FROM THE OVAL OFFICE
Frank Ratti

You know what they say about March coming in like a lion and going out like a lamb. March has come in this year like a lamb, so how will it go out? No matter what the calendar says, and no matter how much we are behind the needed snow accumulation in the mountains, I can't help but be stirred by the first blush of spring.

This doesn't mean you get to put your Junior away for the summer, or that spring cleaning is right around the corner. Just as all students know, the year is only about half over. There are still many new things to learn on your computer before fireworks and barbecues. We are going to lighten up a bit for our March meeting, though, as an acknowledgement of spring break.

We are dedicating the majority of the March meeting to software compatibility, including games. Not that playing games can't teach us a lot about the computer. For instance, why will one program run on a 128K Junior and not on a Junior with 640K? Why do some programs run on other computers and not on Junior? And the "flip side," why will some programs run on Junior but not on other computers? Why do some commercial programs indicate they are IBM compatible, then refuse to run on Junior? Phil Janz will present a program on software compatibility at this month's meeting. Phil and others have researched what software lines are still compatible with our Juniors and where to get them. Lindsey Hoffman will explain and demonstrate a "TANDY-MOD", and how this modification can enhance Jr's game performance. There will be time for you to test-run some games and challenge each other in a computer game corner. If you have any trouble running a game or other software program on your Junior, bring it in with you Thursday. Some of our "junior trouble shooters" will be on hand to help you get started or master the fine points.

Besides our Junior "winter" Olympics, we will have reviews of the most recent workshops: "Desk Top Publishing" by Louie Levy and Phil Janz; "PrintShop for Kids" by Lindsey Hoffman; and "Graphics" by Dick Page. Louie will also give an outline of the upcoming workshop on memory management. . .if he remembers.

Another important event in our March meeting will be the report of the officers' nominating committee, which consists of Christine Brown and Rosie Janz. They will recommend nominations for the elected Vice-President position and the appointed positions of Newsletter Editor, Modem Captain, and Social Director. These are not ceremonial positions as each entails a considerable effort. Our club is unique as evidenced by its longevity in the nation based solely on the IBM PCjr. This is directly related to the amount of work past and present

members have put into the club. At our board meeting on Feb. 17th, we reaffirmed the value of this club for its teaching and support of Junior owners. The club will remain viable only as long as you actively participate.

You don't have to be a computer wizard to contribute to the club's success. Every member can add something, and you will learn something new yourself each time you do. So, come prepared to the March meeting, 3/12/92. Set-up is at 1830 hrs at Ida Patterson School Library.

FDR

GRAPHICS WORK-SHOP COMING IN MARCH
By Dick Page

One of the interesting and fun things about computers is their ability to create images. Programs designed to do that are often lumped into the category of "Graphics Programs." As I will be putting on a graphics workshop this month, I thought you might like to know a little bit more about the general topic of graphics programs.

SHAREWARE GRAPHICS
Many commercial programs are available from $50 to $900. But there also are many shareware programs which cost much less and do just about the same job. In this month's Graphics Workshop I will present a sampling of the kinds of shareware programs usable on a PCjr. The majority of the workshop time, however, will be spent with getting each of the participants "up and running" on one particular shareware program that the members can learn about and take home to use. As always, we will give plenty of opportunity for hands-on experience.

WHAT ARE THE POSSIBILITIES?
As I said in the opening paragraph, Graphics Programs are used to create images. These usually are pictures to either be displayed on the computer's monitor

or to be printed out for viewing on a piece of paper.

SCREEN IMAGE GENERATORS
Computer generated screen images are usually made for one of three purposes: for recreation and use of math, for creating images to use in programs, and for making slide presentations.

You may want to use a graphics program just for the fun of seeing what can be created through this medium called the computer. Mandelbrot fractal graphics programs, for instance, use complex mathematical formulas to construct dazzling, intricate geometric forms on your monitor.

