

jr Newsletter

February, 1990

Compuserve's PCjr Forum Offers Lots of Goodies

By John E. Wilson

You will find many good things in Compuserve, but in my opinion, the most interesting and useful are the forums. Forums are, in effect, electronic clubs where people meet, through their computers, to exchange information and viewpoints. There are over 150 forums on Compuserve. Each is dedicated to a special interest such as ham radio, genealogy, comic books, science fiction (one of the most popular forums), music, and, of course, there are many forums covering different types of computers, computer languages, and computer programs.

As you might suspect there is a forum specifically for users of the IBM PCjr, and in the rest of this article we'll take a tour through this forum. See the companion article "Connecting to CompuServe" for information about CompuServe.

Once you have connected to, and are within Compuserve, you can get to the PCjr forum by typing GO IBMJR anytime Compuserve asks for a choice. After a couple of seconds you will see a message on your computer screen indicating that you are in the IBM PC Junior Forum. The very first time that you access the forum you will be asked if you want to join. You will want to join since it doesn't cost anything extra, membership will allow you to access all of the forum's features, and joining is, in effect, a vote for continued PC Junior support.



"I will if you'll let me use your PCjr."

Whenever you log on to the forum you get a short welcoming message which includes the time and date of your last visit to the forum, followed by a couple of lines of news, and this main IBM PC Junior Forum Menu:

- 1 INSTRUCTIONS
- 2 MESSAGES
- 3 LIBRARIES (Files)
- 4 CONFERENCING (0 participating)
- 5 ANNOUNCEMENTS from sysop
- 6 MEMBER directory
- 7 OPTIONS for this forum

You type in a number to indicate which section of the forum you want to go to, and then you will usually get a submenu (to several levels, in some areas) to further define your choice.

We'll take a look now at each of the main menu choices. Choice number 1, Instructions, brings up information on the various areas of the forum and gives you help (as detailed as you want) on using the forum. It will pay you to read these so that you can efficiently use the forum. Time is money in Compuserve, and you will want to make the most of every minute.

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PCjr Lives!

- address**
Much like the street address for a house, each location in your computer's memory is referred to by a unique number, known as its address.
- analog**
Refers to circuitry which operates with electrical signals that represent a continuous range of values. Contrast with digital
- array**
A string of variables, all referred to with the same name.
- ASCII**
The standard translation table used to convert characters to their machine representation and back. An "ASCII file" is a file containing text.
- assembly language**
A language designed to let programmers work directly with the machine language instructions that the processor understands, but which provides English-like commands that are easier to work with than the ones and zeroes of machine language.
- asynchronous**
Refers to events which occur on an irregularly timed basis. Communications over the PCjr's internal modem operate asynchronously. Contrast with synchronous.
- backup**
A copy of the information on a mass-storage device, to protect you in case of loss or destruction of the original information. Also refers to the process of creating a backup.
- bandwidth**
A measure of the information-handling capability of electronic circuitry.
- BASIC**
An acronym for Beginner's All-purpose Symbolic Instruction Code. A programming language originally designed for teaching purposes, but now the most widely used language in the microcomputer world.
- batch processing**
Direction of the operation of a computer from commands stored in a file rather than from commands typed at the keyboard.
- baud**
A measure of the rate at which units of information are transmitted between the computer and another device. 1200 baud is equal to about 120 characters per second. Overhead may cause effective rate of transmission to be lower.
- Bell 103**
The universal transmission standard for 300-baud modem communications. A Bell 103-type modem can speak only to another Bell 103-type modem, but since Bell 103-type modems are so widely used, this is rarely a problem.
- Bell 212A**
The most widely used data transmission standard for 1200-baud modem communications. However, other 1200-baud standards exist which are incompatible with Bell 212A-type modems. A Bell 212A-type modem can only speak to another Bell 212A-type modem, so you should make sure that any 1200-baud modem you get is compatible with the computers you want to communicate with.

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Questions and Answers

By Rene Waldron



EDITOR'S NOTE: jr Newsletter gets questions in the mail from PCjr owners every day. So many, in fact, that we apologize for not being able to answer them personally. This Questions and Answers column is our way of responding to the questions readers ask about their PCjrs. We can't answer all of the questions we receive, but we try to answer those that are either asked by several readers or those we feel will be of interest to PCjr owners in general. If you have a question that you do not see answered here, or elsewhere in this newsletter, please feel free to write to us at jr Newsletter, Box 163, Southbury, CT 06488

Q. I am unclear as to how to use the escape codes as listed in my printer manual. Can you shed some light on the subject? M. Hunt, Indianapolis, IN

A. O.K. The printer codes as described in the manuals are the only proper codes for each brand and model of printer, so keep them with the printers.

First of all, forget the Escape key on your keyboard and its code when dealing with printers. There is no connection at all! The Escape key on your keyboard has the keyboard scan code of 01 hex and the break code (when you release the key) is 81 hex. Your printer is not looking for either of these codes to operate in the "escaped" mode.

The printer escape code is 1B hex which is the value 27 in decimal notation. CHR\$(27) is the representation in BASIC. This is NOT the math value 27 or the character string "27." It is the 28th symbol in the ASCII numbering sequence. Remember, ASCII starts counting at zero.

To get this idea more clearly, look at any ASCII chart and find the number "2" and you'll see that it has a code of 50 decimal; the "7" has a code of 55 decimal. Whenever code 50 goes to your printer it prints a "2" and when code 55 goes to the printer the "7" is printed. Looking at this same chart, find code 27... Aha! There it is and it has its own IBM symbol, a left pointing arrow. This character can be printed on your screen, but it has an entirely different effect when sent to your printer.

Whenever your printer receives code 27 decimal (NOT code 50 then code 55, just code 27) it will "escape" from the mode of simply printing characters. Instead, as the immediately following sequence of codes is received the printer will act according to the manufacturers' program-

ming of the board installed for that model of printer. If the manufacturer has made the printer IBM or Epson compatible, this board is where it has been done.

The code which follows code 27 will trigger the printer board to expect varying sequences and will act upon them accordingly. Here's an example: The printer is sent code 27 followed by code 71 (this one is the same as ASCII "G"). The printer "escapes" from printing a "G" and instead sets itself up for double-striking the NEXT characters which are sent to it. Later, if the printer gets code 27 followed by code 72 (ASCII "H") it cancels the double strike mode. These are Epson and IBM compatible code sequences; your printer may use different codes but we doubt it. The semi-colons shown in your manual are absolutely necessary -- they "link" code 27 to the following code(s) so the printer will use the sequence properly. Use upper or lower case exactly as shown in the code sequences if letters are used for the codes.

Note that there are some actions the printer takes which do not require the escape code (27) to perform something other than printing characters. The carriage return is one of these. When code 13 is sent to the printer it causes the printer to send the carriage back to the left side. When code 10 is sent, the paper is advanced one line, and there are others. These two codes are often sent as a pair. Can you see why? Think of some circumstances where only one of the two might be sent...

Q. I am told that the Text Column Function of Word perfect 5.0 will not work on a jr with a Racore Drive Two Plus with DMA. Do you know of a fix? R. Foster, Bethlehem, PA

A. There was some misinformation given out about this. It was in error. The Function DOES work.

Q. Some time ago, I acquired a copy of MS DOS 3.2 and attempted to boot up with it. The disk was formatted with the usual FORMAT B: /S command. No other files except COMMAND.COM were on this disk. My PCjr hung up and I had to power-off, use my usual old disk and restart. How do I get MS DOS to run on the jr (or can you tell me where to get PC DOS 3.3 separately at a good price)? C. Wess, Columbus OH.

A. MS DOS is often specifically set up for whatever ROM is in a clone machine and is packaged with that ma-

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Questions and Answers

(Continued from page 3)

chine so none of this might work. First, make clean, exact, back-ups of the MS DOS 3.2 diskettes using DISKCOPY, even if you have booted up with PC DOS 2.1. Second, put the originals of MS DOS 3.2 away!

Re-boot with the "new" 3.2 disk and make whatever booting and/or data disks you need using the commands ONLY from these "new" diskettes. You can't mix anything at this point! SYS.COM is quite different for PC DOS 2.1, PC DOS 3.2, PC DOS 3.xx and certainly for MS DOS any version! Make sure that COMMAND.COM for MS DOS 3.2 is the one on the disk. FORMAT.COM with the /S will necessarily be different in these versions too, so be warned once again; do not try to mix any of these DOS command files with any other version of DOS.

If all of this still doesn't work, pull the BASIC Cartridge and try again.

