# Charley's Corner
### by Charles Coury

Dear Friends of the PCjr,

This tax year I decided I would let the computer help. I get tired of making a small change in one amount, say in my Schedule A (Itemized Deductions), and having to recalculate by hand not only this schedule but the entire 1040 form dependent on it. So I took Saturday morning and created my own Tax Forms. I used a program much like PC-Calc in our Disk Library. If you've taken the workshop from Mike Ruiz you are familiar with spreadsheets and know a spreadsheet is simply a computer grid full of rows and columns and the cells they make. Using math you can manipulate these cells as you like. Nice thing is, that unless they change the tax forms drastically, I can use this same spreadsheet next year.

It works this way. If you want to add 2+2=4, put the first (2) in a "cell" (computer speak for the little box where you enter numbers in a spreadsheet). Put the second (2) in the cell below it. Put a formula, like [=cell 1+cell 2], in the 3rd cell below it. When you press the Enter key cell # 3 will show 4. Change cell 1 to 3 and Cell 3 will automatically recalculate and give you 5. Once you get the hang of it, creating spreadsheets is not as difficult as it sounds and if you into problems you can always call Mike.

Now, using this method, my computer adds and subtracts and multiplies the appropriate tax calculations automatically. For example, the 1040 Income section takes my Wages and Dividends and Capital Gains and Social Security Benefits (well not quite yet) that I enter in the appropriate cells and adds them all up. This cell I call Gross Wages.

Below is a little Spread sheet. By the way, I'm allowed to put text, not just numbers, in cells. It helps to keep them ordered in columns, however.

|         | Column A      | Column B                                                    |
|---------|---------------|-------------------------------------------------------------|
| Row 1   | *Text*        | *Numbers*                                                   |
| Row 2   | Wages         | *I enter my Wages from my W-2*                              |
| Row 3   | Dividends     | *I enter my total Dividends*                                |
| Row 4   | Capital Gains | *I enter my total Capital Gains*                            |
| Row 5   | etc.          |                                                             |
| Row 6   | Gross Income  | *I put a formula here to add together all the cells in this column* |

In Microsoft's *Multiplan* (which will run on our PCjr's needing only 64K), I can link this 1040 spreadsheet to another spreadsheet called Schedule A. This Schedule A spreadsheet has cells to add up amounts for State Withholding, Property taxes, Interest on our house payments, right on down the list found in the IRS Schedule A

form.  The bottom cell is my total Itemized Deductions.  The neat thing is that the two cells (line 34 in the 1040 spreadsheet and the total Itemized Deductions in the Schedule A spreadsheet) are dynamically linked together.  In otherwords, make an adjustment in some item in Schedule A and it will automatically change the number in the 1040 spreadsheet as well as the total in Schedule A.  Both spreadsheets will update themselves instantly.

For example, after filling in all the appropriate amounts in my Schedule A spreadsheet, I found another receipt in my box (pile) of papers.  It was for a charitable contribution I had overlooked for only 10 dollars.  Previously this would have been a real pain to recalculate by hand.  I would have had to re-add all the amounts in Schedule A **and** the Schedule 1040 dependent on it.  Now, since everything is linked together it was as easy as pie.  Everything changed automatically on the 1040 spreadsheet when I changed the amount in the Schedule A spreadsheet.  Not every spreadsheet has this linking capability, but *Multiplan* does.

I hope you enjoy your tax season as much as I did (it didn't hurt that we get a nice refund this year!).  See you at the next meeting.

Charley

## Tricks To Try When Software Won't Work

Most software that runs on PCs will run on PCjrs, but you may find some software that needs "special handling" before it will operate.  Some games and other programs, particularly those that make use of graphics, at first may seem to be incompatible with your PCjr, but don't give up without first trying the following methods.  Many programs that appear to be incompatible, will in fact operate well on your PCjr with this "special handling."

First of all, you need to know what a config.sys file is. This is the file that gives your PCjr instructions when first starting up.  When you have more than 128K on your PCjr, you must have a config.sys file to use that expanded memory.  You need to use memory management software to gain access to the addition memory.  Check the instructions to remind you how to use this program if you've forgotten.

