computers, or that we are not productive with them; it's just that it is encouraging to see that the jr doesn't have to lag behind in some of the newer trends in PC computing. A turbo board increases Junior's clock speed, an EMS upgrade allows the PCjr to enjoy expanded memory, and in this review, a 3.5 inch disk drive allows the PCjr to converse with the new IBM series of computers utilizing 3.5 inch, 720K disks.

The 3.5 inch drive that will be reviewed in this issue is produced and marketed by Paul Rau Consulting, a PCjr product supplier located in Galt, California. It is not the first 3.5 inch drive that we have reviewed (see The Junior Report March 1988). Those who have read that issue, remember that the Astro Technologies drive that we tested then received lukewarm re-

**If the new 3.5 inch
floppy disk drives
are the future, bring
old Junior out of the
dark ages with this
external drive from
Paul Rau Consulting**

views mostly due to a horrendous manual and documentation.

It functioned well, but our enthusiasm was dampened considerably by our experience with installing the unit. We were hoping as the Paul Rau unit was received for testing that we would not have to experience the same aggravation as with the first unit that we tested in March.

We were not disappointed.

The review unit came packaged securely and carefully with plenty of packing "peanuts" and

styrofoam. The box contained one 3.5 disk drive with its own power supply and fan in one long unit (5 inches/3inch/12inches. The drive and its casing weighed approximately 5 pounds, quite a bit larger than the Astro Technologies drive.

From a purely esthetic standpoint, the Paul Rau drive was not as attractive as the Astro Technologies drive due to the size of the Rau unit. This is due in large part to the fact that Astro Technologies chose to package its unit's power supply separately from the drive itself via a power supply brick similar to Junior's own power brick. The fan included in the Rau drive (not included in the Astro Tech's unit) also added more size and weight to the disk drive. It must be stated, however, that when we finally installed the unit, the size of the drive seemed insignificant compared to the over-all quality of the product. Another minor complaint was that the finish on the casing of the Paul Rau also seemed less than perfect, exhi-

BY DENNIS ROME

biting minor pitting and bumps. Again, we do not feel that this criticism should discourage you from considering to purchase the unit.

Also included in the package was a fully populated jrHotShot PCjr internal memory expansion board that would later serve as the drive's connection to the PCjr CPU. This is an option - the regular unit comes with OKmemory chips as did the Astro Technologies unit. For demonstration purposes only, our Paul Rau review unit also came with two versions of DOS (2.1 and 3.3) with the drivers for the jrHotShot memory expansion and the recognition of the new drive already installed to illustrate the compatibility with DOS 2.1 and up. Normally, you would install the jrHotshot and external drive utility software onto a copy of your own DOS disk. Of course, the right cables were included along with the installation manual. Unfortunately we did not receive the disk drive's manual in the package, but we were old pros at this particular installation because of our experience with the Astro's unit that used the same jrHotShot board. A call to Paul Rau revealed that the instructions for connecting the drive were inadvertently left out and that they would send it to us right away. We asked if this was a common occurrence, and they informed us that it was not. With that problem taken care of, we proceeded to the hardware installation.

The hardware installation was a breeze. The installation instructions included with this drive was much better than those included with the Astro drive. Though both used the jrHotShot basic in-

structions and pictures, the Rau unit had documentation that was much more readable, and more importantly, the pages were numbered and in the correct order.

We started to install the disk drive and cables at 10:30AM and finished the hardware portion of the installation at 11:22AM, or in other words, it took less than an hour to make our PCjr "3.5 inch compatible". Though we have some expertise in the PCjr technical field, the ones that actually installed the drive were not one of our technicians. Though the time involved seemed minimal, the procedure itself still took a very careful eye and a very steady hand as you shall read later. Because of the fact that both 3.5 inch drives that we have tested relied on the jrHotShot memory expansion board as the major part of their respected hardware systems, we were already prepared somewhat to the care that must be taken to install this drive and/or the jrHotShot board. The board itself must sit in the slot now occupied by the PCjr's 8088 microprocessing chip. The location of the chip is found on the motherboard directly below jr's internal disk drive. In most PCjr's, this microprocessing chip is UNSOLDERED meaning that it sits in a socket. In a few jr's, the chip is soldered to the board, so that removal of it becomes quite tricky, and best be left to a trained technician. After carefully removing the 40 pin 8088 chip, we carefully inserted the same chip into a socket on the jrHotShot board. This board, in turn, had pins on the underside that would be placed in the 8088 microprocessing socket on the mother board. This procedure proved to be the most difficult be-

The hardware installation was a breeze.

The installation instructions included with this drive was much better than those included with the Astro drive.

cause one does not get a very good view of the socket or the underside of the jrHotShot board (see March 15, 1988 issue). One must practically peer through the empty disk drive to align the pins into the socket. But we did, and after the jrHotShot board was installed and flush to the motherboard, we checked the cables, and replaced the PCjr disk drive back into its original position. We then tested the board to make sure that it was parallel to the motherboard.

The next step is to replace jr's floppy drive controller cable with one that comes with the 3.5 inch drive that connects the following:

- 1.The PCjr floppy drive controller card
- 2.Jr's internal drive
- 3.The external 3.5 inch drive
- 4.The jrHotShot board.

When these connections are made (it sounds a lot harder than it really is), you then replace the PCjr CPU cover and voila, you have a 640K PCjr with an external 3.5 inch drive.

Software installation was per-

formed just as easily by copying the file 35SYS from the accompanying jrHotshot software disk onto your current DOS disk and creating a new CONFIG.SYS file. When configured in a new config.sys file, the PCjr will boot automatically recognizing any extra memory and the external drive, which is designated as Drive C:. Remember to turn on the external drive by flipping the switch on the back of the unit before you turn on the PCjr CPU unit.

The performance of the drive proved to be very good. It ran quietly and smoothly.

We were able to format a new 3.5 inch disk with one of the utilities included in the software (FORMAT35). This automatically formatted the new, smaller disks at 720K, twice the storage capacity of the old 5.25 inch, 360K standard floppies. We had no trouble in transferring non-copy protected programs from our A: 5.25 inch drive to the new external 3.5 inch drive. For example, we were able to copy the entire WordPerfect 4.2 program, which normally takes up 360K, AND its spell checker onto one 3.5 inch diskette. This really cut down on the disk swapping. It was also quite nice to have a 720K data disk. For those applications that need a B: drive, we used the DOS command ASSIGN B=C to make the computer refer all commands to B: to our new external drive C:

Whether you currently have two 5.25 inch floppies or a hard drive already, the software included will assign and recognize the new 3.5 inch drive automatically.

As previously stated, we were able to run the WordPerfect 4.2 word processing program from the 3.5 inch drive. We also test-

ed the financial program Quicken, the entertainment software package Leisure Suit Larry in the Land of the Lounge Lizards in the smaller format in the external drive. All the programs worked flawlessly, and we even noticed that the programs loaded a bit faster due to the rigid nature of the 3.5 inch diskettes. On a Professional File data file search, the Paul Rau drive performed as well as our Toshiba 3.5 inch drive in our IBM AT, and was found to be about 5% faster than the Astro Technologies 3.5 inch drive.

The Paul Rau 3.5 inch disk drive is a very good way to improve the productivity of the PCjr. We rate it as a very good

value. As more and more computers adopt the smaller, more rigid, and better protected 3.5 inch diskettes, the PCjr owner who has invested in these newer drives will find that he has not only spent his money well for the present computing potential of his PCjr, but has invested wisely for the future as well.

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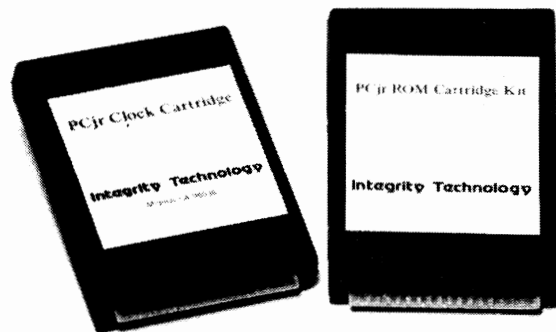
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To Sell or Not To Sell...

(Continued from page 1)

from your twelve-year old kid? Or from another viewpoint, would you pay \$160. for a color PC system that could run Lotus 1-2-3, WordPerfect, Flight Simulator, and King's Quest in 16 glorious colors? Most likely your answer will be yes, which provides good reason to keep your Junior right where it is - on your computer hutch. The PCjr will satisfy the computing needs of 80% of you out there, so there is no need for "upgrading" for most of you, and many of you already know the capability of this computer. The PCjr was worth every penny of the cost most of you paid for it initially, and it certainly deserves to stay in your family, ever ready to surprise you with even more capabilities.