IBM's own PC DOS any version (except 4.xx) works without a hitch in the jr. PC DOS is available from most of our advertisers. Also check with Advanced Computer Products, Inc. for PC DOS various versions at 1-800-366-3227. They apparently buy surplus carloads at a time and though availability is spotty, they have the genuine article at low prices.

Q. I have recently added a 3.5" drive to my system. It is a Junior Drive II 750k from PC Enterprises. I am having trouble copying files from my 5.25" 360k drive to this new one. I have tried DISKCOPY, COPY *.* , COPY FILESPEC.EXT, and even Copylljr! I get messages such as "disk is write protected" when it is NOT, or when I try to run programs from this drive it searches for "something" it can't find and finally gives up. I would appreciate any help you might provide. G. M. Nefferdorf, Warminster, PA

A. If the connections have all been checked and are proper and tight, then look to software. We don't know which version of DOS you're using but there are basically two ways to handle the new drive.

In DOS 2.1 you must have the drive recognition AND drivers as supplied by PC Enterprises on the disk AND in your CONFIG.SYS file. Their instructions for use and installation of this software are quite explicit and must be followed exactly or the drive is just an alien piece of hardware to your jr!

In DOS 3.xx the drive is handled by the device drivers which are built-in to these versions. The drive would probably be called B: and E:

When addressed as B: it would try to be a 360k drive and when addressed as E: it would be a 720k drive. To do this in DOS 3.xx put in your CONFIG.SYS file the following

driver command: DEVICE=DRIVER.SYS/E:1 Look in the DOS manual for an explanation of this and the flexibility it has, if you want this drive to be configured differently.

If all of this fails, it is possible you have a hardware fault, but we doubt it.

As-Easy-As 4.0 Is Major Upgrade For Popular Shareware Spreadsheet

As-Easy-As, the shareware Lotus 1-2-3, was already one of the top spreadsheet programs available at low cost. Now, with this major update to Version 4.0, it continues its tradition of power and ease of use.

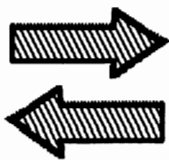
The version in the jr Newsletter Software Store on Disk #67 is 2.05, so this one is several upgrades beyond that. We are leaving Version 2.05 in the Software Store as Disk #67 because it runs well on 256K. Version 4.0 requires 384K, so we are providing it on a separate disk (Disk #107) for those who have enough memory.

NOTE FOR DO-IT-YOURSELF TAX PREPARERS: A spreadsheet program such as As-Easy-As provides an excellent tool for tax preparation. Just use the columns for various categories of deductions, etc. and your spreadsheet performs the calculations flawlessly. Spreadsheets offer a simple, but very effective alternative to full blown tax preparation programs.

Now, for the new features included in Version 4.0. Keep in mind that these are features listed as added since Version 3.01, so if you've been using Version 2.05, there are even more than those listed here.

SOME of the new features in Version 4.0 include spreadsheet linking; many more graph types; the ability to export graphics in PIC format for importing to word processing and DTP programs; a new structure that allows development of Add-Ins (some of which are included on this disk); the ability to import and export dBase compatible files; 19 new Time, Financial and Statistical functions; string handling functions including lower/upper case conversion, concatenation, trimming, string comparisons, look-up string tables, and more; user-definable functions; expansion of the macro buffer to 2k; HP LaserJet and 24 pin printer graphics support; cell auditing, which lets you point to a cell and have all other cells which are linked to it be highlighted; the ability to save default settings; new file merging options; graph data labels; the ability to display negative amounts in a different color, and more and more...

This new version of As-Easy-As is Disk #107 in the Software Store on page 23.



Reader Feedback



Some Thoughts on Software and Hardware Solutions

Well, I finally decided it was time to write. I really look forward to receiving the "jrNewsletter." I become quite anxious as I don't get until the 2nd or 3rd week into the month. It has proved to be a very informative source for the PCjr owner and I'm discontinuing subscriptions to other computer magazines.

I bought my PCjr used. It included the original PCjr monitor, keyboard w/cord, IBM compact printer, 1 joystick, 640K, BASIC cartridge, DOS 2.1, parallel printer attachment, manuals and some software for \$600. From PC Enterprises, I have added a 2nd 5 1/4 360K floppy drive, numeric keypad, combo cartridge, PCjr mouse/PC Paint Plus, jr ROM clock and a V20 chip. I also have a Panasonic KXP1080i dot matrix printer. Since the additions, I have found that I can run almost all IBM programs. (Reading instructions, practice with tutorials and learning as much as possible about the basics helped a lot, too.)

That brings up two issues. There is a lot of confusion and mystery about which add-ons to buy, from which company offering these products and at what point you should buy a new computer instead. I am considering a speed-up board, more memory and a hard drive. I figure that I already have around \$1000 invested and I think it's a great machine for the money.

Your jr Power Pack and Power Pack II disks are extremely useful additions. There were a couple of programs that I could not get to run with my current configurations and they did run using files from those two disks. Your compatibility disk does provide a good guideline for choice of programs.

A lot of tips, etc. from your publication worked fine for me and a few did not. But your readers must understand that it is impossible for all solutions to handle so many differently adjusted systems. I think you do a pretty good job pulling useful information together. Sometimes we have to just get our feet wet and experiment a little. (Like I use the following to print files-read.me, .txt, .doc-at the A> prompt: copy filename.ext LPT1.)

For new users, shareware is probably the best source of software until they decide what they want. I also subscribe to "Big Blue Disk," which I consider a bargain. Many Public Libraries offer rentals of programs at very reason-

able prices which gives users a change to try before they buy.

Most programs that would not run for me were because a modified DOS disk could not be used (so creating problems with memory) or the graphics portion. (It's only been a few.)

I'm a strong advocate of buying where I may return. We should patronize the companies (stores, mail-order, etc.) that offer good customer service and support. (I write a letter to them if I'm not satisfied.) And I return my business only to the ones that don't laugh when I tell them I have a PCjr. A few almost went into shock when I explained I have 640K and two drives. In the year I've owned my PCjr, I've noticed an increase of respect for this machine. We must continue to let them know we are out here. Many software companies themselves are not aware that their programs will run on an updated PCjr (and I let them know that, too).

I am listing what programs will work on my machine as it is set up:

IBM Writing Assistant
DacEasy Payroll (256K)
DacEasy Light (256K)
Springboard-The Newsroom (256K memory, but copy protected)
Intuit-Quicken (256K)

Timeworks-Data Manager (256K)
Timeworks-SwiftCalc (256K)
Timeworks-WordWriter (256K)
Timeworks-Partner (256K)
(I found Timeworks fairly easy to use and will work on 1 drive-2 better:)

ValueWare PC PowerPack
(Word, Calc, Filer-256K, 1 or 2 drives and very inexpensive.)

Avery-List & Mail
Funk Software-Sideways
PrintMaster Plus
NewsMaster II (easy publisher)
Spinnaker-Better Working Eight-in-One
Original Print Shop & Print Shop Companion (128K)

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Reader Feedback

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The New Print Shop (requires 512K) (great added features)

MicroProse-Solo Flight

Salinon-Special Days

Accolade-Mean 18

Mindscape-Success with Math

Mindscape - Certificates & More

(Special Note-Do not assume that just because some programs from a company will run on the PCjr, that all their programs will. Indoor Sports didn't, but they made exchange.)

High Tech Expressions-AwardWare

(Their Print Power, no)

The Learning Company-Reader Rabbit & Writer Rabbit

ComputerEasy-Math Climbers

SmartWorks-Grade A Vocabulary

Davidson-Word Attack

IBM Address

Lotus

First Publisher (Works better with mouse)

And, of course, jrNewsletter offers numerous excellent shareware programs.

I hope you continue to publish some beginner articles. It didn't take me long to figure out that I needed to understand autoexec.bat and config.sys. And I was amazed to learn the changes I could do to make things run smoother. No matter how long a person runs a computer, it seems that each time I turn it on, there is something new to learn and try. I think the reason there are so many PCjr's in use still is that they seem to make operating a computer easier to use and understand.

Cynthia L. Buckner, Battle Creek, MI

Tips for Game Players And Patch for Ultima V

I am a new subscriber to your magazine, and am happy to say that it has been an enormous help for finding new hardware as well as patches for my favorite programs. After reading the letter from Michael Chandler in your August issue, I decided to try writing my own patch for 16-color Ultima V and I have succeeded. Enclosed is the patch as well as instructions. Unfortunately, it requires either a hard drive or ramdisk of 112k or that you cut a notch into your original disk to replace the Tandy driver.

