THE EUGENE PCjr CLUB
WELCOMES
JUNIOR TO 1989!

January Meeting Agenda: The January 12th meeting will be held at the Ida Patterson School Library, 16th and Polk, in Eugene. Set up and disk sales will start at 6:30 the meeting will begin at 7pm. We hope to have a demonstration of Norton Commander, a DOS enhancement shell from Peter Norton.

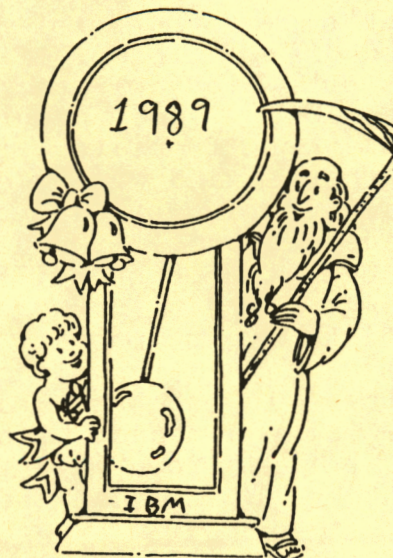## Notes From the President

Mike Luttio

As we start the New Year I hope that we all will make an extra effort to attend our monthly meetings. Each of us supports our club in his or her own way, but by far the most productive method is to attend the monthly meetings. By attending, we show our interest and support of those who take the time and effort to present programs for us.

The Eugene PCjr Club is looking forward to a busy and prosperous New Year. Cindy Hoffman has been busy cleaning out and sprucing up the Disk Library. If you have any suggestions of what to remove, or what should be added to our library, give either Cindy or Lindsey a call. Our information herder, Dick Page, has been busy reading all the material he can get his hands on for his column "Heard On The Street." Louie Levy has been calling all of us for articles for the Newsletter. Juanita Hampton has gone over the books and says that the Club is still in the black. Phil Janz has been busy organizing the Board so we no longer meet just to have coffee. Bruce Brown keeps

running up his Dad's phone bill in search of new programs for the club, and Elleen Levy has called many of us so we will have some goodies to munch on at each meeting.

Now its your turn. Actually, it is all of our turns. Each of us needs to attend the meetings and put in our two cents. We need each and everyone of our members to help guide us into 1989. If you are not getting something from your club meetings, let us know. Come to meetings and tell us how we can serve your needs. Let's make this the best year yet for the Eugene PCjr Club!

Best wishes for the New Year!

IBM PC*jr*

ADDING A HARD DISK TO YOUR PCjr
by John Wager, <u>CAPJUG</u>, vol.3, #3

Can you add a hard disk to your PCjr? Many people have told me that it is not possible, or that it is cheaper to buy a clone and add a hard disk to that. While prices for well-engineered products like the Racore 10 or 20 MEG hard drive units are still quite high, and prices for other add-on external units are almost as high, it is possible to add a hard drive to the PCjr for as little as $300 to $600, depending on drive and size. Here is a quick rundown of my experiences.

First of all, some comments on what you will and will not get. The Racore unit mentioned above, and I think the unit made by Legacy that is roughly the same type, will let you boot from your hard disk. If you add a hard disk from any other source, you will still have to have a system disk in Drive A: to boot from, with a config.sys file and an autoexec-.bat file on it. Most of the actual programs that these two start-up files call can be on your hard disk, though, so it is not too much slower than starting from the hard disk entirely. If you are a cautious kind of person who worries about some programs you get from your favorite BBS being trojan horses and wiping out your hard disk, having a PCjr can be an advantage, though. If you boot up with a disk that does not have the necessary file to recognize the hard disk, your machine and all programs run on it will not even know there is a hard disk attached, so you cannot be had by a trojan horse. You will probably also not be able to use some pro-

grams like FDISK from your DOS disk that you can use on other hard drives, and you will probably not be able to run some diagnostic programs for the hard disk either. But none of these is a serious loss. You may want to switch to a later version of DOS, though. DOS 2.1, the old friend that all of us Junior users have grown to love, has some problems dealing with 20 MEG hard drives and has some other drawbacks that may justify upgrading, but that has to be figured into the final cost.