But reality suggests that some of you do indeed need a computer with EGA capability or a computer that can blast your neighbor's socks off with a 20 Megahertz rocket engine. If you are in that category, go ahead and buy that super machine, but again don't sell your Junior. You'll be surprised how often you'll end up booting up your Junior rather than your AT clone. The Junior has been a faithful friend for years, and will remain an able computing companion for many more years to come. If you are the kind that requires something new and exciting, try adding to the potential of the PCjr. Whether the PCjr is your prime computer or "backup", how about adding a 3.5 inch drive to your Junior? This would be an easy way of transferring data

between the old 5.25" and 3.5" formats of the newer computers (including laptops) and at the same time giving you second drive capabilities on the PCjr. Or how placing the PCjr right in your kids' room so that they can hone their word processing skills on it so they can get a headstart on learning how to write home for more money? These are just two reasons not to sell the PCjr even if you were to purchase a new computer. There are many more. The next time you format a disk, use PrintShop to create a greeting card, balance your checkbook, or split the Twin Towers in your Flight Simulator, remember how valuable and fun your Junior has

been and how much potential it has for the future.

Owning a PCjr sometimes "ain't" easy, but heck, most of us got our feet wet in the computer pool using this great little machine. But when that great temptation to sell rears its ugly head, go into the next room and count to ten before you do anything, and do something sane like passing the jr onto some deserving relative, but don't sell or trade it. Remember, having a PCjr isn't just owning a computer - it's a lifestyle. We're survivors. So when that salesman wants your jr in trade, or the urge comes upon you to sell it to a friend, do what we do here at the office. Just say NO.

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, 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.

Looking At Jr's Video Display

This is the first of three articles about the display system of the IBM PCjr

We all spend a lot of time looking at the video display of our PC Juniors, so let's take a close look at the entire video display system. In this first of three articles, we will look at just the hardware. We will see how the display works; we will look at pixels and learn about resolution; and we will describe the special components that Junior uses in the video system. In the next article we will look at the text video modes and in the last article we will cover Junior's graphics modes. You will learn that your IBM PCjr has video display capabilities exceeding its contemporaries in the PC family and you will learn how you can take advantage of some of these capabilities.

Junior has output connections for three different displays. One, marked "D" is for a Red-Green-Blue (RGB) monitor; another, marked "V", is for a composite monitor and the third connection, marked "T", is for using a TV set as display. All of the displays that

Junior can use are the same basic device, a raster-scan Cathode Ray Tube (CRT). Inside the CRT a narrow beam of electrons is shot from one or more "guns" against the front of the tube where it causes a phosphorus coating to momentarily glow. This beam of electrons, the raster-scan, moves very quickly from left to right and from top to bottom. Only a very small fraction of a second is required to completely scan the screen and since the phosphorus begins to fade quickly, the scanning process is repeated over and over.

You can see that although your screen appears to be a passive device there is actually a lot of carefully controlled activity within it. Even when you only see the DOS prompt on a black screen, the electron beam guns are still scanning the entire screen and being turned on and off to form the familiar image of `A>`. This beloved image is formed in seven scan lines.

In the first scan line the electron beam is quickly turned on and off to make the tip of the A and is turned on and off again to make the very top to the arrow. In the second scan line the beam is turned on slightly sooner and left on longer for the A, since it is a little fatter, and the beam to make the arrow is delayed slightly to form the slanted line. This process continues until the entire DOS prompt is formed and it is repeated many times every second to keep it on the screen.

The CRT is responsible for the electron beam scanning process but the computer must supply signals to the CRT so that the beam is turned on and off at the proper time in order to display the desired image. The computer doesn't use the entire screen (like your television set does).

It displays the images within a rectangular area in the center of the CRT. The area which frames the working area is sometimes called the "overscan" but usually we just refer to it as the "border".

Monochrome displays have a solid coating of phosphorus while a color screen has the tube face composed

BY JOHN WILSON

of red, green and blue phosphor dots. If you turn on your IBM PCjr Color Display, but leave the computer off, and look at the screen with a magnifying glass you will see that the screen is composed of many small vertical lines which alternate red, green and blue in color and there are thin horizontal black lines across each band of red, green, and blue stripes. They look like tiny bright colored threads with small black wires woven in at right angles. The IBM PCjr Color Display is a RGB monitor. This means that in addition to three colors of phosphorus, there is a separate electron beam gun for each of the the three colors. Each of the other five colors that Junior is able to produce are made from a combination of these three basic colors. Magenta, for instance, is a combination of red and blue. White is a combination of all three colors and black spaces are made when none of the guns are turned on. The IBM PCjr RGB Display also is able to control the intensity, or brightness, of the colors, which in effect doubles the number of colors capable of being displayed. Red becomes pink, brown becomes yellow, etc.

Composite displays, which are popular because they give good quality output at low cost, have the three colors combined into a single gun. There are a few color composite displays but most of them are green or amber and black. These monochrome composite monitors are sometimes confused with direct drive monochrome monitors. They are both monochrome (one color plus black), but the direct drive monochrome monitors have more scan lines than composite monitors and will not work with the video system in Junior. Direct drive monochrome monitors were originally designed to perform only text work and they produce very sharp, clear characters.

It is possible to permanently imprint, or burn on, a pattern on the screen of both monochrome composite monitors and direct drive monochrome monitors. On both of these types of monitors you must avoid setting the controls for excessively bright displays and leaving a single image on the screen for long periods of time. This is not a problem with RGB monitors.

TV sets are similar to composite displays, but the video signal, and the characteristics of the raster-scan is different. TV sets give the poorest quality display of the three monitor types that Junior can use.

Whenever you read about the characteristics of computer displays, you eventually come across the word "resolution". This is a measure of the sharpness of an image, and it is generally expressed as the number of dots that can be displayed on the screen. These dots, which are not the same as the colored phosphorus dots mentioned earlier, are called pixels. (IBM insists upon calling them Pels, which they derive from the words Picture ELEMENT.) Each pixel is roughly round and consists of a number of the phosphorus dots that coat the screen. Junior can display a maximum of 640 pixels across the screen and 200 pixels down the screen.

At this time, you might find it helpful to look at a pixel. To do this, get into BASIC. It doesn't even have to be Cartridge BASIC. You can just let Junior boot up without a disk in drive A (I'm assuming that, like most Junior owners, you don't have a hard disk.), and Cassette BASIC will automatically appear. Then type in the command:

```
SCREEN 2
```

This will put you into the high resolution graphics mode (640x200 pixels). Next type in the command:

```
PSET (320,100)
```

A small white dot should appear in the center of the screen. This is a pixel. If you look at the pixel through a magnifying lens (5 to 10 power works good), you will see that it is roughly round in shape and is made up of about four red, green and blue vertical bars. The right and left edges of the pixel are rather fuzzy, and it is difficult to determine exactly where the pixel starts and stops.

If you then try the commands:

```
SCREEN 1      and      PSET  
(160,100)
```

you can see what a pixel in the medium resolution graphics mode (320x200) looks like. Through a magnifying glass you will notice that it is the same height as the high resolution pixel, but it is twice as wide. It is roughly egg shaped and is composed of about eight vertical bars alternating red, green, and blue in color with the bars on the right and left edges becoming progressively dimmer. While you are in BASIC, you might as well try a command such as:

```
PSET (160,100),1
```

to see what different colored pixels look like through a magnifying glass.

In all of Junior's modes, the number of rows of pixels (that is, the vertical resolution) is the same (200 pixels), and this brings up the obvious question: "Why not increase the number of rows displayed as well as increasing the number of columns?" This is exactly what was done several years after Junior was introduced when IBM developed the Enhanced Graphics Adapter (EGA). The EGA adapter and display can show up to

640 pixels horizontally (no better than Junior) and 350 pixels vertically (much better than Junior). This increase in the vertical resolution was not easy to attain and initially an EGA video system was very, very expensive.

Remember that the raster-scan, the beam of electrons, moves horizontally from left to right across the face of the screen (called a raster line), drops down a line scans across again, drops to the next line and keeps repeating the process until the bottom right corner of the screen is reached. Then the beam quickly moves up to the upper left screen corner and the same scanning process is repeated before the phosphors fade. Each raster line is one pixel thick, so in order to display more vertical pixels the horizontal raster scan must be speeded up. Usually the horizontal raster scan speed is called the horizontal scan frequency and it is measured in Kilo-Hertz. Junior, along with other PCs with a Color Graphics Adapter (which we will explain shortly), has a horizontal scan frequency of 15.75 KHz. This means that it makes 15,750 horizontal raster scans every second. This is fast, but in order to display more than 200 vertical pixels the system must be even faster. EGA has a horizontal scan frequency of 21.8 KHz, and the very latest graphic systems have a horizontal scan frequency of 31 KHz and can display 480 vertical pixels.

All IBM personal computers have two basic modes of video display operation - Text and Graphic. We will cover both of these modes in detail in future articles, but for now we'll give just the information needed to discuss the video hardware in Junior. Additional modes, controlling both resolution and color, are available within each of these two basic modes.