I also read in the same letter an item concerning three-voice sound. The technique I currently use, which I have tested on Battle Chess, SSI's Forgotten Realms series, and

Sentinel Worlds, is as follows:

- 1) At the DOS prompt enter Cartridge Basic.
- 2) Once it starts, type SOUND ON and press enter. Then type SHELL which will take you back to DOS (Make sure DOS is still in the drive, or it will be aborted).
- 3) Run any program which you suspect supports three-voice sound.

By the way, to get three-voice sound for Sentinel Worlds, copy the Tandy sound files from your original disk to your play disk in the following manner:

```
COPY A:\FMPLAY\SONG???.KT B:\FMPLAY\SONG???.SNG  
COPY A:\FMPLAY\SFXWAR.KT B:\FMPLAY\SFXWAR.EXE
```

Ramon Redondo, Deerfield, IL

EDITOR'S NOTE: We'll be adding the Ultima V patch to Jr Patches (Disk #56) when the new version is ready, probably next month.

Tips Help PCjr User To Solve Disk Drive Problems

Although my PCjr withstood the recent 7.1 earthquake, it started to act up during the next few weeks with multiple errors in reading disks. When I booted it up, the check system progressed perfectly until it came time to read the disk and then a multiple of different things happened.

I have a Racore second disk drive with added memory besides a 128K side car memory. In desperation I removed the side cars and the second disk drive, looked around vacuumed out dust, checked all the connections and put everything back together. The system still would not boot up DOS so I decided to switch the disk drives. Two hours later my computer was back together, but now the B drive worked as the A drive and still would not read the DOS disk.

Finally, I scanned through my copies of the Jr Newsletter and found an article in the Sept/Oct 1988 issue, "Rotate Your Disk Drives", which explained about changing the "jumper sleeve" which I had not done. Reading on I found another article in the Sept/Oct 1989 issue, "Fix Disk Drive Problems."

I am happy to say after a few swipes of alcohol my PCjr booted up and here I am a happy hacker again! I will keep my drives in place for now as I hesitate to take everything apart again at this time.

Thank you for the information you give in your newsletter; it saved the cost of repair and/or a new computer, and am so proud I fixed it myself!

Patricia Kaufman Rhodes, Soquel, CA

EDITOR'S NOTE: We're glad to hear of yet another PCjr user who saved his/her computer from the trash heap by

showing a little perseverance (and with a little help from Jr Newsletter)!

Internal Modem User Gets Equalizer To Work

Today I "cracked the code" for using the Charles Schwab & Co. Equalizer software.

My set-up is as follows:
PCjr with hard disk drive
PCjr internal modem
IBM DOS Version 3.30
PCjr Cartridge Basic

The key to getting it to work is in the modem set-up of the System Setup menu, as follows:

Equalizer Version 1.5

Modem: Other

Enter modem dial command [14]:

*D

NOTE: Press <Ctrl>A 14 <Return>, this will put an asterisk in the first position of the dial command, then enter D <space> <Return>

ASCII decimal 14 is the equivalent of <Ctrl>N. All command lines on the PCjr internal modem must begin with a command character. The default command character is <Ctrl>N

Does the modem support DTR to hang up phone? Answer: YES

Equalizer Version 2.0

Modem: Other

Enter New Modem Name: IBM

Change Modem Commands? Answer: YES

Enter Modem Init Command: <14>F 4!

NOTE: Space between F and 4! This command will set the modem for 8 bits, 1 stop bit, no parity.

Enter Modem Dial Command: <14>D P (or <14>D I)

NOTE: D P is tone dialing, D I is pulse dialing. Don't forget the space after the D.

Enter Modem Reset Command: <14>I

NOTE: This will place the modem in the power-up default state.

Baud Rate: 300

Com Port: Com1

This is my first contribution to the Jr Newsletter.

Malachy A. Fallon, East Windsor, NJ

The Tax Man Cometh

Wondering whether to do your taxes on your PCjr?

Most tax preparation software should run on PCjrs with sufficient memory, but here are three that got high praise from PCjr users last year at this time:

Amtax
Sylvia Porter's Income Tax
Turbo Tax

Of the three, Amtax received the highest praise, but all three were given high marks by the PCjr users who used them.

Lap Link Transfers Info To Convertible Fast

A few comments:

1. I have purchased a PC Convertible and was pleased to see that it has a video adaptor which is able to be directly connected to a jr monitor.
2. I use Lap Link from Traveling Software to connect my PCjr to the PC Convertible and have found it very compatible and useful. Transferring files and data at 115,000 baud makes things happen quickly and neatly.

I.J. Konrad, Big Rapids, MI 49307

More Tips On Installing And Using A 3.5" Drive

3.5" disks - What the instructions do not tell you.

1. Most installation kits supply two face plates, one black; one grey. The grey one is for ATs, is approximately 1/8 inch wider than the black and will not fit in the jr.
2. I have replaced my one and only drive with a 3.5" drive. Using DOS 3.3, I can read and write to a 720K disk as A:. But, A: will not format 720K. Using "Device=Driver.Sys /D:0" in your Config.Sys file will install a logical drive as drive C: (if you have other drives including RAM drives, it may be some other drive number, on booting screen will display "Installed External Disk Driver for Drive C (or whatever)"). Then with Format.Com in A: enter "Format C:" plus /s and /v if desired. Computer will prompt you to change diskettes when required.

James T. Miller, Carson City, NV

Take Control of SimCity -- If You Can!

By Carl Haub

Every once in a while, a program comes along that really breaks the mold or leads to the creation of an entirely new genre of entertainment programs. Flight Simulator is certainly one of those and it really never has been surpassed. King's Quest set the standard for wonderful graphics combined with interactive fiction. Now SimCity has probably founded a new branch of simulation software.

What is it? That's what I wondered as I read the box at the local software shop. At first, I was ready to dismiss it as some sort of arcade game, noting the Godzilla-like creature on the box about ready to take a large bite of the Transamerica building. But reading the rest of the box convinced me that this was worth a \$35 risk. Boy, was I right!

SimCity's appeal lies in its beautiful color graphics and the fact that you design your own city and then try to manage the thing. If that sounds somewhat boring, it's not. You can really get into this! Be warned, this one can be habit forming.

SimCity comes on two disks and will run from a single disk drive after installation. The box says 512K is required, but some PCjr setups may need 640K. Color is only available in Tandy and EGA modes so you must have the Tandy mod installed to use color. The CGA mode for non-Tandy equipped jr's comes in a high definition black and white; the black and white mode's resolution is needed for the detailed screens and is more or less satisfactory until you get the Tandy mod. But you'll really want to use this program in color.

Installing the game is simple. Put disk #1 and type "install;" the program will prompt you for use of joystick, video mode, etc. With this program, you must use separate program disks for CGA or Tandy if you have more than one computer. This process will result in a single program disk which contains the program files and the color and sound options you selected. A second, blank, disk should be held in reserve for saving the cities you design.

Start the program by typing "simcity." At the main opening menu, select, "START A NEW CITY." On the next menu, elect "Easy" mode; the program will now say "now terraforming" to tell you it is creating a new map area for you to use. When completed, you will find yourself looking at a map with green forest areas, blue rivers, and brown turf with a set of icons on the left side of the screen. Now what?

The first step is to "zone" areas for your future population, called "Sims" in the manual. There are three basic types: residential, commercial, and industrial. (HINT: keep these zones in approximate balance; the number of residential zones should about equal the sum of the two other types, commercial and industrial.) Residential zones are



where the Sims live, commercial zones are where they work or buy things, and industrial zones where they work.

Placing zones involves picking up icons with the joystick or mouse and plunking them down where you wish. (HINT: leave space between and among the areas since this initial small village will become the central city of tomorrow and you'll need the room for more roads and rapid transit lines. As soon as you zone an area, a symbol which looks like a lightning bolt will flash on each one. This indicates that the zones are without electrical power. Sooo...you must build a power plant. This is where your consideration of the budget begins to come in. You begin with a city treasury of \$20,000 and all building you do will cost something. Zoning areas costs \$100 each, but build-

"Reading the box convinced me that this was worth a \$35 risk. Boy, was I right!"

ing a power plant will hit you for \$3,000 if select coal, \$5,000 for nuclear. At first, choose coal even though it pollutes more. A coal plant will also only power about 50 zoned areas while a nuclear one will power 150, but the nuclear comes with a slight meltdown risk.

Having built the plant, all that's left is to hook it up to the zones with the power line icons. (HINT: locate the powerplants away from residential and commercial zones; they increase pollution, thereby lowering property values and the taxes you will collect.) At this point, the Sims will begin to move in! The zones will "develop" by themselves; at first, houses will appear in residential zones, small businesses in commercial, and small factories in industrial. As time passes, these will develop into high rises, condos, and heavy industry -- IF your city proves successful.