Computer programmers often need a means of drawing screen images which will be incorporated into the program they are making. A wide variety of programs are available to produce those images in any of the main programming languages (such as Pascal, BASIC, C, etc.).

The third use of screen image generators is to produce computer presentation slide shows and animation. These screen images are often used to demo how a particular software program works. They also can be used in presentations utilizing a modified overhead projector and a movie screen to allow viewing by large audiences.

PRINTED GRAPHICS
The most popular graphics programs are those used to create images on paper. Many of us home computer users tend to think the term "graphics program" is synonymous with Broderbund's *PrintShop*. The financial success of that program is proof that there really is a place for computer graphics programs. *PrintShop* (and some of its commercial and shareware competitors) generates great looking graphics for practical uses such as cards, letterheads, posters, banners, and calendars. Those younger members of the club who took the opportunity to learn more about *PrintShop* at the workshop this past Saturday, *PrintShop For Kids*, know how well these programs work.

Two other categories can be defined for printed graphics

programs: Computer Aided Designs ("CAD" programs) and drawing programs.

CAD programs assist architects, designers and engineers in drafting and in the design of objects. There is a wide range of possible uses for these programs - whether it be in home building and construction, metal fabrication, electronic circuitry design, or quilt making.

OUR GRAPHICS WORKSHOP
In our March workshop we will focus on the last category: drawing programs. They are also often called "painting" or "graphic design" programs. You might think of them as elaborate, electronic versions of Etch-A-Sketch. With them you can draw straight and free-hand lines, circles, ovals, boxes. You can shade portions of the drawings with any one of a multitude of patterns and label the drawings with text.

There is "limited seating available," so sign up now for the workshop! Be there or be square.

ROM BIOS WHAT IS IT?

As new Junior owners come into the club, we are getting more and more basic questions about the terms associated with DOS. (Often, the question isn't from a new user.) The one put to me at last month's meeting was, "what is ROM BIOS?" Actually, I put the question off with, "Well, that's what Junior looks for to start booting; er, where is Dick?"

ROM stands for Read-Only Memory, and BIOS is Basic Input/ Output System. The BIOS is a set of programs that are located on the ROM BIOS chips on Junior's motherboard. These programs are permanently programmed into these chips; to change the ROM BIOS, the chips themselves must be changed.

When you turn on Junior, the first thing the computer's processor does is initialize the ROM BIOS. The ROM BIOS, in turn, begins the Power-On Self-Test program, POST. POST checks all of

Junior's memory and checks for any devices that may be attached like more memory, disk drives, display, keyboard, etc. The ROM BIOS also contains the diskette bootstrap-loader and the PCjr's self-test routine that is outlined in chapter six of the Guide to Operations manual.

What Causes PCjr Compatibility Problems?
John E. Wilson

[John Wilson, frequent contributor to the jr Newsletter, wrote an article that addresses the causes of software compatibility problems with the PCjr. For those who are more technically inclined and would like a more in-depth report on compatibility, John's article was in the September 1990 issue of the jr Newsletter. Drop us a line and we will supply you with a copy if you don't have one. The following is condensed and is paraphrased.]

The IBM computer executives and engineers who sat down in 1982 and 1983 to design the PCjr were not trying to create a clone of the immensely popular IBM PC. Their objective was to create a member of what was to be a family of computers.

The original PC was to continue to be the most popular member of this family; to be used for general business and professional computer needs. For those who had large data bases and needed a computer with a high-capacity hard disk, there was the extended version of the PC - the XT with its whopping 10 Mbyte hard disk and larger power supply.

A transportable PC complete with built-in display was in the works for on-the-go users. The, yet to be announced, Advanced Technology personal computer - the AT - was intended for heavy duty number crunching and graphic applications by scientists and engineers. Junior's place in this family was to be for use as recreation, education, and light-duty computing in homes and schools.

please turn the page >>

In keeping with these objectives, Junior was given some graphic and some sound capabilities that the other members of the PC family did not have; and to keep costs down (and also to make sure that Junior wouldn't compete with the more expensive members of the family), IBM made some sacrifices in Junior's hardware and expansion capabilities.