While in one of the text modes, the computer is able to display only the characters which are defined in the extended ASCII character set. (ASCII, pronounced "ask-key", is the acronym for American Standard Code for Information Interchange.) The ASCII character set, which has been around for a very long time, originally consisted of 128 standard printable characters (uppercase letters, lower case letters, numerals, punctuation marks, and a space) and control characters (end of line markers, tabs, beep, backspace, etc.). Each of these characters has a number. ASCII character number 67, for instance, is an uppercase C, and character number 99 is a lowercase c. IBM extended the standard character set to 256 characters to include some foreign-language characters, Greek symbols and some block-graphic characters and Junior is able to display all of them while in the text mode. Text is the mode that Junior boots-up in and probably is the most often used mode.

In the graphic modes every pixel can be controlled and programmed.

The size of each pixel depends upon the graphic mode being displayed. In the medium resolution graphic modes the screen is composed of 64,000 pixels, arranged in 320 columns with 200 rows, while the high resolution graphic modes have 640 columns by 200 rows for a total of 128,000 pixels. Pixels can be combined to form lines, circles or about anything else you want, including text. Of course the color of each pixel can be controlled. The graphic modes are capable of very stunning displays but they are harder to create, require more memory and are slower than text modes.

In the first part of this article we explored monitors in some detail, but monitors make up only about half of the computer's video system. There must be electronics in the computer

which interface with the monitor. In our PCjr's these electronics are built into the computer, but for the other members of the IBM PC family they were extra cost "optional" devices called display adapters which plugged into the system board. (In the new PS/2 family, the display electronics are built in.) These adapters contain the electronics needed to send signals to the display, memory to store what is to be displayed and an output connector to the monitor. One display adapter, the Monochrome Display Adapter (MDA), was strictly for text. When used with a special direct monochrome monitor (We mentioned these in the first part of this article.) this video system produced very clear, crisp and readable characters, but it was not capable of showing anything except ASCII characters or using any color at all. The main purpose of these monochrome display systems was for word processing, data base management and other office related work.

The other IBM video system, the Color Graphics Adapter, was able to display graphics, text and a variety of colors. The drawback to the CGA was that the text was not nearly as sharp and clear as the text displayed by the monochrome adapter. Although the hardware in the CGA is quite different from the video hardware in Junior, the results are basically the same. For practical purposes, Junior's video system is a slightly enhanced version of the CGA. The CGA is capable of four different text modes and three different graphic modes while Junior is capable of these same modes plus three additional graphic modes. Until IBM introduced the EGA (Enhanced Graphics Adapter), Junior had the best graphic capabilities in

the IBM family.

All IBM personal computers use a memory-mapped video system in which a record of what is to be displayed, where on the screen it is to be displayed and how (primarily colors) it is to be displayed. This area in memory that controls the display is often called the video display buffer. One disadvantage in Junior's video system compared to CGA is that in Junior the video display buffer is located in main memory so that some memory (usually 16 K bytes) is not available for the program you are running. If you are tight on memory this loss of available memory can be significant. The PC CGA adapter has its own memory (16 K bytes) and this memory is placed above the 640 Kbyte working RAM (Random Access Memory) location. In Junior, the display buffer is usually located at the very top or at the very bottom of the working memory and its actual starting address depends on how you have Junior configured. Sometimes programs access the display buffer directly and for compatibility Junior uses a trick in the hardware so that Junior's video buffer appears to start at memory location B8000 (a hexadecimal number), which is the same memory address as the CGA video buffer.

There are three major hardware components of the PCjr video display system. All are located on the system board. For the sake of completeness we will describe these components in some detail. Two of these components are chips that can be programmed, although there is seldom a need to do so. Programming them is somewhat complicated and the same results can usually be achieved by easier methods. There is one exception to this that we will cover shortly.

The first component we will cover

is the 6845 CRT controller. Sometimes called the Motorola CRT chip, the 6845 is also found on the PC CGA and MDA boards and it defines and controls the raster scan. There are 19 internal registers in the 6845 and these registers can be used to directly program the chip. Four registers in the 6845 determine the horizontal characteristics of the display - the number of characters per line and the width of each character. Six registers are used for the vertical characteristics of the display - the number of characters per column and the number of scan lines per character. The cursor start scan line is set by a register and the cursor end scan line is controlled by another register. This is a good place to mention that other hardware generates the cursor blink and it cannot be turned on or off. Two other registers in the 6845 determine the row and column position of the cursor. Two registers control the memory address of the video display buffer and can be used for displaying different screen pages (We'll cover pages in the next article.). Two other registers are used for light pens and the remaining register, the Index register, is used to address the other 18 registers.

The second major piece of hardware in Junior's video system is the Video Gate Array (VGA) which controls color and handles memory. This VGA is not the same as the Video Graphics Array in the new family of IBM PS/2 computers. The VGA has two important functions. One is to manage memory related to the video display and the other is to control color and character blinking. All program references to the video buffer hexadecimal address at B8000 are rerouted by the VGA to whatever location is actually in use as display memory. There are 22 registers in the VGA. Sixteen of these registers are called Palette registers through which color identification

numbers can be changed. There are two mode control registers. Mode Control 1 sets the mode (text or graphics), the resolution and some video signals. Mode Control 2 register can be programmed to enable character blink (the default condition) or to disable blink. In our next article we will see how you can use this register to get twice as many text background screen colors as are normally possible. There is a register that controls the border color. This register can be used to set the border color but it is easier to do it through a BIOS (Basic Input/Output System) call. Of the three remaining registers, two, the Palette Mask register and the Reset register, should not be altered and the other one is a Status register.

The third piece of hardware in Junior's video system is the Character Generator ROM (Read only memory). This is a chip which contains instructions for forming the characters used in text modes. It takes the ASCII code number for a character to be displayed and generates the pixel pattern needed to display that character on the screen. This chip cannot be programmed, but it can be switched with other character generator ROM chips to display characters in a little different form.

This completes our examination of the hardware end of Junior's video display. In the next article we will look at just the text video modes. We will learn what modes are available and how to select the one we want. We will also unravel the mysteries of attributes, memory-mapped display buffers and pages. Finally, we will see how we can get more colors in the text mode than the manual says we can.

Next month: Part II on the PCjr video system - special emphasis on text modes.

FIXQCjr

A program that allows PCjr owners to run Microsoft's QuickC

By Blair Bieser

FIXQCJR.COM is a small, memory-resident program that keeps Microsoft's QuickC from locking up the PCjr's keyboard. To use FIXQCjr, simply install it ONCE after booting your computer. You don't need to install INT9JR or FIXQBjr (the Quick-BASIC patches), since FIXQCjr has code which takes care of the double keystroke problem.

By the way, regardless of what Microsoft says, QuickC is not totally compatible with DOS 2.1. I've noticed that the compiler can't seem to find the file containing the error messages. I tried QuickC again with DOS 3.2, and it worked fine. I guess that means this is not a PCjr problem. FIXQCjr is not a unique fix for QuickC. It may just solve some other compatibility problems. If you find that FIXQCjr works with another program, let me know so I can spread the word.

```
100 REM -- BASIC PROGRAM TO CREATE FIXQCjr.COM
110 OPEN "FIXQCjr.COM" AS #1 LEN = 1
120 FIELD #1, 1 AS A$
130 CHECKSUM = 0
140 FOR I = 1 TO 26
150   LINESUM = 0
160   FOR J = 1 TO 8
170     READ BYTE
180     CHECKSUM = CHECKSUM + BYTE
190     LINESUM = LINESUM + BYTE
200     IF (BYTE < 256) THEN LSET A$ = CHR$(BYTE)
210     PUT #1
220   NEXT J
230   READ LINECHECK
240   IF LINECHECK <> LINESUM THEN PRINT "Error in Line"; 280 + 10 * I
250 NEXT I
260 CLOSE
270 IF CHECKSUM = 15645 THEN PRINT "Successful Completion!" : END
280 PRINT "COM file is not valid" : END
290 DATA 235, 120, 144, 0, 0, 0, 0, 0, 499
300 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0
310 DATA 156, 80, 228, 98, 36, 1, 88, 116, 803
320 DATA 6, 157, 46, 255, 46, 0, 1, 157, 668
330 DATA 46, 255, 46, 4, 1, 228, 96, 46, 722
340 DATA 255, 46, 8, 1, 156, 80, 83, 30, 659
350 DATA 14, 88, 51, 219, 142, 219, 179, 10, 922
360 DATA 59, 7, 117, 9, 31, 91, 88, 157, 559
370 DATA 46, 255, 46, 12, 1, 135, 7, 46, 548
380 DATA 163, 6, 1, 184, 16, 1, 135, 71, 577
390 DATA 254, 46, 163, 4, 1, 235, 229, 10, 942
400 DATA 70, 73, 88, 81, 67, 106, 114, 32, 631
410 DATA 98, 121, 32, 77, 105, 99, 114, 111, 757
420 DATA 87, 105, 122, 97, 114, 100, 32, 83, 740
430 DATA 111, 102, 116, 119, 97, 114, 101, 13, 773
440 DATA 10, 36, 184, 2, 53, 205, 33, 140, 663
450 DATA 6, 2, 1, 137, 30, 0, 1, 140, 317
460 DATA 6, 6, 1, 137, 30, 4, 1, 184, 369
470 DATA 2, 37, 186, 16, 1, 205, 33, 184, 664
480 DATA 9, 53, 205, 33, 140, 6, 10, 1, 457
490 DATA 137, 30, 8, 1, 184, 9, 37, 186, 592
500 DATA 37, 1, 205, 33, 184, 28, 53, 205, 746
510 DATA 33, 140, 6, 14, 1, 137, 30, 12, 373
520 DATA 1, 184, 28, 37, 186, 44, 1, 205, 686
530 DATA 33, 180, 9, 186, 87, 1, 205, 33, 734
540 DATA 205, 39, 0, 0, 0, 0, 0, 0, 244
```

If you need technical support, send a self-addressed, stamped, business-size envelope to the address below. I'll make every effort to help anybody who asks. Just be sure to provide as much information as possible about your particular problem. Also, if you want me to try to solve some other PCjr compatibility problems, let me know (I stumbled onto the QuickC fix while working on a patch for MININEC, an antenna design program sent to me by a reader in Orlando, Florida).