Now, you will probably be prompted on the message line to build roads and/or rail systems. At this point, begin building roads to connect the residential zones to work centers. (HINT: don't ignore rail transit, in fact emphasize it as much as possible.) Six or seven residential areas along with an equal number of commercial/industrial zones make a nice nucleus of a city and building it might have consumed much of the first year.

The passage of time in SimCity is measured in "years," beginning in January 1900. At the end of each calendar year, you, the mayor, can check to see how you're

doing by hitting Ctrl-U. This will bring up the "Evaluation Window" which will offer a summary of your performance in the past year. Is the population growing? How about your approval rating by the Sims? What problems do the Sims see as the most important? If crime is seen as a big problem, you may need to build one or more police station. (HINT: here's another reason to leave some room in your city's early layout -- space for police and fire stations, the need for which is not obvious at first.) This annual evaluation is quite important and will provide many valuable clues on policy decisions for the next year

The manipulation of the budget will not be very important at first, but will quickly assume primary importance as your city grows. Your most important policy decision is the tax rate. A very low tax rate, 4 percent or less, will result in much population growth, which may be a good thing or it might be a bad thing if you need to provide many services. A high tax rate, 10 percent or more, will raise money more quickly but can also cause people to leave and thereby erode the tax base.

In my experience, I've found that maintaining an approval rating of about 55 percent on the evaluation screen works fairly well. If the Sims are too pleased, taxes must be too low. (HINT: try keeping taxes a little higher than you think wise and watch your approval rating carefully; you need CASH to build a successful city.)

The trick to creating a city is to design it from the start with as little expense as possible. Your initial \$20,000 budget will immediately lose about \$5,000 just to zone, build a power plant, and construct roads and rails. DON'T build things like stadiums or seaports until they're needed. The Sims will complain when they want a stadium on the message line, and even then, it isn't necessary to build one right away. Your ultimate achievement, due to its high cost of \$10,000, will be an airport, but this is only needed when your city has grown large. Airports and seaports will stimulate commercial growth and are vital for growth to megalopolis status. Seaports, by the way, will attract ships complete with sound effects and airports will result in planes flying over town and -- even a traffic helicopter!

As your city grows, you will learn many valuable lessons for future attempts. Locating too many residential areas together may accomplish little if there are few jobs nearby. Sims don't seem to be long-distance commuters; thus, a careful balance of residential and employment centers will result in a proper balance of "trip generation." Planning as far ahead as possible will reap great rewards. Do not, for example, build roads and railways willy-nilly. They cost money to maintain every year, not just to build, and that will cut into the annual tax intake that you're definitely going to need.

There's more to the features and fun in SimCity than we can get into here, so let's cover some of the mechanics.

(Continued on page 15)

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Drive Turbo-Car or Capture The Crown With New Games on Disk #106

The new GAMES IV (Disk #106) added to the Software Store this month has two amazingly colorful, action-packed games as well as a detailed Star Trek trivia game.

Turbo-Car gives you the thrill of driving a powerful car along a two-lane highway and the challenge of trying to keep from crashing it. You combine high speed with skill in passing slow moving vehicles without hitting on coming cars to build up your score. If you misjudge, your car is destroyed in a horrifying explosion.

You receive points for driving fast and a 250 point bonus for each vehicle you pass successfully. An extra 60 seconds of playing time is awarded for each 10,000 points (although we never got that good).

Turbo-Car is controlled via the keyboard. Hold down the Shift to accelerate, upshift with the up arrow, and down shift with the down arrow. Left and right arrows steer the car when moving. The graphic detail is almost commercial game quality and the car's response to keyboard control is fast.

Return to Kroz

This is a sequel to the popular Kingdom of Kroz arcade-type game on GAMES III (Disk #101).

Return to Kroz has the same 16 color action, but boasts many new features. There are dozens of new play-field objects (like spells, traps, creatures, treasures, terrains, etc.) that make this one even more exciting than the first one in what may be a long series of Kroz games.

In each game you must navigate through dangerous chambers, solving puzzles and avoiding pitfalls. Collect gems, whips, chests, nuggets, tablets, keys and scrolls to aid your progress. These game are as much strategic as they are pure arcade fun. And the sound effects are terrific.

Trek Trivia

This one will test your Star Trek knowledge. Those of you who have followed what may be the most popular tv series ever will find this entertaining.

What type of crystal is used to power the engines of the Enterprise? What is Mr. Spock's first name? How fast is warp 2? What does the Prime Directive prevent the crew of the Enterprise from doing?

Did you know that Dr. McCoy's medical instruments were actually modified salt and pepper shakers? Or that it was Leonard Nemoy who developed the idea of Mr. Spock's Vulcan nerve pinch (so as to make Spock less violent)? Or that the Enterprise is 947 feet long? Or that Joan Collins, Terri Garr, and Ricardo Montalban all appeared in a Star Trek episode? Or that the Enterprise was named by

Captain James T. Kirks father! It's all in Trek Trivia!

(All three of the above mentioned games are on GAMES IV (Disk #106) in the jr Newsletter Software Store, page 23.)

New Game Variety Disk Has Three Good Ones

EDITOR'S NOTE: This review of GAMES III (Disk #101), was supposed to have been in the December issue, but it's too long a story to tell you why it wasn't. So, although many readers have already ordered it based on the short description in the Software Store, we thought those of you who haven't tried it yet would like to know more about the three excellent shareware games on this disk -- Kingdom of Kroz, Go-Moku, and Zigsaw.

Unlike some of our other game disks, where we have collected similar games, such as card games (Player's Choice - Disk #78), board games (Super Board Games - Disk #55) and others, all three games on this new disk are quite different. For want of a better description, we're calling this one Games III.

Kingdom of Kroz

The most action-packed game on this disk, Kingdom of Kroz, was developed by Scott Miller, who won a national programming contest for this game. It's easy to see why. The arcade-like action of a character moving through obstacles and being pursued by enemies is complex and interesting. There are 25 different levels, each one with a new layout and a different combination of help and danger. You must try to maneuver through these levels, picking up valuable objects, trying to keep robbers from taking your gems, and using your only weapon, a whip, to ward off enemies and break through walls.

Kingdom of Kroz has three skill levels, a pause feature that allows you to survey the scene without having to fight attackers, an ability to save and restore games at any point, and a 15 players high score honor roll.

Scott provides a special feature for PCjr keyboards, allowing you to use letter keys to move, rather than the keys on a numeric keypad.

We like this game so much, we put the sequel "Return to Kroz" on GAMES IV (Disk #106), which has been added to the Software Store this month.

Go-Moku

The ancient Japanese board game, called go-moku, is a test of your strategy skills. On a grid 19 by 19, you try to place five pieces in a row before your opponent does. Also known as Pente, this game is a deceptively simple game, which can be played by both children and adults.

Like checkers, strategy can beat a very basic level, or it can become quite complex when two experienced players face each other. Or when you try to play against the computer, who is quite good at this.

Zigsaw

We added Zigsaw to this game disk because its the first good quality puzzle simulation we've seen among shareware games. Although it displays in black and white, the graphics are quite well drawn, and the procedures used to place pieces is very smooth.

This demonstration version of Zigsaw has one puzzle, but others are available for those who register with the author. Registered users also get a program to convert BSAVE, .PIC and .RLE files to zigsaw format so you can create your own puzzles.

You can select from three skill levels, replace pieces put in the wrong locations, view the end result whenever you need to (which was quite often in our case), and save the puzzle at any stage so you can come back to it later.

Games III is Disk #101 in the jr Newsletter Software Store, page 23.

Guide to Computer Terms

(Continued from page 2)

binary

Refers to base 2, a numeric notation in which there are only two digits, 0 and 1.

BIOS

An acronym for Basic Input/Output System, the programs stored in ROM which provide a low-level interface to the devices attached to the PCjr, such as the video screen and the keyboard.

bit

Short for binary digit, a bit is one digit in base 2, which can have only one of the values 0 or 1. This is the smallest unit of storage in any computer, and all information is stored as a series of bits.

board

A board containing electronic components, such as the system board that contains the nucleus of the PCjr. Also refers to add-on circuit boards, such as the internal modem and the disk controller.

boot

The process of starting a computer and loading an operating system into memory, generally from a diskette.

Ed Strauss Discontinues MESA 286jr Board

The powerful PCjr upgrade which effectively transformed a PCjr into a 80286 computer has been discontinued by its inventor, Ed Strauss.

Ed, who also makes the popular jr Hotshot memory expansion unit, reports that although many people were amazed and satisfied with the MESA 286jr, others found it would not operate properly, especially with Racore memory expansion units.

He also says there were static electricity problems during installation of the boards. As a result of these two factors, he decided the product would be too difficult for him to maintain.