Now, how can you add a hard drive for $300? Well, that figure supposes you only want a 5 MEG drive and can do quite a bit of assembling of electronic components from scratch, but the project is not that hard. An outfit in Minnesota, Turning Point Logic, has schematic plans, parts list, and good instructions on how to make an adapter card to use with a SASI Hard Disk Controller and any ST506 interface hard drive. You can buy the original ST506 drive, a 5 MEG drive, for under $150 in Computer Shopper, and there was an ad in several recent Byte magazine issues for a Hard Disk controller for $79 (the Sugart 1610). Add a case, parts, power supply, and cables and you might be able to do it for under $300. If you do decide to make this adapter, you will need to learn wire wrapping, but I have never done anything like that before and was able to complete the project in about 6 evenings work. Turning Point Logic sells a bare card that they recommend you use to put the components on, but then you will still need an external sidecar case, so what I did was use just a plain board from Radio Shack that fits the external case on top of the disk controller.
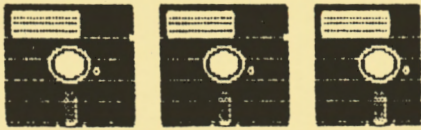
Even if you do not want to do this project, reading through the files that describe it would be a good introduction to how to add a hard drive to your Junior. You will need, at the minimum, some kind of hard drive, some kind of controller card, a case and power supply, and an adapter between the controller card and the PCjr. This last item is the main difference between PC (or clone) hard disks and the PCjr hard disks. You just can't add a PC type controller card into the PCjr; there is nonowhere for it to go. So all of the hard disks for the PCjr, whether you make the components or buy them all made up, must use either the sidecar buss or the internal modem slot. The TPL project above uses the sidecar buss, so is not compatible with Racore's Drive II with DMA, if you were thinking of combining them. Other products like the RIM adapter that uses the internal modem slot are compatible with the Racore DMA; I am writing this on a unit so equipped right now. So you know that the drive will connect up with the wiring to either the modem slot or the sidecar; where does the drive go? Racore and Legacy give real value for their expensive drives because their units fit right on top of the Junior. If you add your own, or buy a ready made unit from some other outfit like SPC, you will have another small box somewhere in the vicinity of your computer. Inside that box will be the drive, a power supply, hopefully a fan, and probably the actual hard disk controller card. A cable will then go to your Junior, either to the side or the back. What I did to get a 20 MEG drive was to buy the RIM adapter for $95, make my own cables from parts, buy a Seagate ST225 drive for about $300, a hard disk controller card (Shugart 1610) for $79, and pick up an external drive case at a local flea market for under $50. The last

item is more important than it might seem: If you do not have enough power for your drive, you will not get the thing going, or you will find it dying on you just when you need it the most. The ST225 does not need a lot of power so I was able to get a cheap case and power supply originally made to mount two half-height floppy drives. If you buy an older, cheaper hard disk, be prepared to spend more on power supply and a larger case. You do not have to use the RIM adapter with the ST225/Shugart 1610 combination; the TPL adapter card works with them as well.

The first drive, a 10 MEG I mail-ordered, did not work; I returned it and the controller card just to be sure. The replacement drive did not work either, although the seller was very helpful and sympathetic. After just about giving up, I bought a ST225 locally and it worked immediately. I have not had many problems since, but I am not sure I would trust the small power supply to keep the drive going 24 hours a day. I also have added an external $3 fan to cool the case; it gets pretty warm.

My Junior hard drive was no more expensive than the one we added to the PC at work but it does run noticeably slower, probably because it is not using the DMA circuits like a PC (or the Racore unit) would, and because it is using a Device Driver instead of dealing with the drive directly. But for writing with a program like WordPerfect that has so many disks, it is great, and is definitely much faster than I am used to on my Junior. It was also quite a bit cheaper to upgrade my old friend than to trade him in.

The Electronic Fish Story

Lately, numerous publications have come out with hair-raising stories concerning the introduction of computer viruses into our information processing world. These stories can, and do, get very vivid. The only thing lacking is blood and gore. The sobering fact is that most, if not all, are very similar to grandpa's fish stories about the big one that got away-- the truth gets slowly dissolved into sensationalism.

Most off these columns do not refer to "actual" experiences. I have yet to read a column in which the author has experienced the virus problems on a first-hand basis. Generally, it is either second, or even third-hand.

Let's put things in the proper perspective. Providing you do not download programs from a computer bulletin board, the chances of the average user running into a computer virus is probably about as likely as being bit by a rabid kangaroo on the corner of 6th and Washington in downtown Portland.

For those of you who still have some second thoughts, let's define the virus problem and discuss the cure.

Definition: A computer virus is part of, or a whole program, that is designed to cause the corruption or reformatting of data that is stored on your hard disk. If you do not have a hard disk, quit worrying about computer viruses. Note: A virus program does not do physical damage to the hard disk, only to the data stored on it.