Although FIXQCjr is donated to the public domain, it may not be distributed under a different name or without this documentation.

Blair M. Bieser, 8413 Nall, Prairie Village, KS 66207

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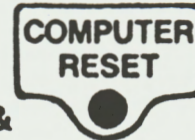
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The PCjr



Sports Extra

Whether the action is at ringside or
the 50-yard line, two new sports games
give Junior a competitive edge.

What's America's national pastime? Why, it's sports, of course. No doubt about it, be they participants or spectators, when Americans have some time on their hands, they start looking for some *action*. Americans go out of their way to make time for their pursuit of fast-paced entertainment. However, when you have a PCjr and two games like **Imagic's Touchdown Football** and Sierra On-Line's *Championship Boxing*, you don't have to go very far out of your way to find it—the fun is at your fingertips.

From the moment you first load *Touchdown Football* into Junior's disk drive and are greeted with the announcer's voice saying, "Imagic presents: Touchdown!" you can feel in your bones that you're in for some true-to-life gridiron action.

Now wait a minute. Did he say announcer's voice? You've got it, an announcer's voice. Imagine the magic of a human voice coming at you from your PCjr, and you have just one of the highlights of this action game. Imagic game designer Mark Klein programmed 24 phrases into *Touchdown Football* in his own and in a woman's

By Greg Pastrick

voice. It's a touch that makes all the difference between a good program and a *fantastic* one. But enough of this stuff, let's get to the game.

One for the Gipper With 12 seconds left on the 30-second clock, you hit the joystick's red button to snap the ball. A quick juke left and you haul back on your stick, sending your quarterback running along the line of scrimmage to the right. A 90-degree tug on the stick sends your runner straight up the field. Suddenly you imagine yourself the quarterback; you get a burst of speed as you hit the line, and the defenders scramble after you as you head for the sideline at the bottom of your screen. You get the first down plus four more yards and stop the clock with your run out of bounds. Moans of torment fill the air as the players run back to their respective huddles.

You hold down the black button on the joystick to view the patterns for your next play selections, moving the stick through the nine available play positions. Holding the stick in position,

you tap the joystick's red button to program the movement of the left and right receivers and the offensive line.

You think you're on a roll, so you call a series of quick downs of passes to the left and right, only to have the plays snuffed by the blitzing defense. It's fourth down and six yards to go at the 26 with only 58 seconds left on the game clock. You pull back on the stick and hit the red button for the kick play. You push the stick to the Field Goal-Right position, hit the red button again, and instruct your receivers and line to block straight. Both offense and defense automatically go into their kick formations. A tap of the red button sets the kicker in motion. You decide not to hit the joystick's black button to abort the kick and have the place holder run the ball in, so the kick is up. The ball sails through the uprights, its shadow marking a trail across the field, and the announcer confirms what you already know, saying, "Kick good." You witness the agony of defeat as your mighty opponent writhes with regret in the seat next to yours, lamenting, "Why didn't I rush him?"

You might think such player histrionics are an exaggeration, but not

so. *Touchdown Football* is one of those rare computer games that elicit competitive feelings from those who play it. It's also bound to bemuse anyone who happens to see adults hooting and hollering at a video screen like it's "Monday Night Football." Even if you're not fanatical about football, you can't help but delight in the sounds, action and graphics of this game. It's clear that the Imagic game engineers took great care to include real football elements such as cheerleaders, officials, whistles, crowd movement, music, and stadium cheers.

Poetry in Motion All the small but essential extras take nothing away from the basic play of *Touchdown Football*. The animation of the players is as good as, if not better than, any animated games we've seen for the PCjr. The fluid movement and definition of the game's on-screen players contribute greatly to the game's playability. Generally, the teams move in unison in preprogrammed patterns selected by the user. However, the quarterback and receivers (on offense) and linebacker (on defense) are directly controlled with the joystick. In addition, the kick receivers and lead tackles, on offense and defense, are also controlled with the joystick on kick-offs and punts.

Other movement is randomly controlled by the programming. Two of the best features are the way the players skid across the Astro turf following tackles, and the way a loose ball, on punts, bobbles about the field. The ground shadows of the players and the ball are top-notch graphic extras, and the end-zone victory dance performed by the player who scores a touchdown makes the victory seem just a bit sweeter.

Despite these heaps of praise, *Touchdown Football* is not without its problems. One of the most noticeable trouble spots is the obvious lack of depth perspective. We found this to be particularly bothersome when passing to the top of the screen. It's just plain difficult to judge where the ball is going to land. We experienced the same problem when trying to pick up punts. Patrick Ransil, Imagic's director of engineering, says the problem with perspective lessens with repeated use and practice moving the ball receiver with the joystick.

Play Book We also found that when playing against the computer, it was

too easy to defend against the computer's pass offense. In all the time we played against the computer, it never once scored a touchdown. The only points it amassed were for field goals and runbacks following interceptions.

For the most part, the action of the on-screen players emulates that of real players. The defense holds and ties up receivers just like the pros; however, the only penalties you'll ever get are five-yard ones for going offside and for delay of game.

Touchdown Football is most fun when you are playing against another player. And it is here that the game

city that never sleeps: New York, New York. This exclusive PCjr sports presentation is brought to you by Sierra On-Line's *Championship Boxing*. Let's go to ringside and our announcer, J. "Clutch" Wray.

"Hello folks, this is J. 'Clutch' Wray bringing you this title bout between Thomas 'Hit Man' Hearn and Roberto 'No Más' Duran. These fighters are just two of the more than 50 fighters in *Championship Boxing's* stable of boxing greats. And Roberto Duran, the man with the fists of stone, has everything riding on this fight. He has a tough opponent to face in Thomas



The fluid movement of the players contributes greatly to the game's playability.



play most accurately simulates real football. Real football games are won by taking advantage of the other team's errors; it's the turnovers, broken plays, and the ability to psych out your opponent that make all the difference. The rule we followed was: Play the computer to learn the 18 offensive and defensive patterns, and to study the movement of the ball and players. Play your friends to put the game through its paces and have some fun.

There's one aspect of *Touchdown Football* that shouldn't be overlooked. You have the opportunity to play both the strategist and the soldier in the trench who carries out the master plan. It's not too often that you get to play both roles, the brains and the muscle, when you're dealing with computer games. *Touchdown Football* has all the elements for fast and furious football action; all you need to supply are the grunts.

That quality is one this game shares with Sierra's *Championship Boxing*. So if slugging it out on the Astro turf isn't enough computer game excitement for you, how about taking it to the ring?...Your tickets, please. Step down the aisle to ringside, and follow the usher to your seat.

Golden Gloves Ladies and Gentlemen! Welcome to the PCjr Magazine Boxing Trials at Ziff Colosseum in the

Hearn, a man with a crushing right-hand punch. Let's break for a commercial message."

Sierra On-Line, makers of some of the best games for the IBM PCjr, has come up with another knockout. *Championship Boxing*, Sierra's new champ, is a comprehensive animated boxing program designed for people who want to learn something about the sport, its history, and its techniques. The game package comes complete with four manuals, titled "Program Guide," "Boxing Clinic," "How to Play," and "History of Boxing."

The program has three play modes (Simulation, Strategy, and Arcade), two scoring options (Round and Ten Point Must), two round selections (one minute and three minutes), and the option of using the program's own stable of boxers or creating your own fighter of the future. Let's go back to ringside.

"These two boxers are professionals. Now that they're pitted against each other in *Championship Boxing's* Strategy Mode, there's one thing Duran'll have to remember. When you're a boxer in a championship bout, you don't take chances—you can't take chances. One mistake and the right can do you in.