For those who were able to install and run it on their PCjrs, the MESA 286jr has generally lived up to its promises, as we reported in the November 1989 issue of jr Newsletter. So it is with great sadness that we have to report that the upgrade that would make your PCjr run at 12 mhz has been withdrawn. However there is always the hope that more innovative PCjr enhancements will emerge from the mind of Ed Strauss in the future.

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"The World" Displays Maps And Even Tracks Hurricanes

The World is a shareware program that will display any area of the world on your PCjr's screen and will zoom in from satellite-distance views to close-ups.

We were so impressed by The World's educational value that we added version 2.60 to the software store this month as Disk #105.

To give you an idea how it works, the main menu displays as follows:

- 1 - Select by LAT and LONG
- 2 - Select by large area name
- 3 - Select by area of EUROPE
- 4 - Find using CITY or COUNTRY name
- 5 - Capitals of the USA
- 6 - National Capitals
- 7 - Other CITIES of note
- 8 - Enter new info on Hurricanes
- 9 - The Global view
- 10 - Point at a location
- 11 - Approximate distance between Cities

You select any of the above options and you will soon have a map of your selection drawn on your screen as you watch.

For example, select 10 "Point at a location" and you will be given a Mercator map of the world along with a pointer which you can move to any location. Press Enter and you'll see a view of the general area in which your pointer was located. Press Enter again, and you'll begin a five step zoom-in process. Each key press will give you a closer view of the area. When you get to step three, the names of cities will begin to appear. The first time we tried it, we ended up with a map of North Africa which showed a city called Ouagadougou, the capital of Burkina, these were both unfamiliar to us, so we got out the atlas and found it to be quite accurate.

There are more features to The World than we can describe here, but here are a couple of them:

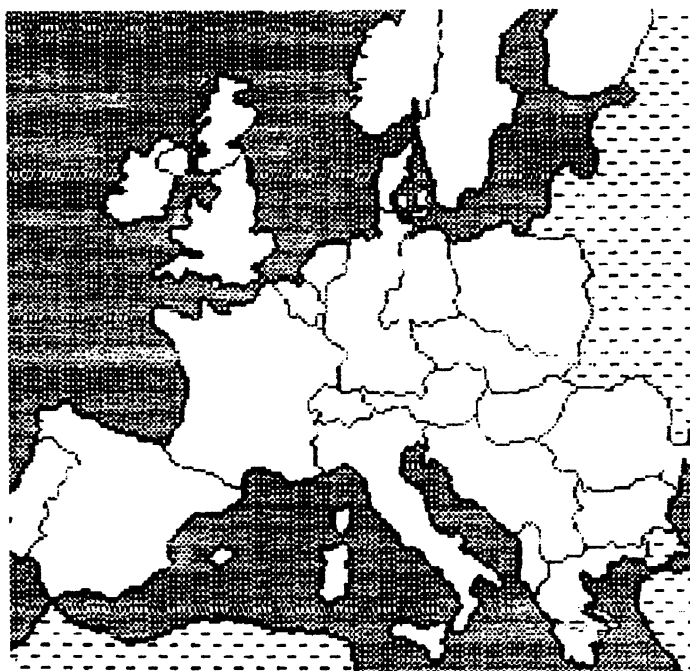
City finder:

Type in the name of any city or a combination of letters and WORLD V2.6 will search its Data Base (and a custom list of your own, if you like,) for the combination of letters you have entered. It will then tell you what it found and ask:

"[W]orld, [A]rea map, [S]elect again or [L]ook some more"
"W" is the default and centers a global view on the city
"A" centers an small area map on the city chosen
"S" sends you back to reenter a name
"L" continues the search for another match

Global view:

Asks for a latitude and longitude of the point you want



at the center of the screen. If you default Lat and Long WORLD V2.6 does its best to center the world on whatever you had selected last in any of the available views.

Hurricane Tracks:

When you zoom in on an area, you will be able to ask The World to show you the hurricane tracks for that area in a given year. You can also keep your own log of hurricane tracks for future years and The World will include them in its selections.

With all of its features, you feel as though you're operating a world viewing center right from the keyboard of your PCjr. Its an enjoyable and fascinating experience for almost anyone.

To order The World V.2.6, please circle Disk #105 on the order form on page 23.

PCjr User Begins South Florida User Group

Jack Vinik of Delray Beach is starting a User Group dedicated to PCjrs. He is now in the process of contacting other PCjr users in the area and would like to hear from you, if you're interested.

User groups can be a great source of support, both in terms of learning how to get the most from your PCjr, as well as having a chance to trade PCjr stories, tips and local sources for repairs, software and information.

Contact Jack Vinik, 950 NW 26th Ave., Delray Beach, FL (407) 276-2116.

New Text Utilities Are Your Powerful Helpers

We hope most of you have learned to love utilities as much as we have. In spite of the dull sounding word, utilities can really help you do a lot of things easier and faster.

With Text Utilities (Disk #103), you will have a set of powerful helpers for performing many tasks with text files.

Many readers are familiar with one of the handiest text utilities ever made, called LIST.COM. We provided earlier versions of this utility on our "Best of jr Newsletter" disks because it allows you to easily read and scroll backward and forward through any text file. You can also search through text to find any word you want, which made it ideal for quickly locating PCjr subjects on the newsletter disks.

Our Text Utilities disk has the latest version, V.7.0, which is a major update of this already great utility. The update actually provides three versions of itself - small, medium and Plus -- so you can select the one that has the features you'll need most.

Here's a partial list of the new features in V.7.0: Phone dialer, two file display toggle, text search through many files, select files from directory display, wildcards in search function, adjustable windows for scrolling two files at once, expanded help screen. If you liked any of the earlier versions, you're sure to flip over this one. And if you haven't experienced the pleasure of using LIST.COM yet, you're in for a real treat.

Also on the Text Utilities disk:

SDL V.4.2 - Will display and/or print directories sorted just about any way you like -- alphabetically, by size, date, extension, in two, four or six column formats. Handy uses of SDL, in addition to its display features, are to print disk labels or to send the output to a file in order to create a master catalogue of files on many disks.

FGREP V.1.71 - Is the fastest text search utility we know of. It will quickly search all the files on a floppy disk, the subdirectory of a hard disk, or all files. A new feature in this version allows you to create a file listing the names of the files for FGREP to search (a handy feature when you think about it.)

COPYSAFE - Prevents you from copying over a file of the same name, unless you want to. This simple, but sometimes life-saving utility will warn you when you're about to overwrite a file, or files, of the same name as the one you're copying. You then type Y (Yes) to continue copying over the file, or N (No) to avoid overwriting the file.

COPYFILES V.5.3 - Is a file copying utility with many features, including the ability for you to type the names of several files on the command line at once. It has many more features which add power and versatility to the copy command.

To order Text Utilities (Disk #103), please use the jr Newsletter Software Store order form on page 23.

ZIP File Archiving Is New Popular Standard

We decided to add PKZIP to the Software Store this month because more and more Bulletin Board Systems across the country have switched from ARCD files to ZIPed files, so you need PCUNZIP to extract them.

PKZIP V.1.02, which is now on Disk #104, is the latest version of this popular and useful utility.

PKZIP is the program that compresses files. This shrinking process is often referred to as data compression. Terms you will see during the compressing process are Storing, Shrinking, and Imploding. PKZIP also handles all file maintenance including adding and deleting files, as well as reporting on technical information from within the compressed file.

PKUNZIP is the program that uncompresses or extracts compressed files. In addition to extracting a complete ZIP file, it can selectively release individual files, show files on the screen for fast viewing, or print them out on a printer.

PKZIP also includes software to create self-extracting files.

To order PKZIP, please circle Disk #104 on the order form on page 23.

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The Ultimate Utility (Part 2)

By John King

I hope you were so intrigued by 4DOS, the COMMAND.COM replacement which I reviewed in my column last month, that you gotten a copy. It's Disk #102 in the Software Store. This month we'll examine 4DOS installation options and several applications.

4DOS installation

In part one, we covered the installation of 4DOS as a memory resident shell. In resident mode, 4DOS uses 55-58K more RAM than COMMAND.COM depending on the version of DOS. If this is more than you can afford, you may be able to use swapping mode.

With swapping, 4DOS occupies only 2-3K more RAM than COMMAND.COM when you are running other programs. Swapping allows 4DOS to drop out of normal memory when you load another program and then reload itself when that program ends. This is what COMMAND.COM does. It's why you get the "Insert COMMAND.COM disk in drive..." message when you exit some programs if you booted from a floppy disk.

