It's Spring!

Fertilizer!

APRIL
MEETING AGENDA

The April meeting of the Eugene PCjr Club will be held at the Ida Patterson School Library, 16th and Polk, on the 13th. Set up and disk sales will begin at 6:30 and the meeting will begin at 7pm. ·

SPRING "CLEAN-IN"
AT THE APRIL MEETING

When was the last time you had the lid off your Junior? When did you last clean your Junior's read-write heads? Have you lubricated the rails they travel back and forth on lately? We know that you turn your keyboard upside down and shake it every once in awhile. Do you have a dog or cat, or, God forbid, a smoker that goes into Junior's room while it's run-ning? If you do, when was the last time you blew or sucked out all the residual gradue the little cooling fan has sucked into Junior's lungs? Don't despair; help is here!

We will be holding a "CLEAN-IN" at the April meeting. Bring in your keyboard and your CPU (Junior... Junior is the CPU). We will go through a step-by-step, hands-on assembly (disassembly?) of Junior, and you will learn how to clean, lubricate and do a quality assurance check on your Junior. For this meeting, you don't have to be a member to participate. We only ask that you bring in your Junior, your power cord (the "brick"), and your keyboard (with fresh batteries in it, or your keyboard cord. CAUTION: Be sure to place either the cardboard insert or an old diskette into the drive(s) before moving your Junior. If you have any questions or problems, call our Prez, Mike Luttio at 688-1289 or Louie, the Bull-Editor, at 343-7592.

(Editor's note: We did a lot of soul-searching and gnashing of teeth to come up with a nice catchy name for our annual cleaning event. The San Francisco PCjr group has held annual "Disk-Drive-Ins" for the past two years where members and others who need a second disk drive all got together and that's what they do: the club purchases the drives and necessary material and everyone does what is needed to modify their own Juniors and then they reimburse the club. Well, we broke down and plagiarized their term as we couldn't think of one of our own. Got any ideas for NEXT year's Spring cleaning?)
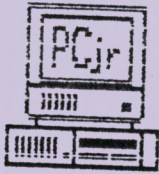
MORE ON GALAXY

When we did our survey of what word processors are being used by those mem-bers who attended the February meeting, GALAXY was about the only full featured program not in use by at least one person. With all the good review it has had, especially version 4.2, we were confused why no one was using it. Then it dawned on us. We didn't have GALAXY in our library!

Well, thanks to Omniverse, the creator of GALAXY, the club now has it in our library. I ran the program soon after we received it and it is just great. GALAXY comes on one diskette which is very hard to believe. When you run the "install" program, GALAXY de-arcs itself, putting the printer drivers, program and the 60 page manual on one disk and putting the four dictionaries on another. You might say that this is a 2-disk package for the price of only one.

The colors will really impress you! Of course spell check and reformat will also impress you, along with the pull down menus and windows...and the ability to work on two large documents at once. Try GALAXY. Ask Cindy for Club Disk 60.

What to Do When Junior Breaks
By Carl Haub

BeepBeep.   Ever get that when you boot and nothing else? What do you do? What if you turn on the machine and nothing happens at all? These are problems which may well confront you, particularly if your PCjr is getting on in age. While unsettling at best, most of these problems are easily fixed, many by the user.

This article is written, not by a technician, just by a PCjr user who can't tell a resistor from a transistor, but who has futzed about by trial and error and who also came across a list of IBM "error codes." If I can do it, you can.

First, don't be afraid to have a look inside Jr, even if you never have before. Lift the lid by popping it off with a quarter. What's inside? Working from left to right as you face it from the front, the first circuit board is the power supply. You may have either the older "short" card or the newer "long" one which reaches to the front of the machine. A failure here is often caused only by a blown fuse. Just to its right, in a metal RF (radio frequency) shield is the 64K memory board which brought your original machine to 128K. The first 64K chips are on the motherboard, the large board which completely covers the bottom of the machine.

Just to its right are two "slots." The first holds the Jr's 300 baud internal modem, if you have one. The second will have the disk controller board in it with a flat grey cable running to an edge connector on the disk drive. The cooling fan sits on the back of the disk drive. Both the fan and the disk drive are connected to the power supply card, which is how they get their power(!). The square silver "box" in the front is the infrared sensor which accepts input from the Jr's cordless keyboard. You can remove this by gently pulling upwards if you never use batteries in the keyboard.

It saves a little strain on the power supply and keeps the machine a bit cooler.

If you get the "two beeps" when you boot, it indicates some sort of problem. The problem may not be serious. It could indicate that a connector such as the light pen or serial port (which you may not use) has a defect. Bent pins from the careless attachment of plugs are a common problem. Or it could be something else.