As nearly as possible the PCjr was to be compatible with the other members of the family, but 100% compatibility was not an objective. . .

Now, all of us who own PCjrs are very much interested in compatibility. The quirks of Junior can be very frustrating and aggravating, and at the same time, fascinating and challenging. Many of us, perhaps most of us, have spent time trying to reconfigure our computer or patch some program that refused to work correctly, if at all, on Junior. And whenever owners of PCjrs get together, the talk is usually about which programs will or will not run on Junior or how to get some obstinate program to run on Junior. . . .

The microprocessor used in Junior is the 8088. This is the same microprocessor used in the PC and the XT, so Junior starts out as an equal with those two models. John's article continues to say that "PC compatible" no longer means that programs run well on our older machines, but instead, that they may run on the newer AT class machines. When we look at software now, we need to look for compatibility with the Tandy 1000.

The article covers the many different ways that software may act to prevent its being used on a Junior. Did you read the article just before this one on ROM BIOS? John tells us that on the Junior, the ROM BIOS are in two chips located on the front-left side of the system board. Other routines are located on the disk drive controller card and the 64k video output card. For this reason, some programs will work on a Junior and NOT work on a PC or XT.

When the AT and PS/2 computers were introduced, their ROM BIOS were greatly expanded, and Junior will not respond to some of these newer routines. (Your editor doesn't respond to these newer

routines, and has just stepped over his limited level of expertise!)

The areas that cause Junior the most problems for compatibility are in the video system, the keyboard and the diskette drive system.

The PC and XT user could choose option boards that fit internally so they could use either an MDA (monochrome display adapter) or a CGA (color graphic adapter) display. Rather than an add-on card, Junior's video system is built in as an integral part of the computer. Junior's video system "emulates" CGA; it is not quite the same as true CGA. Programs written for CGA that set the screen mode or color by going directly to the graphic adapter ports do not work on Junior as the addresses are in different locations.

The PCjr keyboard uses interrupt 2 keyboard routines instead of interrupt 9 as does the PC keyboard. Junior's keyboard can't store keyboard strokes like it's bigger brother, so this "non-maskable interrupt" causes us some compatibility problems.

To reduce costs, IBM let Junior's ROM BIOS handle the transfer of data to and from the diskette drive instead of using more expensive hardware. In the other models of the PC, IBM uses a Direct Memory Access (DMA) chip.

Actually, the problems we are finding with newer software is more of a hardware type problem due to the size of the programs. As the new programs get larger and larger, they are being produced on high density disks, or they require a hard disk just to store or load the program. We saw one program that had an EXE file of over 900K! And, some programs won't run on any video system other than EGA or VGA. These problems seem to be more one of obsolescence than compatibility. And, Junior isn't the only computer with this problem!

John's article is very informative and if you would like to get at the nuts and bolts of why some programs work with Junior while others won't, you should take a look at it. He leaves us with this bright spot on compatibility: ". . .although there

are some programs that will not run on the PCjr, there are a lot more programs that will."

(Note: If you don't subscribe to the *jr Newsletter*, you should! Write them at P.O. Box 163, Southbury, CT 06488. A one year subscription to this 24-page newsletter is only $23.)

Michelangelo Virus Hits Town

I am sure that by now we have all heard of the Michelangelo virus. It was due to hit everyone's computer last week, but it looks like it passed over us. . .or did it?

This virus, named for the Italian Renaissance painter and sculptor, lies dormant in an estimated 5 million PC-compatible computers, "poised to erase hard disks on Friday," the birth date of Michelangelo. At least, this is what a recent article from the Eugene *Register-Guard* stated.