Unlike COMMAND.COM, 4DOS must save ALIASES and SETDOS settings specific to the current session. It does this by creating a 4DOSSWAP.000 file either on disk or in EMS memory. After you exit the other program, 4DOS reloads itself using the 4DOSSWAP file.

Swapping is implemented by installing 4DOS through the loader program 4DOS.COM. Assuming you are booting from a hard disk C, simply add this line to your CONFIG.SYS file.

```
SHELL=C:\4DOS.COM /P
```

When the shell statement is executed, 4DOS.COM will load 4DOS88.EXE (or 4DOS286.EXE on 286 and 386 based computers) and create the 60K swap file 4DOSSWAP.000 on disk or in EMS memory. (That's memory above 1 megabyte.) COMSPEC will be set to C:\4DOS.COM automatically, so it will not be necessary to include a SET COMSPEC line in your AUTOEXEC.BAT file.

There are several limitations on the swapping mode. First, it requires DOS 3.0 or higher. With DOS 2.1, your system will lockup while booting. Second, if you swap to a floppy disk, the system will crash if the swap file disk not in the drive when the application program ends. That's generally too risky to be useful. Swapping is only practical on systems with a hard disk or EMS memory, and PCjr's don't usually have EMS memory.

It's tempting to consider swapping to a ramdisk, but there's noway to come out ahead. The ramdisk must be large enough for 4DOS.COM (9K), 4DOS88.EXE (51K), and 4DOSSWAP.000 (60K). This requires 120K of RAM but

saves less than 60K compared to the resident mode. Swapping is best for hard disk users.

On another point, 4DOS comes with a batch file to automate installation, but it runs only under DOS 3.0 and above. The installation is so simple that you are just as well off doing it manually anyway.

Now that you have 4DOS installed either in resident or swapping mode, let's see what you can do with it that's fun and useful.

4DOS Special Commands

The SETDOS command allows you to configure 4DOS for your particular needs. The cursor setting feature is of particular interest to PCjr users. Due to a bug in the ROM BIOS, the PCjr cursor sometimes becomes a solid block instead of the normal line. The command SETDOS /S6:7 in your AUTOEXEC.BAT file will retain the normal cursor which starts on line 6 and ends on line 7. You can also try other start and end values between 0 and 7 to see if you like other cursor shapes better. As another convenience, SETDOS /V0 will make ECHO OFF the default, so all your batch files won't have to start with an ECHO OFF command.

SELECT is a wonderful new command which works with internal and external commands to provide a point and shoot menu for that command. SELECT COPY (*.*) B: will list all the files on the current drive, so you can mark the ones you want copied to drive B. Furthermore, they will be copied in the order you marked them, so you can create a special sequence of files on the target disk. Suppose you need to edit a number of batch files because you have converted to 4DOS. If your text editor is ED.EXE, SELECT ED (*.BAT) will give you a menu of all the batch files and load into the editor the ones you mark for modification. Now, that's helpful. SELECT also works very well with DEL, TYPE, and LIST.

The COPY CON FILENAME command to create a text file won't work with 4DOS under DOS 2.1. (It's fine with DOS version 3.0 and above.) Fortunately, the 4DOS TEE command is an acceptable alternative. TEE FILENAME will let you write batch or other textfiles.

4DOS Aliases

ALIAS is one of 4DOS' most powerful and helpful commands. It allows you to create your own commands which can be as complex as small batch files. Because aliases are held in memory, they operate quickly without having to access a disk drive first.

We have already discussed the use of the SELECT command with COPY. Here is an alias to make that a new internal command.

```
ALIAS SCOPY 'SELECT COPY [%1] %2'
```

(Continued on page 18)

Sim City

(Continued from page 9)

The program will run from one disk drive and will prompt you to insert a data disk upon which your saved cities are stored. The program package also comes with eight "scenarios" already set up for those who wish to jump in with both feet right away. You can, for example, be city manager for a Tokyo which has just been attacked by a monster, a Hamburg just bombed in January 1944, or a Bern, Switzerland choked by traffic. These "scenarios" give you the benefit of an "instant" city to play with. On one or two drive systems, it's best to copy these to the program disk (there is room); they are the files with the extension *.PSN.

SimCity uses convenient pull-down menus for many of its major functions and many of these are directly available from Alt and Ctrl keystroke commands. The Options menu contains several options that you'll want to activate right away. On 8008-based machines like jr, turn on "frequent animation" and set "speed" to "fastest."

At first, you will probably also want to turn off "disasters." These little devils are included just to make your life as mayor more interesting. Disasters include tornadoes (a little tornado actually crosses the screen), earthquakes, and plane crashes (only if you have an airport). One of these involves all sorts of bulldozing and rebuilding, so you had better turn this option off until getting somewhat familiar with the game.

Your task as mayor is made somewhat easier by a series of pull-down maps and graphs (Ctrl-M and Ctrl-G, respectively) which help you observe trends and pinpoint problem areas. Colorful maps show crime patterns, traffic density, and areas of population growth and decline. This information, combined with the information in the graphs are of great help in deciding where and when to spend city funds.

Building a city is one thing, but it would also be nice to be able to print its picture. The program allows for that in two modes: a quick one page printed map gives a nice overview or a six page "poster" prints a highly detailed image which you could tape together and mount on the wall if you were especially proud of it.

SimCity uses "off disk" copy protection. Thankfully, the disks are not copy-protected themselves. But, from time to time, you will be asked to retrieve the name or population of a city from a four page booklet that is printed on very dark red paper (so it can't be photocopied, I guess). This is a bit of a pain, to be sure, but it sure beats copy-protected disks. Just DON'T LOSE THE RED PIECE OF PAPER. One bad feature of this method in SimCity is that you will be asked to refer to it more than once after starting the program; that doesn't seem fair.

One of SimCity's appealing features is its ease of initial use. You can get right into it right away and begin to learn

strategies. You can even get to be a fairly good city manager right away, but it may be quite a while before you're a great one. Thus, SimCity would seem to have it all: engrossing action, great graphics, and longevity -- you won't master it for sometime. SimCity is a product of Maxis Software, 1042 Country Club Dr., Suite C, Moraga, CA 94556 (415) 376-6434.

PCjr Autsetup Disk Is the REAL Disk #99

Yes, PCjr Autsetup, the disk that automatically makes separate PCjr boot disks with the right config.sys and autoexec.bat files for your PCjr, is really Disk #99. And Games III, which we mistakenly numbered Disk #99 is really Disk #101.

As we expected, PCjr Autsetup has proved to be a very popular disk and many readers ordered it when it was first announced in the December issue. But we had to send notes back to those who ordered Disk #99 from that issue in order to be sure they wanted PCjr Autsetup instead of Games III.

Both disks are great, but they're quite different, so we didn't want anyone to be disappointed. The numbering of our disks is now correct. PCjr Autsetup is Disk #99. Games III is Disk #101.

We apologize for any inconvenience the numbering error may have caused.

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CompuServe's PCjr Forum

(Continued from page 1)

The message section of the forum, item 2 on the main menu, is usually very interesting. It is here that people ask or answer questions, give-out news, information and tips about the PC Junior, and offer Juniors and related equipment for sale. Each message bears a number, the sender's name, who the message is sent to (many are not sent to anyone in particular), and the subject of the message.

Once you are in the messages area of the forum, you have a choice of composing a message, sending a message, reading all of the messages, or reading messages after searching and selecting a subject, sender, or recipient. Usually, there are a series of messages - often called a "thread" - on any particular subject, and these are in effect a discussion about the subject. On a CompuServe session in late November, as an example of the type of messages you can expect, there were discussions about:

Fixing problems with ageing PCjr color displays. Running the program "John Madden Football" on Junior. Where to obtain memory expansion and replacement disk drives for Junior. Installing a Mesa 286 expansion on a PCjr, and speculation if it would allow Junior to use the OS/2 operating system. Running Wordperfect 4.2 on Junior. Details about the pin assignments on Junior's serial port. Running ProCom 2.4 on Junior, and where to get a program (on CompuServe) called ProComJr.ARC to setup ProCom on a PCjr. Diagnosing a problem with a Tecmar expansion board. Questions and comments about the mysterious L port on Junior. Is there anything that connects to it?

Another very useful area of the forum (Choice 3 on the main menu) contains the libraries of text files and programs. There are eight libraries, each to be picked from a submenu, where you can find instructions, hints and tips, reviews, and programs. Each library covers a particular area of interest, such as hardware, tips and techniques, entertainment, and graphics. Once you are in a library you have an option of looking at a directory of the library files, browsing through the files, uploading a new file, or downloading a file from the library.