"Duran has a brutal overhand right of his own. But in previous Strategy Mode match-ups, he's been unable to get to Hearn with that right. And

you've got to get inside a taller man's reach!

"So there you have it, Hearns against Duran. A look at *Championship Boxing's* on-screen tale of the tape shows that Hearns is the younger, lighter, and taller boxer with a longer reach. However, Duran *has the experience*.

"First round action, and Duran is favored by the program to win. Hearns is the dark figure, Duran is the light. The fighters touch gloves and Hearns throws a *good right!*

"Duran moves in, bobbing and ducking, playing to Hearns' weak left. Good combination from Hearns. He tags Duran with a *stinging* right uppercut. Ten seconds to the end of Round One, in what's shaping up to be another tough bout for these two professionals. We'll be back with the judges' first-round scoring."

The Promoters About a year ago two brothers in Olympia, Washington—Dave and Barry Murry—started work on a boxing program that would be both educational and fun. Dave, the programmer, and Barry, the artist/writer, chose great fighters to be written into the program as they were at their prime, following either a championship or a notable bout.

The Murrays set up the main menu graphically along a street scene. To begin, you enter the Gym to choose from the list of champs or to make your own fighter. Next, you enter the Fight arena to watch, manage, or box. Then you go to the Options shop to select the scoring system, length of rounds, duration of the fight (1 to 15 rounds), and playing mode. The instructions in the "How to Play" manual are easy to follow and the graphics and animation are enticing. They make you want to get straight to the ring, so let's get back to the match.

"Here's how the judges scored Round One: 2 to 1 for Hearns. And the boxers' status? Both are breathing heavily, but neither is hurt.

"And there's the bell for Round Two. The fighters meet at center ring. Duran leads with a left, following with the effective right to Hearns' head. He's scoring very effectively. Another good right and Hearns felt it. The animated graphics actually have his knees wobbling and he's falling back. You can see the heads of spectators popping up over the edge of the ring. There's a press photographer trying to capture

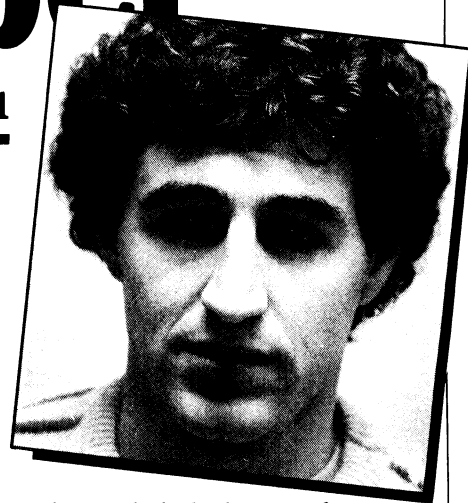
Ali Blasts Bomber

By Steve Barenfeld

PCjr Magazine asked New York Post sports writer Steve Barenfeld to cover the "Dream Match" of his choice with Sierra On-Line's Championship Boxing.

He chose a 15-round heavyweight bout between two legendary greats: Joe Louis and Muhammad Ali.

This classic brawl was fought in the game's strategy mode. Here's how Barenfeld saw it:



It was vintage Muhammad Ali. Dance... jab... work the body... wait for an opening... and then, go for the kill.

The victim this time was the vaunted Brown Bomber, Joe Louis, a 4-3 favorite who took a 55-1 record with 46 knockouts into his heavyweight clash with Ali and came out battered and beaten.

Ali broke the aggressive Louis' spirit with an early display of dancing and counterpunching; the Louisville Slugger broke Louis' rib in the fifth round and broke into a victory dance around the ring after knocking Louis out 2:40 into the seventh round.

It was supposed to be the toughest fight of Ali's life, but aside from a slight cut on the bridge of his nose, he had no trouble fending off the charging Louis and raising his mark to 40-0 with 26 knockouts.

Ali—with a 10-pound weight advantage, a six-inch reach advantage, and a six-year age advantage over the 34-year-old, 200-pound Louis—was content to let his opponent do the attacking early while he "shuffled" and probed for an opportunity to land a killer punch. The strategy worked.

The patient-as-Job Ali counterpunched Louis to death in the first round, landing lefts and rights that snapped back the Brown Bomber's head and hurting him with vicious shots to the ribs. Somehow, the judges scored the round for Louis, probably because he was the one moving forward.

But by the third round, Louis was on the defense. Sensing his foe was in trouble, Ali landed a straight left that staggered Louis, who managed to last through the round. In a valiant but vain effort to recover, Louis fought brilliantly against an attacking Ali in the fourth, cutting Muhammad's nose and winning the round.

That, however, was to be Louis' last surge. With the Brown Bomber obviously in pain around the right rib, Ali picked up his body assault. And when Louis tried to protect the broken rib, Ali hit Louis in the face with a series of hard combinations.

The sixth round saw more of the same, and after Louis opened the seventh with two lefts and two rights to Ali's head, Ali beat up on Louis, who crumpled to the canvas after a left to the body and a devastating right cross.

Louis was counted out, proving once again that Muhammad Ali is, indeed, "The Greatest." □

Sports Extra

Editor's Note:

The article on the right has been reprinted from the October 1984 issue of The PCjr Magazine with the permission of The Ziff-Davis Publishing Corporation.

Touchdown Football is no longer marketed by IBM but still is produced and marketed by Imagic and is available in most stores such as Crown Books and Software. The price for the software is now less than \$12. and represents a very good buy.

Championship Boxing is now longer actively produced by Sierra On-line but can still be found on some discount software shelves in various software stores. The discounted price is usually under \$10.

the moment. It's a mandatory eight count for Hearns. Those were punishing punches from a bull of a man.

"Hearns comes back to the center ring and there's the end of Round Two action, and a better round for Duran. We'll be back for the third and final round in a moment."

The brothers Murry—who call themselves Evryware—built some of the program's best features into the Arcade mode. In this mode, you have the option of controlling one or both the boxers from the keyboard. On the PCjr keyboard, letter keys are assigned movements such as step forward, jab, uppercut, and duck. It's also possible to redefine the keys to your liking. And you have the option of adjusting the fighting style and speed of your boxer's reflexes. We found that, like real boxing, the fighters telegraph their punches. For example, when a boxer is getting ready to throw a head punch, he'll frequently drop his arm.

In the Strategy mode, you have limited use of the action keys. Aside from the general instructions you can program for the fighters before and between rounds, you can "shout" instructions from the corner after mid-round by using one of two number keys, telling the fighter either to protect himself or go for the knockout.

Final Round "Here's how the judges scored Round Two: It's Duran, 2 to 1. And the fighters' status? Duran's breathing heavily, but is not hurt. Hearns is noticeably tired, but not hurt.

"All right, Round Three. When you're down like Hearns, you come back fighting—working those big hands.

"Both fighters have received their programmed instructions. Hearns was told to go for the knockout, but he's tired and I wonder if he can do it. Duran was simply told to wait for his opening.

"Duran is wasting no time. He's throwing a lot of leather out there, scoring and scoring again. Fatigue is beginning to show on Hearns. He's trying to use those lefts, get in close, but Duran is answering him back. Oh, a pulverizing punch from Duran. A right to the head. With 10 seconds to

go, Hearns is trying to rescue the round with a flurry at the end, but it won't be enough. We'll be back with the judges' final scoring."

The animation of *Championship Boxing* is superb. Each figure uses about 24K to manipulate its independently moving body parts. In the programming, the figure is split into several sections: Each arm moves separately, as do the head and legs. You can't really dance around the ring, but that doesn't detract from the simple enjoyment of the range of motion the program has.

"We're back live from the *PCjr Magazine* box-offs. Here's how the judges called it: 2 to 1 Hearns, 2 to 1 Duran, and 2 to 1 Duran. So, by a 5-to-4 decision, Duran takes the title."

There's no doubt about it. *Championship Boxing* accomplishes its purpose. We did learn something about boxing, its history, and boxing techniques. As long as a game does what it says it will, how can you go wrong buying it? But computer games are rarely like real life. Duran won the computer bout, but lost the real-life fight last June. Hearns took him out with a smashing right to the body that KO'd Duran in the second round. Goodnight Roberto, good-bye title. Let's go back to J. "Clutch" Wray for the sign-off. Take it away, Wray.

"This has been a sports presentation of *PCjr Magazine*, recognized around the world as the leader in games software presentation for the IBM PCjr." □

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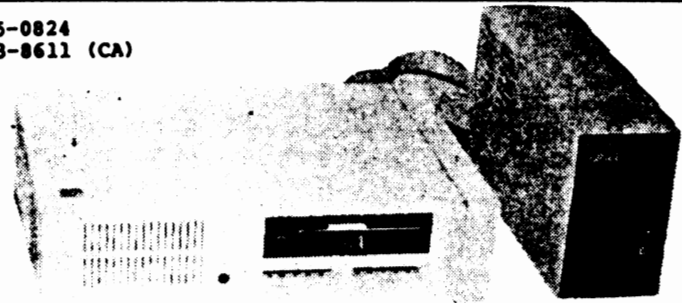
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Aug 88

The Print Shop and The Print Shop Companion on the PCjr

By Tim S. Hallen

The Print Shop (TPS) and *The Print Shop Companion* (TPSC) from Broderbund Software offer you many type faces, styles, pre-drawn graphics, and borders...but they are not for everyone.