TYPES OF VIRUSES

Type #1 - The Joke Variety: These really can't be classified as viruses because they do no harm. they only scare the devil out of the user. We have several of these in our office. One is DRAIN. When you start it up, it gives you back an A prompt. Pressing any key actuates the program and it tells you that there is water in your A drive. It then proceeds to drain out the non-existent water and goes into a spin dry cycle; all with suitable, and laughable, sound effects. No harm to the hard drive, just a tickle to your funny bone.

Type #2 - The Reformatter: When started, it goes into what appears to be a normal operating program. It then proceeds to do a low level reformat of your hard disk. Since it starts with the file allocation table (FAT), there is no time to stop it once it gets going. With the FAT erased, you are dead in the water. This type of virus is sometimes accompanied with a "HAR, HAR, HAR, I GOT YOU" or some similar message on the screen.

Type #3 - The Selected Segment Corrupter: This one just erases or corrupts segments on the hard disk. Generally, on the FAT file. (Ed's note: This is the type found by most Junior owners. It wipes out the drive and disk you are using until you reboot.)

Type #4 - The Delayed Action Reformatter: This program places an addendum onto the COMMA{ND.COM file that every DOS machine uses on start up. This reformatter will actuate after you have formatted several floppy disks (generally, the number is four). This corrupted COMMAND.COM will, then, be passed on to every floppy disk that you have formatted with the /S option. And, the infected floppies will continue the process all over again on another machine should you happen to give the disk to a friend.

THE "FLU SHOTS" TO FIX THE VIRUSES

Type #1: Don't worry about it! It's just some heart stopping fun.

Types #2 and #3: There are several commercial programs on the market that will counteract these problems. There is also DPROTECT and CHK4BOMB on the shareware market. These two programs, when run together, will effectively stop any computer virus.

<u>Type #4</u>:   This writes a revised version of COMMAND.COM onto your hard disk. This can be effectively stopped if you have DOS 3.2 or higher. Put the ATTRIB. COM program on your hard disk root directory and enter:

        ATTRIB + R COMMAND.COM

This will stop any program that attempts to write to your hard disk.
                        Darrel Fichtl
    (From: The Computer Chronicle, Minutes Magazine)

What Is The Latest Version?

Is that program you're using the most recent version published? Here is a listing of some of the more popular productive software.

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Dac-Easy Accounting..................3.0
dBase III PLUS.......................1.1
DS Optimize........................1.10c
GEM Desktop Publisher................2.0
Harvard Graphics.....................2.1
Lotus 1-2-3.........................2.01
Mace Utilities......................4.10
Managing Your Money..................4.0
Microsoft Quick Basic................4.0
Microsoft Windows...................2.03
Microsoft Word.......................4.0
Norton Utilities.....................4.0
PageMaker............................3.0
PFS:First Choice.....................2.0
PFS:First Publisher..................2.0
Q&A..................................3.0
SideKick...........................1.56B
Symphony.............................2.0
Turbo Basic..........................1.1
WordPerfect..........................5.0
WordStar Professional............Rel. 5
WordStar 2000 Plus...................3.0
Xerox Ventura Publisher..............1.1
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                Thank You, Micro Center

LETTER TO THE EDITOR

If any of you have had the misfortune to need repairs on your PCjr in Eugene, the following scenario may be familiar.
Recently I shorted something out on my machine (my fault, not the machine's) and needed repair. The original diagnosis, after a long speech on how the machine should be retired because parts are hard to get, expensive, etc, was a $400 bill. Even then the repair might not take care of the problem. The technician made it clear that he did not like working on "obsolete" equipment.
In desperation I contacted IBM. After being switched to a number of different locations, I was finally connected to an operator who gave me two authorized PCjr repair centers in Eugene. One was out of business. The other was PACTEL in Delta Village adjacent to Valley River.
PACTEL was pleasant and indicated that they liked to work on PCjr machines. In addition, they said they had a reasonable inventory of spare parts and if they didn't have a part, they could get it in a reasonable time frame.
The bottom line is that Junior is back up and running at a significantly less cost than first anticipated. I would recommend PACTEL to others with PCjr problems.

                    R. Hunt, Eugene, OR

Ed's Note: In this day and age when we hear so much detrimental about dealers and repair shops, it is good to get such positive feedback. Thanks, Roger, for sharing your repair search with us.

Just a reminder

We do appreciate receiving change of address notices. This keeps our files up-to-date and saves some money.

Want to Try a Mac?