Each file has a header containing the file name, the date submitted, number of characters (bytes) in the file, and the number of times the file has been accessed (either read or downloaded). If you select the DIRECTORY option, you will see only this header for each file in the Library. If you select BROWSE, you see the header, plus a list of keywords and a paragraph describing the file. When you find a file that you would like to obtain, you usually select the download option and use your communication program to transfer the program to your computer. Some text files in the libraries can be read on the screen without downloading. If you want to contribute to a library, you would use the

upload option.

To give you an idea as to what is available, here are some brief descriptions of some of the files in a few of the libraries:

Library 3, Tips and Techniques:

BASICJ.ARC How to use Cartridge Basic with memory expansion cards. FIXBAS.ARC How to fix BASIC and BASICA to run on Jr with a cartridge. CARTCK.ARC A program that reads the commands inside PCjr cartridges. SIERRA.ARC A patch to allow the 512k versions of King's Quest IV and Leisure Suit Larry II to work on a 640k PCjr. MFS213.TXT Instruction on fixing Flight Simulator, Ver 2.13 to work, with scenery, in Double Performance mode. JRRES.DOC How to make and install a reset button for PCjr. JRBT21.DOC Instructions to modify your Boot disk to start Jr in the 80 column mode, with keyclick on. I48FIX.ARC A program to correct some problems when using a PC type 83 or 101 key keyboard with Junior. VIDEOF.DOC A text file explaining how to configure Junior's monitor to work with some problem programs.

Library 5, Entertainment:

PRESLU.ARC A Cartridge BASIC game based on the TV game "Press Your Luck". CREEP.ARC A text adventure game in Cartridge BASIC, with music. JRQUIZ.ARC A game to test you knowledge about PCjr. JRSPCH.ARC Several programs for the PCjr Speech attachment. SWJR.ARC A PCjr version of the public domain program "Spacewar". SEAHNT.ARC A computer version of "Battle-ship", optimized for Junior. JRTR00.ARC A PCjr version of the public domain game "Paratrooper". YAHTZE.ARC A computer version of "Yahtzee" written especially for Junior. BARDTA.ARC A patch for "The Bard's Tale" to use 16 colors on Junior. WOF-GA.ARC A game based upon the TV

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show "Wheel of Fortune".

Library 6, Graphics, contains files of pictures ranging in subjects from Garfield to a map of the United States. Many of the pictures utilize the 16 color mode of Junior.

Library 7, SysOp's Desk contains a few files and programs to help use the PC Junior Forum. There are a couple of files offering tips on downloading files to a PC Junior. The SysOp (short for SYStem OPERator) is the person who oversees and manages the forum.

Files with the ARC extension have been archived (compressed) to cut down on their size so that they can be downloaded quicker. There are several Public Domain and Shareware extraction programs (such as PKXARC) that will make the programs useable after you have downloaded them, and some of these programs are available in other sections of CompuServe if you don't already have one. Files with a TXT and DOC extension require no further processing. Usually these files are not programs, but are text files containing helpful information.

The fourth item on the forum's main menu, Conferencing, doesn't seem to be used much. In the Message section of the forum, messages are posted (similar to posting a message on a cork bulletin-board) and can be read hours, days or even weeks later. On the other hand, conferencing is similar to talking on the phone. In Conferencing, there must be at least two people talking to one another in the same time period. When you log into the IBM Jr Forum, the main menu shows how many people are conferencing, and I have yet to see anyone using this feature.

The Announcements from the sysop - item five on the main menu - contains general information, news and help on using the PC Junior forum. Changes and new additions to the forum are shown in this section, so it is a good idea to occasionally look at it.

Item six on the main menu, Member Directory, is a list of other forum members, and their interests. The directory only includes those members who choose to add their name to the list, so not everyone who is a member of the IBM PCjr forum is in the directory. When you select this area from the main menu, CompuServe displays a submenu. The first three choices on this submenu are for adding your name and interests, modifying your existing entry or deleting your name from the directory. The last three choices on the submenu are used to search for members. You can find members by their user ID, by their name, or by their interests. For example; in late November you could have entered the search string "Turbo Pascal", and received the names of three people who listed this programming language as one of their interests.

The last choice (Item 7, Options) on the main menu allows you customize and change the way CompuServe messages and menus appear. Throughout this article I've described the forum's menus, but you can select an op-

tional mode which bypasses the menus and allows you to operate by typing in commands. This is a little faster than the menus, but you have to know what you're doing.

That completes our tour of CompuServe's IBM PC Junior Forum, but there are several other forums that can help out PC Junior owners. Almost all of the files in the PC Junior forum are just for Junior, but other IBM forums, such as the IBM New Users Forum and the IBM Software Forum, have material of interest to PCjr owners. If you see a program on another forum that looks interesting, but you are unsure of its compatibility, the PC Junior Sysop will test it, if you ask, before you spend download time on it. PC Magazine has several forums in CompuServe, including one that contains the utilities they publish in their magazine. Finally, quite a few software companies, including Buttonware (PC-File), Quicksoft (PC-Write) and Broderbund (lots of games), can be contacted through the PC Vendor Forum.

It is probably not worthwhile to purchase a modem just for CompuServe's IBM PC Junior Forum, but if you already have a modem, or could also use it for another purpose (Such as accessing a local bulletin board, or to connect with another computer user.), then I think that it is definitely worth subscribing to CompuServe and using the IBM PC Junior Forum. You will get some useful news, information and programs, and it is another way to let the world know that there are still a lot Junior users.

Connecting To CompuServe

The CompuServe Information Service is a nation-wide information service for over 500,000 computer users throughout the country. From CompuServe you can get stock prices that are only 20 minutes old (or 12 years old if you prefer), read reviews of computer software and hardware, reserve airline tickets, download computer programs, play games, read soap-opera summaries, obtain the latest weather reports and forecasts, and buy just about anything that you can think of.

There are four things that you must have, in addition to a computer, in order to use CompuServe; a modem, a communications program, a telephone connection, and a subscription to CompuServe. A modem is a device that translates the digital signals produced by a computer to audio signals which can be sent over a telephone line and it also converts audio signals back into digital signals. Most modems will work with a PCjr, but you may need an adapter cable for your PCjr serial port to make the connection.

The communications program allows you to connect with another computer or to a network and transfer and receive data through the modem. The program will make the connection, and both capture and download data from

(Continued on page 19)

The Ultimate Utility

(Continued from page 14)

Now, SCOPY A:* .EXE B: will provide a menu of all the EXE files on drive A for you to select the ones to be copied to drive B. Note that replaceable parameters, %1 and %2, can be used just as in batch files. The new command is enclosed in back quotes to let 4DOS know this is all one alias. The use of brackets instead of parentheses will speed up copying.

We can improve on SCOPY by adding error checking. We'll use the IF command to test whether a target, %2, was specified. If you don't specify both source and target, this version will prompt you.

```
ALIAS SCOPY 'IF %2! = ! ECHO Format: SCOPY
[d:\]source [d:\]target^ IF NOT %2! = ! SELECT COPY
[%1] %2'
```

Be sure to type this all on one line without hitting the Enter key until the final back quote. It is spread over several lines in this newsletter only because of the narrow columns. The caret, ^ (Shifted 6), separates commands which would be on separate lines in a batch file. You might also create analogous SDEL and SLIST aliases.

4DOS internal commands with several options can be modified using aliases to provide the choices you want. I like disk directories to be listed in two columns, show hidden files, and pause when the screen is full. DIR /2HP will do this in 4DOS, but this alias in my AUTOEXEC.BAT file makes life even easier.

```
ALIAS DIR *DIR /2HP
```

DIR B: will now provide the display I like for drive B. No replaceable parameter is needed because the drive designation is just appended to the end of the alias. The asterisk is required because the new command has the same name as an existing 4DOS command. Back quotes are optional because no replaceable parameters or multiple commands are used.

Here's an alias I call LF to advance the paper one line in my printer. Redirecting ECHO. (ECHO period) simply sends a blank line to the printer.

```
ALIAS LF 'ECHO. > PRN'
```

The next alias prints a list of all the files on a disk in compressed (17cpi) mode on an Epson compatible printer. I cut the printout to fit in the disk sleeve for quick reference. (Ctrl-Xe7 means hold the Ctrl key, press X, release Ctrl, presse, and press 7. Alt-143 means hold the Alt key, type 143, and release Alt.)

```
ALIAS DLABEL 'ECHO Ctrl-Xe7Alt-143 > PRN ^ DIR %1 >
PRN ^ ECHOAlt-146Ctrl-Xe6 > PRN'
```

DLABEL A: prints a list of the files on A. Here's how DLABEL works. An Epson printer switches into compressed mode if it receives an ASCII 15 and back to normal when it receives ASCII18. 4DOS uses some of the first 30 ASCII characters for special purposes, so they cannot be sent to the printer directly. However, if the printer is first switched to Graphics Set 1, ASCII 143, 128+15, will have the same effect as 15, and ASCII 146 will have the same effect as 18. The command to switch to Graphics Set 1 is Escape 7. Escape 6 returns the printer to Graphics Set 2. Finally, the Escape character, ASCII 27, can be sent in 4DOS by ECHOing Ctrl-Xe to the printer.