The base program for the set is on the TPS diskette. This contains the driver program for printing signs, banners, greeting cards, and special user-modified images. The Print Shop Companion provides an extension to the type faces, borders, and graphics found on the base diskette. You can create signs on 8 1/2 X 11 sheets, banners with nearly 7 inch letters and graphics, greeting cards that are folded into 1/4 of a standard sheet of paper, and letterhead.

The reason I said earlier that they are not for everyone is not because they are hard to use. On the contrary - they use a VERY simple progression of menu screens, which even without the well-written manual, a first-time user would have little trouble completing a creation of their own. The reason that they are not for everyone is that due to the rather "crude" lettering and graphics, these two programs are best suited to quick applications, or informal ones, rather than something requiring a fine, professional look. These slightly ragged letters are fine

for most applications. The reason for the ragged edges is that each printed item, be it letters or graphics, is composed of blocks of print, rather than individual dots.

I mentioned earlier the simple progression of menu screens. These make for quick, accurate creation of the finished product. In addition, there is a preview mode, so you may see the finished product before you send it to the printer. This is handy, and allows you to step back through the screens to the point you wish to change, make a change, then retain all unchanged steps. This was a very good alternative to erasing all your work and starting over.

Once you get to the point of printing, you are also offered a printer test. This test prints a single line of dots, allowing you to accurately position the paper for printing. This is handy when you are combining TPS output with other output, such as a word processor (more on this later), as well as positioning such items as greeting cards, which take up most of the paper.

Of course, you can create your own designs and save them on a diskette, or use pre-designed ones. Both TPS and TPSC have graphic editors included, but the one included in TPS does not have as many features as the one on TPSC diskette (such as image

mirroring, which automatically mimics what you draw onto another part of the screen). Both allow you to modify existing graphics, to customize the supplied graphics. In addition, TPSC adds a font editor, allowing you to create or modify fonts. You could create special letters, for such things as a logo.

Besides the limitation of the rough edges on the letters and graphics, you are restricted to two sizes of each type face. Also, each type face varies in size compared to the others. For example, the large size of the "Balloon" type face may be two inches high, where as the large size of the "italic" may only be an inch and a quarter. I imagine this was done to allow the user in-between sizes, but it limits you to using the type face that fits your application size-wise, and not by the style. This means you may have to settle for a type face that doesn't quite fit the style you were looking for, just to make it fit the space. In addition, you are restricted to three sizes of graphics.

In all, you receive 12 type faces on the TPS diskette, and 12 on TPSC diskette. There are 140 graphics/patterns on TPS diskette, while you get 20 graphics (all Broderbund characters) and 45 borders on the TPSC diskette.

There is such a wide variety of type faces and graphics, that you

will not have trouble finding most anything you need. There are also additional graphics diskettes available that contain additional designs, generally on a theme, such as holidays, etc.

One way around the limitation of sizes on the type faces and graphics requires a little more work on your part, but may just help solve your problems. By printing the type face or graphic the the size that is closest to what the finished size should be, then photo copying either larger or smaller to suit, you can get by this limitation. You would then position the copied image onto the finished work and make final copies, possible onto colored or textured paper stock.

Another way to enhance the use of the software is by combining the output of TPS or TPSC with other printed output. You could position the paper at a certain point, use the software to print out a type face or graphic, then exit the software and print something else beginning where you left off. In this way, you can add special fonts to resume headings, fliers, etc. without having to do the "paste-up" as described earlier. This technique, however, requires additional skill, so you may wish to make several in case your positioning is off a little to begin with.

In addition to the above mentioned features, the TPS diskette contains what is called "screen magic". This menu option allows the user to view an ever-changing kaleidoscopic image, freeze the image, and then use it in other designs. You can add type to the image to give a bold,

geometric look to your creation. The images are even just fun to watch change on the screen.

TPSC contains two additional sub-programs. One is "the creature maker" and the other is a calendar making program. "The creature maker" is directed mainly at the younger crowd. You can create composite "creatures" by selecting, for example, the head of Frankenstein, the body of a monkey, and the feet of a clown. When printed, these "creatures" make good coloring pages. The calendar maker allows you to select either a monthly or a weekly calendar, to which you add events to give your calendar. One drawback I found was the lack of the ability to select a different type face for either of the calendars. When printed, the small size of the letters, combined with their boldness, creates nearly unreadable text. I asked the manufacturer if there was a way to select a less-bold type face, but was told that there was not. Maybe they could add this to future releases.

For those of you who do purchase the software, there is a tip I would like to pass along to you. The manual for TPS says you can install DOS 2.0 to 3.1. Heed their advice and don't try to install anything higher than 3.1 on the diskette. Due to the size of DOS 3.2, it will not install. I found this out by experience. I had not read the manual carefully enough, and attempted to install 3.2. I wrote Broderbund, and very promptly received a letter and a replacement diskette (even though I had not requested one). I would rate their customer service to be very good

Heed their advice and don't try to install anything higher than 3.1 on the diskette. Due to the size of DOS 3.2, it will not install. I found this out by experience.

because of this point. It seems that they were genuinely interested in serving my needs.

I would recommend TPS and TPSC for those of you who need an occasional personalized sign, banner, or greeting card, and do not require highly-polished results. I would also recommend it to younger users, as it is very easy to use.

GOOD:

Ease of use.

Quick to produce the finished product. Good assortment of type faces and graphics (although the graphics are on the juvenile order). Good customer service from manufacturer.

NOT SO GOOD:

Crude graphics.

Sizes available may be a restriction. Printing of the completed design takes a good deal of time.

Classified Section

Microsoft Mouse with Booster of 128K, Color Paint by IBM, Software for Mouse and Ramdisk Configuration. Asking price for above \$200.00.

Ronald Rukan
46 Rivercliff Drive
Milford, CT 06460
(203) 877-3035

Wanted: Unmodified Microsoft memory expansion sidecar w/128K for PCjr. Mouse preferred but not essential.

K.A. Edmundson
2317 Fairway Cir. S.E.
Decatur, AL 35601
(205) 895-5250 Day
(205) 353-7395 after 5PM CDT

IBM PCjr Speech Attachment \$40.

Doug Inglis
4111 E. Packard Hwy.
Charlotte, MI 48813
(517) 543-4499

IBM PCjr 640K via Tecmar with parallel port. Original color monitor, single drive, thermal printer, and manual. Software includes cartridge BASIC, Executive Writer, Numbers Works, Graph & Calc, etc. \$550.

Bill Tolson
159 Via Los Miradores
Redondo Beach, CA 90277
(213) 373-4104 E & W

IBM PCjr 512K, Legacy expansion, 2 drives, parallel port, color monitor, enhanced AT style keyboard, 2 joysticks, cassette storage recorder and cables, BASIC cartridge, video adapter, assorted cable sets, 2 extra PCjr keyboards, manuals and software. \$650.

UPS paid.
Tom Kravcar
321 S. Hickory Ave.
Bartlett, IL 60103

(312) 289-5283

Wanted: Lotus 1-2-3 for PCjr

128K single drive
Ted Rogers
43 Hickory Lane
Brewster, MA 02631

IBM PCjr w/Racore 2nd drive

640K expansion module serial port adapter cable, much more. \$700.
Bob Janacek
877 Buffalo Ave.
Calumet City, IL 60409
(312) 730-1215

Wanted - Desperately Seeking PCjr Color Paint cartridges for small elementary school. Traded up to something more powerful or simply letting yours collect dust? Let me know, I'll buy it!

Mike
(215) 566-4640 leave message, and I'll answer promptly and gratefully.

IBM PCjr 128K, single drive, color monitor, IBM compact printer, Jr keyboard, BASIC cartridge, PCjr Sampler, Guide to Operations, one roll printer paper, all original manuals and documentation. \$600. or best offer.

Chuck Larson
10348 Yates Lane NW
Bremerton, WA 98312
(206) 830-4861 after 6 PM weekdays or anytime weekends.
(206) 830-0153 for messages.

IBM PCjr 128K, PCjr color monitor, one disk drive, parallel port, V-20 chip, enhanced keyboard, Guide to Operations Manual, WordStar for the PCjr, Friendly Ware PC Introductory Set. All Excellent+ in operation and condition. \$395, UPS paid.

William Shimonkevitz
8927 Park Forest Drive

Springfield, VA 22152
(703) 451-1751

IBM Parallel Printer Attachment with instructions \$40., IBM Diskette Drive Adapter and Signal Cable with instructions \$25.

Jim Crowther
7504 Bear Canyon Road, NE
Albuquerque, NM 87109
(505) 821-0172

DESERATELY SEEKING IBM's Writing To Read Program to send to missionary friends overseas who are teaching their children at home. I already have the speech attachment, now what I need is the program!