To see what your current config.sys file says, put your DOS disk in drive A:, and at the A> prompt, type: TYPE CONFIG.SYS.  To change your config.sys setting, with your DOS disk in Drive A> type: COPY CON CONFIG.SYS.  Then type in the lines you want to have in your config.sys file.  At the end, type F6 or Fn6, then press Enter, and you will have a new config.sys file.  Before you change your config.sys file though, it's best to make a copy of your old one in case you want to go back to it.  If all this is as clear as mud to you, tell Phil that you need another workshop to help clear it up!

Ok, lets get to the steps to follow if your normal methods won't work with new software....

IBM Expansion Units -- If you have expanded your PCjr with IBM sidecars, try using a config.sys setting:  device= pcjrmem.com /c   This creates a video buffer of 96K and makes all graphics modes operable.  Using this setting does, however, mean you will have about 128K less memory to run the software.  Some software, especially when paging is involved, will run better with the /e setting instead of the /c stated above.

Other Expansion Units -- For other brands of memory expansion, use the config.sys setting that does the same as the IBM description above. Check your manual, or

better yet, use *jrconfig*, which is available on Disk U-611, Junior Power Pack, that is in the Club Disk Library. This program is easy to install and works well with all types of memory expansion units. It contains great documentation and instructions on the disk.

If you are using the old version of jrconfig use -t3 and either -v32 -v64 -v96, depending upon how demanding the software is. You may have to experiment a little.

Also, with large databases or integrated software, it sometimes helps to add FILES=20 to your config.sys file no matter what type of memory expansion unit you are using.

NOTE ON DOS: If you are using DOS 2.1, it should be patched to fix a few of its bugs which can cause your computer to lock up. This patch is free for the asking from the PCjr Club. Using DOS 3.2 or higher can solve some problems, but these versions of DOS take more memory and are noisier.

NOTE ON SPEED OF OPERATION: Software will run faster when it's loaded into "high memory" -- with Junior, this means memory that is above the 128K "lower memory." So, filling up Junior's low memory with a ramdisk, or large video buffer can speed slow running programs up considerably.

Try these methods before giving up on software you want to run on your PCjr. You'll be surprised how often just a little experimentation will work.

## Want to Talk to Another Member On-Line?

Here is a listing of those members who have email addresses (that we know of). If we have missed you, email us and let us know!

Our Newsletter  pcjrclub@efn.org
Jon Camp  jac@silvercity.mv.com
Charles Coury  ccc@efn.org
Clyde Dodge  arnie708@silicon.email.net
Darlene and Roy Gotzman  qumran@efn.org
Elmer Hungate  wfft94a@prodigy.com
Phil and Rosie Janz  rp_janz@efn.org
Louie and Elleen Levy  pcjrclub@juno.com
Lynn Miles  kathrynm@efn.org
Mike Ruiz  ruizm@lanecc.edu
Judy Young  judy_y@efn.org

## For Easier Reading Try a Thin Font Module

I recently installed a new computer chip in my Junior that is called the Thin-Font Module. The Club had this chip in the "store" but they can also be purchased from some other vendors. Thin-Font is a combination replacement character generator chip and comes with two software programs.

Some people find the letters on a PCjr display to be too fuzzy and difficult to read because they blur together (especially in the 80 column mode). This is because the PCjr Color Display is not a monitor with high quality resolution (although it is of very good quality).

The PCjr's "motherboard" has, as one of its chips, an integrated circuit which translates the input from the keyboard into designs on the screen. The result is letters drawn in the form of two-pixel wide lines.

The Thin-Font module replaces the existing chip with an integrated circuit which can generate either the original character shapes (serif style) or a set of thinner ones (a modified San Serif style) which are made of lines only one pixel wide.

The chip is a little tricky to install and not a task for the unadventuresome Junior owner, or the faint of heart. However, with the

help of the detailed manual sent with the module, most diehards can quickly install the new chip.