You can troubleshoot the machine yourself.   Try removing one board at a time. Turn off the machine. Work from right to left.   Unplug the disk drive from the controller board by removing the flat grey cable.   Reboot. No beeps? It's something in the drive circuits. Still two beeps? Remove the controller board.   Then try taking out the 64K memory card, then the infrared sensor. If the problem still exists with all of that stuff removed, the problem is in the power supply, motherboard, or monitor.

Often, simply removing these components (and possibly cleaning the slot contacts with a clean gum eraser) will put your machine back into operation.   Dirty contacts, likely in an older machine, are a common source of failure in electrical components.

The error codes, if any, shown on the monitor screen provide more clues. During the Power On Self Test (POSY), these codes appear on the screen and normal use can often be continued by hitting the enter key if the failed part is not essential.   The following are possible error conditions you may encounter:

1.   Two beeps and a horizontal line across the top of the monitor screen and thats all.   Errors in CPU registers, ROM chips, 64K memory on the motherboard and/or 64K memory board, or something called an 8259 Interrupt Error. This usually calls for replacement of the motherboard (a $75 exchange item from IBM) or the 64K board. "Chip-level" diagnosis can, however, often locate the problem part for replacement at less cost.   Few shops, or IBM, are willing to perform that type of detailed repair, but Steve McMains, a member of the (Metro PCjr) User Group, and Lou Davidson/Dave Wisssman of MSC, Incorporated will. This

could also be a bad power supply, frequently fixed with a 50 cent fuse.

2. "Error A" shows on the screen. Memory error on motherboard, 64K card, or memory sidecar. If the latter, this can be caused by dirty pins on the attachment bus for the sidecar. Try removing and blowing any dust away or cleaning the pins. On Tecmar boards, this can be caused by looseness in the plug on the heat sink (the flat plate inside the sidecar).

3. Two beeps and "Error B" on screen. Almost always, this is because you touched a key while booting. This is a no-no; don't know why, but it is.. It can also indicate a bad infrared receiver. If it happens again when you didn't touch the keyboard, that's it. Replace it from IBM or get a keyboard cord.

Error B can also refer to the monitor, a little known fact. If none of the above seem appropriate, B may be indicating an error in the CRT/CPU page register logic (gate array, 6845, or associated TTL glue). In other words, your monitor has gone over the hill. DO NOT attempt to repair a monitor yourself unless you know what you're doing. CRT's store large, potentially fatal, voltages.

4. Two beeps and "Error C." Unlikely since it indicates an error with a cassette tape storage "wrap back." Who uses cassettes?

5. Two Beeps and "Error D." Serial port ("S plug") on back of machine failed. Bad news only if you use an external modem or a serial printer (the more usual dot matrix use the parallel port).

6. "Error E." Modem failure. At least it's (probably) not your Junior.

7. "Error F/G." Error F means an error in ROM on the motherboard (the chip can be replaced). G, more specifically, indicates an error in the ROM cartridge space. The high order byte is shown following the letter.

8. "Error H." Disk drive error. It's the disk drive.

If nothing happens, it's probably a power transformer (the "black brick"). These are available from IBM and (several other computer part dealers).

There, that's it. A brief tour through the error codes we hope you don't see. For those interested in pursuing PCjr diagnostics further, you should look at the PCjr Hardware Service Manual. The manual has plugs which fit into the back of the machine for various tests. It does not provide as much insight as one might expect, but is useful nonetheless for tinkerers.

(Reprinted from Metro PCjr Journal)

WHO'S DOING THE WORK?
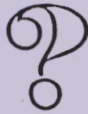
1989 - 1990 CLUB ELECTIONS

We owe many thanks to the Nominating Committee who have been able to put together a fine slate of nominees for Club Officers this year. The following members have consented to run for the offices indicated and are being submitted by the Nominating Committee for consideration by the membership at the April 13th meeting:

President..................Phil Janz
Vice-President............Elleen Levy
Treasurer.................Christine Brown
Disk Librarian............Cindy Hoffman
Assistant Disk Librarian.Lindsey Hoffaman
Modem Captain.............Mike Luttio
Commercial Contact........Jack Hart
Social Director...........Juanita Hampton
Newsletter Editor.........Louie Levy
Newsletter Co-Editor......Dick Page

We want to thank these folks for coming forward and volunteering to hold these offices. This is the spirit that makes our club viable.

Also, note that some of the positions have new names, especially that of Treasurer (was Secretary/Treasurer) and Commercial Contact (was Advertising Director). We hope to address these changes to our By-Laws soon.