Kathleen C. Jaeger
712 Sedgfield Dr.
Newport News, VA 23605
(804) 595-5764

PCjr Parallel Printer Attachment New, never opened, \$25. Lotus 1-2-3 w/driver for the jr version 1A \$100., Easy Writer version 1.1 \$25., PFS Plan \$30., Hayes Smartcom II \$35. Jumpman, Zyll, PC Pool Challenge, Touchdown Football, \$12. for all. IBM Personal Communications Manager version 1.0 \$15., IBM Writing Assistant version 1.01 \$15., Sidekick version 1.5 \$20., Turbo Lightning \$20., DOS 1.1 \$10., All original w/ manuals. Hayes Smartmodem 1200 \$165.

Dick Wendelburg
1335 Vernon North Drive
Dunwoody, GA 30338
(404) 393-9916

IBM PCjr 512K, Quadram expansion, 2 drives, jr Color monitor, internal modem, mouse, joysticks, manuals, and more...\$750.

Steve Brown

MEMORY 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 (you must already have 256K total RAM in your PCjr system. **IMPORTANT** If your Junior only has 128K total, you do not have a memory expansion sidecar attached, and you CANNOT utilize this service). 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 \$155.00 (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. Canada please write.

Name : _____
 Telephone no.: _____
 Address _____
 City _____ St _____ Zip _____

Mail form to:

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

1465 N.W. 178th Place
 Beaverton, OR 97006
 (503) 645-8727

Gordy Goetzman
 1414 2nd St. SE
 Rochester, MN 55904
 (507) 281-5167

with a standard PC. Difficult to find.
 \$35.
 S.E. Gruninger
 6629 N. Whipple St.
 Chicago, IL 60645
 (312) 764-3113

AMDEK ORANGE MONITOR
\$60., IBM Thermal Printer \$45.
 Charles Ellmers
 9690 Glenstone Dr.
 Kirtland, OH 44094
 (216) 256-3091

PCjr COLOR MONITOR ADAPTER CABLE. Use your PCjr monitor

WANTED: 1 USED PCJR W/
 WILSON-JONES Color monitor,
 640K, 2 dr., w/ Racore enhancement, 1
 color graphics adapter, 1 ramdisk soft-
 ware, 1 book on mastering Symphony,
 1 book on mastering Lotus 1-2-3.
 John Veltre
 P.O. Box 982
 Cartersville, GA 30120
 (404) 382-3841

128K PCjr, SINGLE DRIVE,
 parallel port, color monitor, dust cover,
 Filing and Writing Assistant, software
 manuals, other software. Excellent con-
 dition. \$500. or best offer.
 Brenda Royce
 263A West 19th St. #915
 New York, NY 10011
 (212) 677-3918

PCJR SPEECH ATTACHMENT
 Box never opened. Basic speech pro-
 gram and manual. \$75. includes
 shipping charges.

OOWI Software



1435 Burnley Sq. N., Columbus, Ohio 43229
 (614) 436-0219

JrHOTSHOT MEMORY UPGRADES —

256K w/CLOCK AND CAL \$190.00
 256K MEMORY ALONE \$154.00

512K w/CLOCK AND CAL (CALL) w/2nd DRIVE (CALL)
 512K MEMORY ALONE (CALL) w/2nd DRIVE (CALL)

RAM DISK SOFTWARE included free. Shipping is \$3.50 memory
 or \$7.00 memory + drive U.P.S. ground add \$2.50 if C.O.D.

COMPLETE 2ND DISK DRIVE ADDITIONS — Starting at
 \$187.95

2ND DISK DRIVE ADDITION KITS — \$44.95 Drive hardware
 available.

STAR NX-1000 PRINTERS 144 cps draft, 35 cps NLQ-\$189.95
 plus shipping.

MODEMS 300/1200 BAUD HAYES COMPATIBLE — \$139.95
 plus shipping, cables are available.

MEMORY SIDECAR UPGRADE INSTRUCTIONS — IBM and
 Microsoft 128K to 512K instructions. \$6.00 plus \$1.50 shipping.

V20 CHIPS w/INSTRUCTIONS just \$16.50 plus \$3.00 shipping.

PCjr JOYSTICKS — \$27.95 OR 2 FOR \$54.00 plus \$4.00
 shipping.

MANY SPECIALS EACH MONTH PLUS
 MORE HARDWARE AND SOFTWARE
 Call or Write for your **FREE**
 1988 SPRING CATALOG

EYE ON SHAREWARE

By D. Glanville

Has your PCjr been collecting dust this summer while you've been debating the whether to get skin cancer or a GREAT TAN that makes you look like a million bucks? Or have you been on a vacation ala the Griswalds in Vacation The Movie? Whatever the reason is that has caused you to neglect this most important member of your family (your jr), these new programs below can pep up that boring summer for your PCjr.

ASTRONOMER, WHEEL, AND RECEIPT (#132):

Astronomer is a program designed to calculate important astronomical data for the major planets for a specified place and time. The program uses the current date and time when the computer is turned on. You can display a plot of the inner planets (Mercury, Venus, Earth and Mars) in their relative positions, or display a plot of the outer planets (Jupiter, Saturn, Uranus, Neptune, Pluto). **256K REQ.**

Wheel is another version of Wheel of Fortune and Receipt is a nifty little program created to print a cash register receipt for those refunds. You know how annoying it can be if you've ever got a refund form, bought the product and then lost your cash register receipt, or you have only one register receipt and several refunds requesting it. You can make a pretty credible copy of your receipt with this.

WAR AT SEA (#133):

This program is a high level strategic and tactical situation using typical World War II naval campaigns. Some ships are limited to battles in which they actually took part and others may be used without having actually taken part in the battle. This is not a hand/eye coordination game, it is a strategy game. You may choose from seven campaigns including Pacific (U S. vs. Japan), Solomons (Japan vs. U.S.) and Atlantic (Germany vs. England). You will be asked to select your navy from a large stockpile and you are given infor-

mation which will assist you in choosing your ships. Then you have to choose your targets. **MAN YOUR BATTLE STATIONS! 256K REQ.**

BASIC TUTORIAL(#134):

Two **basic tutorials**, one for adults and one for youngsters. Introduction to Basic touches on statements, commands and functions. You will learn how to do simple programming. A friend told me she learned more from this program than she did from a whole semester of Basic Computing at night school. You'll learn how to LIST it, LOAD it, LOOP it, LET it, and that's just the L of it. You will understand RND, GOTO, INT, TRON, TROFF, DELETE, REM, DE-DUG, READ, RUN, SAVE and IF TIEN. ARCHIE, the tutorial for kids is well presented and amusing. Your child will have the opportunity to study simple Basic structures at his own speed. This is an excellent disk for anyone wanting to learn more about the BASIC language. **BASIC CARTRIDGE REQ.**

Please circle one or more below

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63
64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94
95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119
120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146

Number of program disks wanted: _____ times \$5.90 = _____
_____ times \$10.00 = _____
Total enclosed : _____

NAME _____

ADDRESS _____

CITY _____ ST _____ ZIP _____ PHONE # _____

ORDER FORM ON PAGE 28.**Don't forget the new programs on page 28!!**

- 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.
- 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.
- 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. **Requires 256K.**
- 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. **256K.**
- 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.
- 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.
- 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.**
- 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 - \$10.00. Also requires either RAMDISK or 2 drives.**
- 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.
- 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 - \$10.00.**
- 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 \$10.00.**

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.**

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.

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 - \$10.00.**

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.

EXTRA SENSORY PERCEPTION (#87): 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.

PC-DOS HELP (#88): Good instruction and 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.

MAKE MY DAY (#89): 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.

MEALMATE and others (#90): Mealmate is a planning aid for people preparing meals for someone on a carefully controlled diet. Mealmate is the indispensable guide for anyone preparing meals that have to meet strict dietary requirements.

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 fun and easy. For grades 1-6. **BASIC required.**

FOOTBALL POOL MANAGER (#94): 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.

GALAXY (#95): powerful, easy-to-use word processor with pull-down menus. Highly recommended for the novice Jr owner.

AS EASY AS (#96): Called the LOTUS 1-2-3 of the shareware world, just spreadsheet looks and acts just like its famous commercial cousin. One of the best-selling shareware programs. **Requires at least 320K.**

MOVIES ON LINE (#97): user-friendly movie cataloging program with thousands of movies on file. **Requires 256K.**

FILE EXPRESS (#98): reviewed in the November issue, this database has received great praise from everyone. Its ease of use, menu format, mailing features, and report generator has made it quite popular already. **Requires 192K, 2 drives or one floppy plus a ramdisk. TWO DISK SET - \$10.00.**

PCjr PATCHES (#99): Must have disk for all PCjr programmers. Contains fixes that will allow you to run Turbo BASIC, DoubleDOS (early versions), QuickBASIC 3.0, and Turbo C on the PCjr. As an extra bonus, there is a fix to run Chuck Yeager's very

hot selling program **Advanced Flight Trainer** on the PCjr.