After unplugging Junior and removing the top, the Diskette Drive Adapter Card, the 64K Display and Memory Expansion card must all be removed, along with the Infrared Sensor Module like we do during Spring Cleaning. This provides access to the existing Character Generator ROM Chip.

After the original chip is removed, the new module is inserted in its place. A wire, which comes off the new THINFONT chip and has a clip attached, is connected to a resistor that is part of the cassette motor relay device. (This connection provides the switching power to convert back and forth between the Thin-Font and the normal PCjr character display modes. It does interfere with the use of a cassette player, but I have heard of absolutely no one who uses a cassette as a read/write device with their Junior.) The IR Sensory Module is a bit tricky to reinstall, but the other cards "are a snap."

Two programs come with the chip: THINFONT AND SETFONTS.

THINFONT is a Terminate and Stay Resident (TSR) program. If you put it in your autoexec.bat file, it is always available to use to switch between the normal wide font and the thin font. The switching occurs when you simultaneously press the <Alt>, <left Shift>, and <Right Shift> keys. This key combo can be changed, however, if you want a different set of keys to press.

The second program option is SETFONTS and is non-resident. At the DOS prompt you run the SETFONTS each time you want to switch the screen character sets.

I experienced no trouble getting the module installed. Some people may want the presence of another PCjr owner for moral support, but most of the installation fears are eliminated by following the fairly clear instructions (and poor photos) in the manual.

The only error I found in the manual was on page 8. The first line should be:
EXAMPLE:   THINFONT/N
instead of:
EXAMPLE:   THINFONT/T
Some of the pictures in the manual were rather illegible. PC Enterprises would have better served its customers with line drawings or clearer pictures.

The improved monitor legibility, the flexibility of being able to switch between display styles, and the ability to change the "hot keys" makes THINFONT a good addition to any PCjr's motherboard.
(The above article was originally published in the Eugene PCjr User Group Newsletter)

Q How can I tell before buying software at my local store whether or not it is going to be compatible with my PCjr?

A Even though your PCjr, if it has sufficient memory, can run almost any of the older software that was written for the PC, none of us want to get stuck with one software that is of no use to us. We don't know of any newer software that says on the package that the software is compatible with PCjrs.

Most of the leading software that was written for the PC, such as *Lotus 1-2-3*, *Symphony*, *WordPerfect*, *Wordstar*, *Microsoft Word*, *Multimate* and *Multimate Advantage*, *Sidekick*, *Superkey*, *Turbo Pascal* and all versions of DOS from 1.1 up to even 5 (with modifications) will run on PCjrs with sufficient memory. Some games that boot up directly with their own operating systems, and some copy-protected versions of software won't run on PCjrs, but they are rare.

The problem is with the newer software. All of the programs just mentioned will run on Junior if you are using the early versions of the

software. As computer technology advanced, software authors rewrote their original programs to take advantage of the latest technology (at any given time). Programs that require VGA graphics, soundblasters and much, much memory, of course will not run on our "peanuts." The programs that are written today, many times, will run only under Windows or Windows95 operating systems. Some of this software cost more than we paid for our Juniors!

If you are in doubt about a program you want to run on your Junior, try to find another PCjr owner who has run it, or drop us line and we'll try to find out for you. Or, you may want to take a look at Club Disk M-401, JR SURVIVAL MANUAL. Along with a lot of other great information, there is a "compatibility" listing of software that tells you what programs will run on a Junior and how much memory they require.

Q I get tired of having to reach for my DOS Boot diskette every time my PCjr asks for COMMAND.COM. Is there a way around this?

A There is, if your Junior has enough memory so you can create a small RAM disk and still run your favorite programs. The jrconfig.sys that is included on JR POWER PACK II, Disk U-611 in the Club's Disk Library, has instructions for doing this. Or, if you set up a RAM disk with other software, you can simply put these two lines in your autoexec.bat file:

        Copy COMMAND.COM c:
        C:command
              C:

## Cookbook From Alaska

We have received word from Soldotna, Alaska that Junior has been involved in the making of yet another cookbook! Junior Club member Lucretia Carter has been helping the folks at the Church of the Nazarene put together a collection of great recepies along with some historical data and sketches of the contributors.