John McAfee, who is head of a major "anti-virus computer consulting firm" in California is quoted as saying that the virus is a major threat to computers and that it could cause lots of damage. Another firm, Dataquest, said that it took a survey of 300 major businesses and the results showed that the Michelangelo infection had risen from 5.5 percent in December to a whopping 18.2 percent by the end of January. This is a giant increase for a virus that first appeared in Europe just one year ago last month.

Should we, in Lane County, be concerned? You betcha we should! It is already here in force. The chairman of instructional computing services department at Lane Community College, Bob Vogel, reported that they found it in six of their computers in November when they did a virus sweep looking for the popular virus called "Stoned." While this number is few compared to the several hundred computers at LCC, the Michelangelo virus could actually affect every floppy disk that was placed in these infected machines.

Key Advantage Computers and Software, here in town, reported they also were victims of the virus twice in the past two months. OmniTek Computers, while not actually saying how many instances they have found, are the dealers for Leading Edge Products who did say they unsuspectingly "shipped hundreds of Michelangelo-loaded computers in January." Even our good friends, Hammar Marketing, found some infected machines, and now does a virus sweep of every computer that comes in their door.

Unlike other popular viruses in the area (the Jerusalem virus which causes characters to drop off the computer screen, or the Stoned virus that displays a message urging the legalization of marijuana), the Michelangelo virus has the potential to cause major damage. According to Central Point Software, in Beaverton, Oregon, this virus is classified as a boot virus in that it infects the boot sectors of both floppies and hard disks. It also remains in memory once loaded. A boot virus, commonly known as a boot sector virus, copies itself to the boot sector of a disk--either your hard disk or onto a floppy disk you may place in your computer. As it replaces the original boot sector code with its own, the virus is loaded each time you boot with the infected disk, placing itself into memory. Once it is in memory, it can spread to any disk you place in your disk drive.

The Michelangelo virus is 512 bytes. Some of the side effects include damage to file linkage, changes to system runtime operation and changes to the disk boot sector.

Central Point has identified more than a thousand viruses and "more and more are written every day." Most anti-virus software will identify and purge infected disks, both hard and floppy. Many companies are producing anti-virus software. Besides some shareware versions, Central Point Anti-Virus and Norton Anti-Virus are two of the several commercial packages on the market.

Just like biological viruses, computer viruses are spread by contact. If you access a computer

BBS (and yes, the local library data base is actually a BBS), or if you insert disks into your computer from other sources without scanning them, you are at risk. So, if you suspect that you've been infected, seek help. Key Advantage Computers has given out hundreds of a shareware version of an anti-virus program. Stop by with a blank disk (or better yet, BUY some from them for being so civic minded) and get a copy. Or, if you have suspect software, bring it to the meeting this week to have it checked out; isn't this why you're a member of a computer club?

Prevention: The Best Medicine

COMING WORKSHOPS
Phil Janz

The Club Workshops offered in the past several months have successfully helped Club members with Writing Assistant and in the areas of Spread Sheets and Desk Top Publishing. The following workshops still have some available spots in front of a willing and able Junior! Sign up and take part.

MARCH:

GRAPHICS
This workshop will meet on March 14. Focus will be on *drawing programs* and Junior. As Dick says, you might think of them as a more elaborate, electronic version of an Etch-A-Sketch. Instructor – Dick Page

APRIL:

MEMORY MANAGEMENT PROGRAMS
This workshop meets on April 4. Class will cover the ways to make special purpose boot disks to utilize all of your Junior's memory. CONFIG.SYS and AUTOEXEC.BAT files will be covered. Instructor – Louie Levy

PC-FILE III
This workshop will meet on April 11. It will be an introduction to creating data bases, sorting and listing files, with the major focus on printing mailing labels. Special needs of individuals in the workshop will also be addressed. Instructor – Louie Levy

ONGOING MONTHLY:
WORD PERFECT
(Word Processing)
This is individualized instruction for those members interested in using WordPerfect. Call 343-7592 or check with Louie at the meeting.