A86 Assembler 3.07 and D86 Debugger 2.24 (#100): Both of these famous programs come on this diskette. Written by Eric Issacson, A86 is a full-featured, fast assembler and D86 is a full screen debugger with powerful commands and features.

GAMES (#101): two great new games: SKYRUNNER, a challenging arcade game with impressive graphics, and MONOPOLY, a new version which allows full viewing of the game board, good color, and better game play.

BUTTON GAMES 2 (#103): BUTTON GAMES #1 are text adventure games designed for those who don't have much experience with this type of game. BUTTON GAMES #2 are a little more advanced. In NEBULA, you are a NASA explorer sent to investigate a newly discovered star system. In DARK CONTINENT you find yourself in Africa looking for King Solomon's Diamond. On the third day you awake to find your native bearers have deserted you and taken all your money and supplies. Will you make it?

CITY DESK (#104): If you always wanted to be a publisher try this Shareware publication program. Automatic indexing, merged text files, headers and footers, includes Banner headlines and Layout options.

GAMES (#105): Some really fun graphics on this disk include Aquarium (if you are tired of looking at an blank monitor you can turn it into an aquarium and watch the fish swim around), EYE if you'd like to have your computer look back at you, YAHT a colorful game of Yahtzee, Wizard is similar to Rogue and is addicting, MILLEBNS is a solitaire game of Millebourmes.

BAKER'S DOZEN (#106): Fourteen of Jim Button's best utilities. BTTNCALC is a one page spread-sheet. CALENDAR a programmable date calendar, DISKUTIL with many HELP screens you can change files or directories-restore lost files-patch files and much more, FILECOMP compare two ASCII text files, GKEY provides all keyboard information, LOCATE find any file on disk or in which file(s) given string occurs, PRO90 prints files at 90 degrees, PC_SORT sort files with up to four fields, PRN-FILE redirects all information normally sent to your printer to a disk file of your choice, RDIR remove subdirectory including all files and children directories, SNAPSHOT take pictures of any 80 column screen (not graphics) in any program, SWCOM12 switch RS-232 ports for COM1 and COM2, SWLPT12 switch printer ports for LPT1 and LPT2. Some of these utilities require 256K of PCjr memory.

PC-STOCK (#107): PC-STOCK is a general purpose stock trend analysis program. It was developed with ease of use and graphic presentation of data as the primary objectives. PC-STOCK is entirely menu driven, making it very easy for the occasional user as well as the professional user to enter, modify, and obtain graphic trend analysis of stock data.

XWORD (#108): A crossword puzzle maker program. XWORD will enter your words, prompt you for clues and print out the completed puzzle, clues and solution. This is a great program for those who like to have puzzles that use special word lists (religious words, spelling words, family names etc). The printout looks very professional. Highly recommended. **Requires 256K.**

WORLDX (#109): This dandy little program will locate and print out maps of countries, states, cities and capitals from the whole globe. Just choose country, state or city you want to see then choose the map scale. Another option is POINTER. A mercator type projection of the world is displayed with a pointer located in the Atlantic Ocean. Use your cursor or number keys to position the cursor at the location you desire to examine. As the cursor moves its latitude and longitude will be indicated. When it is near where you want it, hit the enter key and the cursor will become the center of an expanded view. You can now reposition the cursor and expand again by hitting enter. Including the full world map you have five expansions. After a few expansions the names and locations of visible cities will be plotted. This program is not just instructional - it's fun! **Requires 300K.**

THE GAMBLER (#110): Three different programs to help you choose your lottery numbers and a BINGO game. PLOTTO by member C. A. Bates, not only makes selections, it tells you which selection the program feels has a better chance of winning. When you've made your choice you can have PLOTTO print it. If the lottery doesn't appeal to you try BINGO. This program will print out Bingo cards, then choose the BINGO numbers. A nice program for Bingo addicts. All's that missing is the parish, the shouting, and the prizes. Well, you can't have everything.

BRIDGE PAL (#112): A bridge game with instructions. There are three ways to play BridgePal. SOLO bridge is for one player. The SOLO game is the only one that lets you replay the hand, if you wish. TWO PLAYER bridge provides scoring for two people, who take turns playing random hands. Similarly, DUPLICATE scores for two, but deals the same sets of hands to both players. If you want help with your game, HELP is also available. Just push "H" and the computer will make your bid for you. Are you sure this is how Omar Shariff started?

AMPLE NOTICE (#114): An appointments calendar program. Appointments can automatically set up a 'pop-up alarm clock'. The disk also has alarm clock program and a utility which prints addresses sideways so that envelopes can be addressed from a standard dot matrix printer.

DMAIL (#115): A professional mailing list system that can create any number of lists, limited only by disk space. You can sort addresses on any of nine sort keys, copy selected addresses from one list to another, target your mail by city, zip code, area code, key word, etc. A powerful program. **512k required.**

ENCHANTED CASTLE (#116): Your adventure begins at midnight in the center of a medieval castle. You will search for the Star Diamond and escape with the handsome (beautiful) prince(ess). The Enchanted Castle is full of traps and dangers! The castle consists of over one hundred rooms and escape will require many hours of play. **256k required.**

THE NEWEST IN THE SHAREWARE LIBRARY

HAPPY GAMES (#117): Four great educational games for the very young. The first three are an excellent aid to pattern perception for young children and WIGGLEWORM is a nice arcade style game for one or two children.. I highly recommend this disk. **Joystick required.**

MEAN 18 COURSE DISKS (#118) and (#119): Our first two offerings this month are meant to be used with ACCOLADE'S best-selling "MEAN 18" golf game. Each of these disks has three courses. Disk 118 has Eagle River, Bay Tree and Palmer courses. Disk 119 has Firestone, Bear Creek and Desert Inn Country Club courses. Those of you who have MEAN 18 will want to have these extra challenges; those who don't have MEAN 18 are missing a lot of fun.

BY THE NUMBERS (#120): A numerology program guaranteed to entertain even the skeptics among us. You can find your lucky numbers, your lucky colors and your destiny. We know this is all hogwash (isn't it?) but its still fun to read. After all it did say I was versatile, quick-minded and courageous, all of which is true. Of course it also said I might be irresponsible and and vulgar, but then no program can be right all the time. **384k required.**

TYPING ASSISTANT (#121): If you want to learn to type or if you can type but need to increase your speed, this is the program for you. This program was designed to help the beginning touch typist and to help experienced typists sharpen their skills. Written by a fellow PCjuniorite, so give it a try!

BOWLING LEAGUE SECRETARY (#122): So many of you requested a bowling program similar to our GOLF HANDICAPPER that we found this disk just for you. Spare yourself all the work. This system can handle 18 teams, up to 5 bowlers per team, and up to a 50 week season. Programs are provided to enter scores, print standings (weekly), prepare Book average listings, final team/bowler standings, and either display or print individual team/bowler record sheets. See you at the fifth frame.

ABC FUN KEYS (#123): This program was written with imagination and aimed at children aged two to five. There are four programs intended to help you teach your child letter recognition and to encourage him to pick out, from your computer keyboard, the letter showing on the screen. You have a choice of speed ranging from a slow browsing pace to a rapid flash-card mode. The color graphics are attractive and will be enjoyed by the very young child.

FAST FOOD (#124): Even though more Americans than ever are watching their calories, sodium and cholesterol, fast food restaurants are springing up all over the country. We all use them. This disk lists the nutritional values of the menu items of fifteen of the most popular chains in the country. (E.g. a Big Mac has 570 calories-979 mgs. sodium and 83 mgs. cholesterol. A Dairy Queen banana split has 540 calories 150 mgs sodium and 30 mgs cholesterol. This disk will tell you all that and much more about each item.) **256k req.**

SPANISH FOR TRAVELLERS (#125): Learning a language from a computer has its drawbacks, i.e., pronunciation for instance. The author of this program suggests an audio tape to learn the best accent. Even without an audio tape, you will find this disk a real help if you are planning a trip south of the border this summer. The program consists of eight formal lessons with a few tests and quizzes thrown in, and an additional phrase/verb menu. **256k required.**

ASTROLOGY (#126): A full-featured astrology program for those of you who want to cast their horoscope. This program will help you calculate your chart and print out the results. Charts can be displayed in either graphic or cartwheel form. I don't know anything about astrology but many people who do follow the stars find this a useful program. This program **requires 256k** and two disk drives but it can be used with 640k using a RAM disk.

FORM LETTERS (#127): One hundred different forms and form letters for personal and business use. You will find a thank-you note, an absentee record, a demand for payment, a request for a refund, a letter of resignation and even a nasty letter cancelling an order placed with a pushy door-to-door salesman. All these letters are saved in ASCII form and can be imported to your word-processor. You can fill in the spaces or tailor the letters to your exact needs.

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