If you would like to run for any of the positions on your Club's Board, be sure and attend this month's meeting. We will open the floor for additional nominations and then vote for new officers just prior to beginning Spring Cleaning.

?

WHERE DID ALL MY MEMORY GO??

Q: I was able to acquire, at long last, an IBM memory sidecar for my Junior. When I boot, the display shows that I have 256K of memory, but it doesn't seem to be accessible for some reason.

A: If you can visualize Junior's memory being something like a ruler, we will try to make this age-old question easier. If you have 128K, visualize a 128-inch ruler. DOS uses the first 24 inches (24K of memory) and the video buffer is located in the last 16 inches (16K), at locations 112 to 128 inches. Now you have added an additional 128 inches (K) of memory onto the 128 you had to begin with. As DOS begins to use this memory it will "stop" when it gets to the video buffer (at 112K) and this additional inches (memory) you have added won't be accessible. What you have to do is relocate the video buffer right after the 24-inch mark. After you do this, DOS will access everything above the 40-inch (40K) mark.

This is somewhat misstated as 16K isn't enough memory if you want to use the expanded graphics capabilities of your Junior. Instead, 32K must be reserved for the video buffer. For other appli- cations, you may need more than 32K for the buffer. Software that comes with memory expansion packages have programs that both relocate and changes the size of the video buffer. The IBM side- mounted package you ask about in your question uses PCJRMEM.COM to do these chores. When in doubt, read the book. But when reading the book only adds to confusion, ask the question!

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Just a reminder

We do appreciate receiving change of address notices. This keeps our files up-to-date and saves some money.
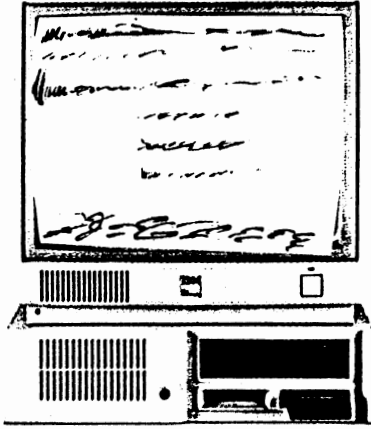
A CURE FOR "SMEARING"
by Ruth Grove

I guess that you could say I'm a charter PCjr owner. What that means is that I bought my Junior hot off the assembly line back in 1984. What THAT means is that I paid two or three times as much for my junior as most of today's PCjr owners did. In fact, what I spent would buy a pretty nice EGA system at today's prices! I have to say, though, that I have never looked back. I firmly believe that IBM made a huge mistake when they abandoned Junior, and he's proved it by growing up quite well without his "International Big Mother" (to borrow a phrase from Russ Walter!)

In spite of his dependability though, Junior has begun to show signs of old age. (Regrettably, he is not the only one in this household who is doing that!) Fortunately, in his case, the old age process can be slowed, if not reversed. The May (1988) issue of "The Junior Report" told about the PCjr's original disk drives beginning to fail; this article tells about another "old age" problem and how to correct it.

In any complex electrical circuitry there are certain values that can be affected by outside variables such as temperature and time. Most circuits are designed with this in mind, and are built to operate correctly over a normal range of temperatures. The time variable, though, can cause some of the component values to change ever so slightly with age, so that eventually the circuit will not function correctly at some of those "normal" operating temperatures.

The problem that has surfaced in Junior has been dubbed "smearing" by those of us who have seen it. The scenario is as follows: you've been computing happily along for 20 or 30 minutes, and find yourself needing to reboot for one reason or another. Confidently you punch the magic combination, CTRL-ALT-DEL. Junior obediently blanks out the screen, consults his disk drive, and flashes his prompt at you. The trouble is, everything on the screen is "smeared" sideways, and you can't understand a single thing he's saying. Sometimes there seems to be diagonal motion, other times the mess is stationary. You try the old "turn the computer off and try again" routine, only to get the same results. This is where the panic usually sets in. When it happened to me, I called a local computer dealer, who told me confidently, "Oh, yeah, your video controller card is going bad. It'll cost around $400 for a new one." Now, I know I've already said that I didn't regret all the money I had spent on my PCjr, but there is a limit, you know? I mean, after all, my family has grown rather fond of eating, and I couldn't see them giving that up so that I could fix

Junior.   So, I decided to give up rebooting.   Cold turkey.   But cheer up, fellow PCjr owners, you don't have to go through that,, because the good news is that eventually, I reasoned out what was happening, and discovered the cure for "smearing."   Better yet, it doesn't cost a penny. So here goes with the technical stuff:

Step 1:   Go put on some rubber soled shoes, touch something metal to make sure you aren't carrying around any kind of static charge buildup, and grab yourself a phillips screwdriver.   (An all-plastic one, if available--if not, be sure and use one with a rubber or plastic handle.)
Step 2:   Set your monitor in a place where you have plenty of space to work on it, but without having to disconnect it from your system and power source.
Step 3:   Remove the eight screws that hold the back of the monitor cover in place.   There are two in back on the top, one on each side of where the power cord enters the cover, and four on the underside.
Step 4:   Slide the cover off and look down into the monitor at the circuit board. DON'T touch anything, because the monitor can contain a good sized voltage buildup, even when it is off, and you know Junior and I would feel really bad if you got zapped! Towards the center of the board you will see a small adjustable capacitor labeled "H-HOLD."   It will be flat and round, about 3/8" in diameter, with an "X" in the middle to accommodate the aforementioned screwdriver.
Step 5:   This is where things get a little bit tricky.   In order to adjust the display, you obviously have to be looking at the display. This means that Junior will have to be up and running

during the operation. Also, Junior will refuse to "smear" with his cover off-- things just can't get warm enough in there to make it happen.   So, slide the cover back on (make sure the circuit board fits back into the little grooves on either side of the cover or it won't go back together properly) and start him up with your favorite program.   Wait about 20 minutes to let things get good and warm.

Step 6:   Reboot and see if Junior "smears." If not, wait a little longer and try again.   When he does, you're ready to operate.   Carefully slide the monitor cover back off, and locate the "H-HOLD" capacitor again.   Holding the screwdriver by its plastic or rubber handle ONLY, and being careful not to let the metal shaft OR your fingers touch any of Junior's innards, insert the tip of the screwdriver into the top of the capacitor and turn it until display is back to normal.
Step 7:   Slide the cover back on, screw all the screws back into their proper positions, pull up your favorite chair, and reboot to your heart's content.
          (The Junior Report, September 1988)

"Did you know there are two types of people: those who divide people into two types....and those who don't?"

JOIN US

The EUGENE PCjr NEWSLETTER is available for $12/year or as part of the paid-up Eugene PCjr Club membership at $20/year. Nonsub- scribers may receive one free copy of the Newletter on request. The over-worked Editor accepts no responsibility for the accuracy or reliability of the informa- tion,   opinions,   or   materials contained in this Newsletter. Reprint   permission   is   freely given; please credit the appro- priate author and the EUGENE PCjr CLUB NEWSLETTER. All contribu- tions are   encouraged and are gratefully accepted.

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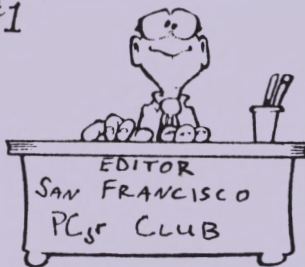Name_____
Address_____
City_____State_____
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#1

EDITOR
SAN FRANCISCO
PCjr CLUB

Kudos to the San Francisco PCjr Users' Group's "New Image"

All members of our sister club in San Francisco should be very pleased with their Newsletter. Beginning with the March issue, editor John Schwab has been publishing their Newsletter on a laser printer. And it surely does look great! Just when we thought the San Francisco PCjr Newsletter was tops their "capital E" editor goes and makes it better!

"HEARD (HERD?) ON THE STREET"
By Dick Page

CHECK THE OIL BEFORE LUBRICATING YOUR KEYS

"many users have written how to repair sticking keys with WD-40. I had similar problems but was told that oils could have adverse long term effects on the key function. However, a spray called "Elmer's Slide-All" works very well. It has a liquid carrier that evaporates in seconds, leaving a thin film of Teflon on the keyshaft. I used it on my return key several months ago, and it seems to be a good long term fix.
        by Terrence A. Quinn of the National
    Epson Users Group
        (in PC REPORT, Dec 1988)

A DRIVE THAT SITS ANYWHERE IT WANTS

How about a BIG hard drive for your jr? An 86 megabyte unit is now available from SPC. The drive is an Export 86H which has a lightening fast access time -19 ms. SPC has also increased the access time of its other hard drives for the jr. Systems Peripheral Consultants also has a new address:
    7950 Silverton Ave., #107
    San Diego, CA 92126
    1-800-345-0824
    (619) 693-8611
                    from Metro PCjr Journal

THE VCR/PCjr CONNECTION

Have you ever wondered what those mysterious jacks on the rear of your PCjr labeled "V" and "A" are for? The "Guide to Operations" calls them composit Video and Audio outputs. But what good are they to you when you have color display or TV connected to you Junior? Weell, those of you who have used a VCR may have noticed that it, too, has jacks labeled "Video" and "Audio" input. These can be used to link your Junior to your VCR via cables equipped with RCA or phono plugs.