The University library recently added an Apple Macintosh computer laboratory to its range of available public services. Equipment for the laboratory has been provided by the Apple Corporation and consists of two MacPlus computers, an ImageWriter II printer, and the hardware for an AppleTalk network to link them. An assortment of basic software was donated including the Macintosh Guided Tour, Software Sampler, MacWrite, Mac-Paint and MacDraw. While no fees will be charged for the use of the computer, the printer, or the software, users must have a current UO identification card.
(Ed's note: I knew there would be some hitch.)
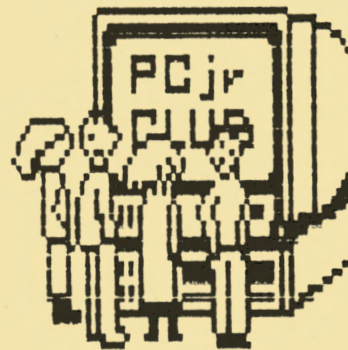

DRIVES A, B, C, AND D???

After reading an article by John King in the June issue of the San Francisco PCjr Users Group Newsletter, I thought that I would try out the new knowledge that John put forth on creating CONFIG.SYS files.

As I have the RACORE drivers, I use MDISK.COM to create a RAM drive C so that PC-FILE and WRITING ASSISTANT will run at greater speeds. But what John was saying in his article was that I could create two additional drives (or more) besides A and B.

The first thing I did was to see how large these two drives should be to hold WA and FILE: 291 and 200K; pretty large. Next, I made a systems disk; you know, FORMAT/S. Then I copied the drivers from the RACORE disk and things like MODE.COM and COLOR.COM to the disk. Next, I used John's instructions to make the CONFIG.SYS file.

This time I created two device=files: device=MDISK.COM /291 and device=MDISK.COM /200. Volar! A: drive, B: drive, a 291K C: drive, and a 200K D: drive. An AUTOEXEC.BAT was all that was left to copy the necessary files to the particular drives and I was on my way!
Thanks, John!

PROMPTS
or, Are You In A Rut With the A>?

We all remember Bill and Dick's article back in the second issue of the newsletter about changing the A> into face prompts. Still, we don't seem to use them much, and we allow Junior to run our lives by working with A> instead of happy faces, or bugs, arrows, diamonds, or, for the macho, the male sex symbol, and for some of us, the female sex symbol. In case you missed it, we are going to print Bill and Dick's instructions again.

At the A> you should type in PROMPT, a space, and then type in most what ever you want to create your own prompt symbol. Like pressing the Control key and touching the letter O will produce the bug. Pressing and holding the control key, and touching the A or B is the happy face, D will make a diamond, an E will produce a spade, the B will produce a beep, while the V will make a square, the K the male symbol and the L, a female symbol.

Try them in combinations; type in PROMPT, a space, then the ctrl key and Y, then the alt key and S. The next time you are sitting at your keyboard with that old A> showing, try it out. If you like what you see, put PROMPT in your autoexec.bat files and get away from the ordinary. If you don't like them, typing in PROMPT, or Ctrl M will get you back to the old fashioned A> for you old stick-in-the-muds.

NEWSLETTER DEADLINE: All material submitted for the Eugene PCjr Club Newsletter **must** arrive prior to noon the first Thursday of the month if it is to make that month's edition. Material can be in any format: scribbled on used napkins, on diskettes using any word processing program or text editor. Just make sure it gets to the editor in time!

DEADLINES

Trying to get a newsletter out on time can be pretty exasperating. Everyone has to get their articles in in time for them to be reformatted, printed, then pasted and made camera-ready. No time for equipment breakdowns. At such times the following article is very appropriate.

WARNING: This machine is subject to breakdowns during periods of critical need. A special circuit in this machine called a "critical detector" senses the operator's emotional state in terms of how desperate he or she is to use it. The "critical detector" then creates a malfunction proportional to the desperation of the operator. Threatening the machine with violence only aggravates the situation, and an attempt to use another machine may cause it to malfunction as well. Stay cool and say nice things to the machine. Nothing else seems to work. Never let anything mechanical know you are in a hurry.

From <u>LifeReach</u> Newsletter

WHO'S RESPONSIBLE FOR THIS?

President..............Mike Luttio
Vice-President..........Phil Janz
Sect/Treasurer.....Juanita Hampton
Modem Captain..........Bruce Brown
Disk Librarian.......Cindy Hoffman
Refreshments..........Elleen Levy
Newsletter Editor.......Louie Levy

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The **Eugene PCjr Newsletter** accepts advertising at the following rates:

        1 Page - $18.00
        1/2 Page - 9.00
        1/4 Page - 5.00

Classified **For Sale** ads in this section of the Newsletter are $2 for 25 words or less to nonmembers and free to members on a one-time basis. Ads should be placed at least two weeks before the next club meeting, and all payments should accompany the ad request.

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