"OK, sign me up!"

PCjr Club WORKSHOP REGISTRATION FORM

NAME:_____

ADDRESS:_____

CITY,ZIP_____PHONE_____

Workshop Name:_____

_____

FEE ($6 per single-night Workshop, or $8 per two-night Workshop: $_____

* Workshop participants must be Club members in good standing; Club memberships are "family" memberships and anyone in the family is eligible to participate.
* Early registration is encouraged to ensure that the workshop will be able to take place.
* Registration slips may be mailed to Phil Janz, 155 34th Place East, Eugene 97405.
* Checks should be made payable to EUGENE PCjr CLUB.

DO YOU KNOW ANYONE WHO

IS NOT A MEMBER ?

APPLICATION FORM ON THE

BACK COVER ! !

Look!

NOTE: The April meeting of the Eugene PCjr Club is the Annual Meeting. Once again we will be voting for officers. Because of last year's By-Laws change, only the office of Vice President will be voted on at the April meeting.

While the offices of Modem Captain, Social Director and Newsletter Editor are now made by appointment, the Nominating Committee would like to hear your comments. If you would like to serve your club in one of these elected or appointed positions, or if you have suggestions as to who you would like see fill these positions, contact Christine Brown (741-1594) or Rosie Janz (343-1059).

The Official XTree MS-DOS & Hard Disk Companion

"I ALWAYS BACKUP EVERYTHING."

RACORE SUPPORT

Support and service for the Racore Drive II PCjr second disk drive expansion units was transferred back in 1990 to PC Enterprises. While all owners of the Racore product line welcome this move, few of us realized the full impact it had for our future. We knew that transfer meant that PC Enterprises could now service the Racore products (and the Rapport and Quadram) should they break, but there are more benefits.

Now, if you experience any difficulties concerning instal- lation, use or compatibility of any Racore products, you can write to PC Enterprises' Customer Service Department. Also, Racore owners can now add the PC Enterprises' Junior Drive III or Hard Disk Expansion System very easily and can expect 100% compati- bility. How about a third floppy for that Drive II--a 3 1/2" 720K drive? Easy. PC Enter- prises' 150 watt external power supply, along with their hard drives, fit right on top of the Racore Drive II in the same type and style housing.

As PC Enterprises now supports Racore, it means that Racore is sharing pre- viously proprietary technical information about their products. What this boils down to is PC Enter- prises can now design and manufacture products that are 100% compatible with our old Juniors!
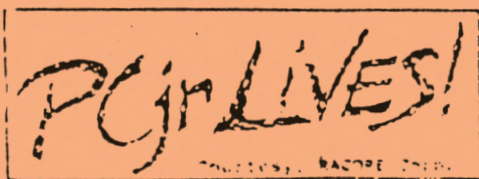
Atta boy, Joseph!

"I guess you're too young to remember DOS 2.1 . . ."

PCjrLives!

The EUGENE PCjr NEWSLETTER is available for $12/year or as part of the paid-up Eugene PCjr Club membership at $20/year. Nonsubscribers may receive a free copy of the Newsletter on request. Our Editor accepts no responsibility for the accuracy or reliability of the information, tales, opinions, myths or materials contained in this Newsletter. Reprint permission is freely given; please credit the appropriate author and the EUGENE PCjr CLUB NEWSLETTER. All offerings and contributions are encouraged and are gratefully accepted.
Make checks payable to:

EUGENE PCjr CLUB, 1011 Valley River Way, Suite 220, Eugene, OR 97401.
Please furnish the following:

Name_____

Address_____

City_____ State____

Zip_____ Phone_____

EUGENE PCjr CLUB

1011 Valley River Way, Suite 220
    Eugene, OR 97401

The Page Family 8/92M
5025 Willamette St.
Eugene, OR   97405

FIRST CLASS MAIL

PCjrLives!