After connecting the computer to the VCR, set the VCR to "Record" and be sure you have inserted a tape. The images shown on the PCjr monitor will be saved on the VCR's tape!

What's the real use of this? You can use the setup to save pictures or text created with such programs as PCjr Color Paint or PC Paintbrush. You can even save a game as it is being played and then replay it for analysis. Later, you can use it for a video slide collection or to add titles to a video tape.

Don't be worried if the colors on your monitor look a little different when replayed on the VCR.
    from John Hawkins, Venture PC Users
                    Group

PRINTSHOP UPGRADE

If you have an older version of PrintShop and recently bought a 24 pin printer you will need to get a program upgrade which includes the software drivers for 24 pin printers. It costs $7.50. Broderbund's cutomer service number is: 1-800-527-6263.

AIRPORT DISKETTE DAMAGE

In the COSUG TIMES, James Hueagen talks of evaluating the effects to floppy disk contents caused by radiation used in airport baggage surveillance devices. His experiments did not show any damage from direct exposure to X-rays or Gamma rays.

James postulates that the damage to diskettes more likely arises from electric fields generated by the motors which drive the conveyor belts used to pull baggage through the devices.

Therefore, have your diskettes hand-inspected rather than X-rayed.

IMPROVED IMAGES

You can salvage faded, streaked, or spotty laser printer images by spraying them with an aerosol fixative, available from art supply stores. This dramatically enhances the blackness of the image, making it reproduce beter.
   from Philip C. Russell, Walport, OR
                  in PUBLISH! magazine

free
NOTE: Each Junior who comes to the Spring Cleaning this week will receive IBM Part 6447163 from "The Disk Doctor."

SHAREWARE UPDATE

For those of you interested in shareware but confused about which programs to get, check out the March 1989 issue of PC Resource. The article "Shareware Sampler" gives a nice, but brief overview of 19 shareware programs the author finds useful and well written. He also does a nice job of explaining the distinctions between user-supported software, demoware, free software, and public-domain software.

Don't be afraid to ask dumb questions; they are easier to handle than dumb mistakes.

CAN COMPUTING LEAD TO DRUG ABUSE?

Q: How is MS-DOS like MSG?

A: Both of them raise your blood pressure and give you a tightening sensation around your forehead.
   from "Computer Lib/Dream Machines"
   by Ted Nelson, 1988 Microsoft Press

THANKS

Q: Thank you very much for the programs we recieved recently from your Disk Library. They all work quite well, and the price was very good. But why don't you make your programs "self-booting" rather than make us boot our Junior first?
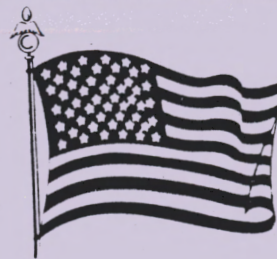   Virginia M.

A: Wouldn't it be great if every disk could be a self-booter? Unfortunately, the files that do the "booting" are the property of Microsoft. All of us "own" the Disk Operating System (DOS) and we use it when we boot Junior. When you purchased your computer, Virginia, DOS should have come with it. When you read the inside front cover of your DOS manual, you will see that you can't transfer any portions of DOS to someone else without being in violation of the license agreement which you agreed to when you opened the book. This means we can't put any of the files from DOS onto the disks we sell in the library.

Still, you can make your disks bootable. When you format a disk using the command **FORMAT/S**, DOS will format your disk and then transfer the necessary files from your DOS disk onto your newly formatted disk and it will then be a self-booter. Just follow the instructions on page 2-90 of your IBM DOS manual or on page 5-41 of your MS-DOS 2.11 manual. After this is done, just follow the instructions in the README file on your library disk and you will have the self-booter you want.

PC-WRITE v3.0

"The new version 3.0 can stand with the best professional word processors on the market... As a writer's word processor, PC-Write has always been superior. You can zip the cursor around the file, and execute a block edit or a search and replace, at blazing speeds. It keeps up with your mind... Almost anything about PC-Write can be changed to suit your preferences."

                    --Brit Hume, The Washington Post

(PC-WRITE is available from the Club library. Ask Cindy for Disk No. 3)

EUGENE PCjr CLUB

1011 Valley River Way, Suite 220
   Eugene, OR 97401

Richard Page 8/90M
5025 Willamette St.
Eugene, OR   97405

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(courtesy) PACOPE CORP.