Lucretia admits that some of the others who are working on the book are using Junior clones, and is even using a Macintosh, but she assures us that her Junior is right in there in the thick of things plugging away.

We'll keep you posted as we hear how this project is going. Remember the last cookbook that Junior was involved with? If you don't remember it, I'm sure that Juanita Hampton would be glad to remind you!

Q I would like to add a hard drive to my PCjr, but I want to do it as cheap as I can. Is there a way?

A As you have probably notice by checking some of the old advertisements from magazines and newsletters in the club library, hard drives were available for PCjrs, but they were very expensive.

The most economical way to add a hard (or fixed) drive to your PCjr was to buy an interface kit that was made especially for the PCjr. You had to assemble it with the hard drive, cabinet, power supply, etc. yourself. The key element is these interface kits, where they had to be designed especially for PCjrs.

The reason for the higher cost of adding a hard drive to PCjrs was, and still is, that there were fewer Junior users and therefore the PCjr elements were not mass produced as they were for other computers like PCs and XT compatibles.

The Eugene PCjr Club has long since stopped keeping track of each type of Junior our members are using, but we do know that

three members in the Eugene area are still using their original hard drives. While none of these units were made by Duracell, they have proven their durability. We read all the time about 286, 386 and even 486 computers having had their hard drives replaced due to failures, but we are not aware of any Junior hard disk failures.

## Images and Graphics

All of us could use a better understand of graphics and images as they apply to our Juniors. The different formats can get confusing to most of us. The last couple of programs at our meetings have really made us interested, but may not have helped our understanding of how images are actually made. This is especially true with *Graphing Assistant, Drawing Assistant* and *ColorPaint.*

Before we get into the differences in on-screen images, we need to come to grips with the way these images are produced. Take a small magnifying glass and get a close look at a TV screen, and then take a close look at Junior's monitor. It may be hard to get an image to stand still on TV, but you can see the difference. If you put up a picture on Junior's monitor that was made with one of the paint-type programs, like *ColorPaint*, using the magnifying glass will show that the image is made up many small multi-colored squares.

The squares that make up an image on our screens are called "picture elements," or using a word more familiar to us, "pixels." It is not hard to understand that the smaller the pixel the better resolution and quality our image will be. We also see this whenever we move from an 80 column to a 40 column screen, and we see it when we do Junior's internal diagnostic test (the control/alternate/insert key combination).

The next time you do the internal diagnostics, note that Junior tells you what type

screen you are seeing when it does the monitor test. A 640 x 480 screen means that it is using 640 pixels across and 480 pixels down to make up the screen. Again, the smaller the pixels, the better the image will look on Junior.

Now, getting back to what we saw with the magnifying glass, did you notice that each pixel is a different color? We know that our Juniors' use 16 colors. Still, we also know there are only the three primary colors being used to create the image.

So, how can we say that Junior will display 16 colors? What we are actually saying is that Junior can display 16 different color combinations. In all computers, we still have only the three primary colors, but we can vary the intensity of each primary color over a large scale and then combine each of them.

Many newer monitors can now display over 16 million different colors! But, as we said perversely, they only use three primary colors. The answer as to how they get so many color combinations lies in the fact they can have many intensities of one color.

These colors are stated in hexadecimal notation, a base-16 numbering system. If the programmer uses a range of from 0 to 255 to change the intensity of one of the primary colors, then the possible color combinations for all three would be 256 x 256 x 256, making a total of 16,777,216 different colors. So, while our Juniors do not have this capability, you can see how very sharp, very high quality pictures can be displayed on these newer and much more expensive computers.

The images we make with programs such as *PC-Paint* or *ColorPaint*, are "bitmap" images. Each pixel is a tiny square that will show on our screen as a particular color. ■■ When we use the "zoom-in" feature of these programs, we can change our image pixel by pixel to create our own personal images.

We can do this to modify, or edit other images that were made from other programs. This is how we make the lettering on the

the Junior at the bottom of the Agenda column on the first page. Thank goodness we do the newsletter in black and white!

As the name says, a bitmap image is a map of the pixels on our screen. If all the locations on this map are the color white, we will have no image. If we locate black pixels in the correct locations, we can produce an image of whatever we want. This is much like an inkjet printer spurting ink in the correct location according to the map it receives from its printer program.

The major problem with bitmap images is that they really loose quality as they become larger. As we enlarge the image, we begin to see only big black squares on our screens.

This leads us to another type of image called "vector." Vector images use mathematical routines to determine where the image is going to be located instead of using a "bitmap."

These mathematical routines also determine what the color value will be for each pixel. These vector images can be moved around the screen with a mouse. They can also be instantly resized or turned on our screens.

Graphics and image quality is a give-and-take proposition. You can see how it takes much more data to program software that uses many images or use images with a large combinations of colors. Using only 16 colors on Junior allows us to store most of our programs on a single 360K floppy disk. If we were using images that was quite large, we would soon run out of space, both on our disks and in Junior's memory.

*King's Quest* is a good example of a program for Junior that is all graphics. When you add animation to this, you can see that the authors did well to get it all packed onto a single 360K floppy disk. This is why programs, especially graphics intense games, have moved from our format of a single 360K disk to the larger capacity high-density 3.5-inch disks. Now, these programs use multiple high-density disks and compact disks. These programs are

large; very LARGE. The Shareware version of DOOM, a popular game on compact disk, is larger than five megabytes, while Junior's floppy disks can hold only 360K. What this means is that a single CD can contain more data than all of the floppy disks that most of us own!

## Next Meeting: A Software Faire

As some of you know, Louie got called out of town to Fairbanks to help take care of his grandchild while his son and daughter-in-law had a medical emergency. Phil is biting his nails as he and Louie are supposed to be giving us a Software Faire at this month's meeting.

We will have several stations around the room where small groups of members will "try out" some new software. This is always fun to do and we all gain by learning some of the tricks to get things going, and we also get to preview some great software!

I would really like to write more about the Faire, but as I look out the window here in Fairbanks, I just wonder if everyone will even be getting this newsletter! Boy, talk about deadlines. I'm glad I brought my floppy up here with me! And my personal thanks go to Phil Janz for all the extra work I am having to put on his shoulders while I'm gone. Thanks!!

Computers (and Email) are just great. Another problem with this issue is that Elleen isn't here to proof all this stuff--but many of you have already guessed that!

IF YOU NEED HELP BEFORE
THE NEXT MEETING. . .

## Give These Club
## Members a Call:

BASIC. . . .    Paul Bonney - 344-1501
WordStar . .   Paul Bonney - 344-1501
PC-File III . . .  Louie Levy - 3437692
PC-File +, 5 or 6:
                    Dick Page - 342-3193
WordPerfect . .Louie Levy - 343-7592
                    Mike Ruiz - 687-8361
Writing Assistant.Phil Janz - 343-1059
Name Pal . . . . .  Phil Janz - 343-1059
Communications:
        Gordon LeManquais - 746-1594
                    Mike Ruiz - 687-8361
Hardware Problems:
                    Dick Page - 342-3193
                    Louie Levy - 343-7592
Spreadsheets. . . Mike Ruiz - 687-8361
Workshop Sign-up, Parts and supplies:
    The Company Store-Phil Janz:
                    343-1059

If you are not in the Lane County Area and should need assistance with your Junior, write to us at P.O. Box 50220, Eugene, OR 97405

You can also get help by sending Email to any of the following people:

Newsletter Editor     pcjrclub@efn.org
Jon Camp     jac@silvercity.mv.com
Clyde Dodge    arnie708@silicon.email.net
Phil Janz     rp_janz@efn.org
and, for last measure:    askibm@ibm.com

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