Another alias is useful if you have applications which leave colored borders when they end. The 4DOS CLS command doesn't clear borders on CGA monitors. (This is a small bug which I have reported.) Fortunately, MODE CO80 does the job, and this alias makes it automatic. MODE.COM from DOS must be available.

```
ALIAS CLS MODE CO80
```

If you run cartridge programs such as BASIC which are called from the command line, it will be necessary to first load a secondary copy of COMMAND.COM. You can do this in a batch file or an alias like this one for BASIC.

```
ALIAS BASIC 'SET COMSPEC=A:\COMMAND.COM ^
A:COMMAND /C BASIC %1 ^ SET COMSPEC=
A:4DOS88.EXE'
```

If COMMAND.COM or 4DOS88.EXE are on drives other than A, substitute the appropriate drive letter.

Once you have created a number of aliases, you can list them by giving the ALIAS command without any parameters. Aliases can be edited with the ESET NAME command in which NAME is the name of the alias. Finally, you can delete an alias with UNALIASNAME.

ENHANCED BATCH FILES

A special enhancement for 4DOS batch files is provided by KEYSTACK.SYS. This device driver uses only 1K of RAM and is installed by adding the line DEVICE = KEYSTACK.SYS to your CONFIG.SYS file. The KEYSTACK command in a batch file will pass keystrokes to any other command, batch file, or program called.

Since KEYSTACK is a resident device driver, it is faster than the PC Magazine utility, KEY-FAKE.COM, which does the same thing.

Here is a small routine you can add to your AUTOEXEC.BAT file. It displays the date and time, neatly underlined, if your system has a clock chip.

```
@CLS
@KEYSTACK 13
@DATE
@SCREEN 1 0
@ECHO -----
```

Let's go through the commands. @ prevents a command from being displayed even if ECHO is ON. KEYSTACK 13 puts an ASCII 13, the Enter key carriage return in the keystroke buffer. DATE displays the date, and time as well in 4DOS, and pauses for a new date or carriage return. Since KEYSTACK provides the carriage return, the batch file continues. SCREEN 1 0 moves the cursor back to the second line and first column. Note that lines are numbered 0-24 and columns 0-79. Finally, the ECHO overwrites the second line with 27 hyphens.

KEYSTACK can be used to enter any keystrokes you normally give at the start of a program. For instance, you might use it to move past an opening screen right to the dialing directory in your communications program.

The BEEP command sounds a tone of specified frequency and duration through the computer's internal speaker. You can use different tones to signify different results from a batch file, or just to have fun. You can even play a simple tune. Try this batch file which I call ADESTES.BAT.

```
REM O' Come All Ye Faithful
```

```
ALIAS B BEEP
```

```
B 392 6 ^ B 392 12 ^ B 294 6 ^ B 392 6 ^ B 440 12 ^ B 294 12
```

UNALIAS B

Type all the characters starting with B 392 6 and ending with B 294 12 on one line before hitting the Enter key. By placing all the BEEP commands on one line, the tune plays without long pauses waiting for another line to be read.

On a more practical note, text display in 4DOS batch files is very fast. Put the command TEXT on the line before the text and ENDTEXT on the line after. With TEXT/ENDTEXT, you do not need to have an ECHO or REM before each line of the text.

By contrast, COPYING files is slow in 4DOS. There is more checking of the target drive than in DOS, and this slows the whole process. If you have to copy several files in a batchfile, place all the commands on one line for optimum speed.

Well, that wraps up 4DOS. Now, you know everything I know about it. I wonder what Tom Rawson and Rex Conn will add in future versions.

(This article was originally published in the San Francisco PCjr Users Group Newsletter. John King, president, can be reached at (415) 472-7035.)

Connecting to CompuServe

(Continued from page 17)

CompuServe. When the program captures data it just stores text from CompuServe directly to memory or on a disk; when data is downloaded the communications program uses a standard protocol (such as XMODEM) to transfer binary data and check for transmission errors. Usually I capture everything in CompuServe, so that I don't spend time in CompuServe reading. I can later load the captured text files into a word processor or text editor and leisurely read it or print it out. There are a number of good, low-priced communications programs that will work with Junior, many of which are in the jr Newsletter Software Store, and often when you purchase a modem, a communications program is included.

Of course you must have a telephone connection close to your computer in order to complete the connection.

The last item that you need, a subscription to CompuServe, is available from a number of different sources and is surprisingly inexpensive. CompuServe has a membership kit, available for a list price of \$40 (Sometimes available for about \$25 by mail-order), which includes a \$15 manual and \$25 on-line usage credit.

CompuServe has access phone numbers in virtually every US city; including Pocatello, Idaho, which isn't exactly a city, but it is where I live. I understand that there is an 800 number you can use if there isn't a local access phone

number. Very large cities have several access phone numbers which support a variety of modems and baud rates. For more information about CompuServe, you can call them at 800-848-8990. (For more information on telecommunicating with your PCjr, see "Your PCjr Can Connect You to a Vast New World," January 1989, page 1, and "Low Cost Introduction to Modems," May 1989, page 11.)

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PCjr PATCHES V.5.0 Patches to fix software that ordinarily won't run on PCjrs. V.5.0 adds patches for Prodigy, Telix V.3x, Bard's TaleII, Maniac Mansion, Designasaurus, California Games, and F-19. Also patches for Flight Simulator V.3.0, Loderunner (V-20 chip), Arctic Fox, Managing Your Money V.3, Autocad, King's Quest IV (early 512K version), KQ II (PC ver), Turbo C, Quick BASIC V3-4, Starflight, Advanced Flight Trainer, Double DOS, Bard's Tale I, Turbo BASIC, and BASICA. (Disk #56)

Jr Newsletter Software Store

This software is the best public domain and user-supported software for the PCjr we've been able to find. All software has been tested on our PCjrs and is highly recommended. Some of these programs are equal to or better than commercial programs costing hundred of dollars. These are offered for you to try at \$5.95 per disk. Some shareware requires additional payment if you continue to use it. (Date after "Reviewed" indicates issue in which review of that disk was published.)

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PC CALC PLUS. V2.0 More advanced than PC Calc (Disks 5 and 6), this is a very powerful spreadsheet program which includes graphing features. Excellent. 512K (Disk Set #2 (2 disks) \$10.)

PC-CHECK MANAGER. A menu-driven program that can handle multiple checkbooks, unlimited payees and ledger account assignments. Requires 256K. (Disk #25)

PC-CHESS. Two great chess games on one disk! A full-color, many featured chess program with four levels of play, allows such things as switching sides, setting up the board yourself, validity checking, en passant, etc. The other works on color or monochrome, has window showing options it considers before moving, adjustable difficulty level – but a powerful opponent at any level. 128K ok for one, 256K for other. (Disk #44)

PC-DESKTEAM. Provides memory resident notepad, alarm clock, appointment calendar, typewriter, calculator, phone book, auto-dialer. Some say better than Sidekick! Quick, easy, powerful. (Disk #22 V1.04)

PC DOS HELP. Similar to PC-Prompt, but takes up less memory (16K) as a resident program. Geared to DOS 2.1 with special PCjr commands included. 128K. (Disk #24)

PC-FILE III. This excellent database manager will handle up to 9,999 records, such as names and addresses, notes, product descriptions, etc. Uses generic, embedded, soundex and wildcard searches. Global updates and deletes. Sorts on any field. Too many features to mention. (Disk #3 runs on 128K, Disk #4 needs 256K)

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PC-KEY DRAW. A powerful graphics program that allows you to draw, paint, produce slide shows, store and print your work. 256K, two drives. (Disk #37)

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PC-STYLE. Perhaps the best of many programs that help you make what you write more readable. Jim Button made this a very slick, useful tool for improving your writing. It reads and analyzes what you write, then gives you a detailed analysis based upon several useful standards. Fast, easy to use. 128k (Disk #76)

PC-WRITE. This extremely popular word processing software is both powerful and easy to use. A review in PC World said, "PC-Write may well be more versatile than WordStar; it's certainly more straightforward." Version 2.5 runs well on 128K. Version 2.7 has more features and needs 256K to run without the spell checker, which needs 384K. Version 3.02, the most powerful, needs 512K. (Order Disk #1 for 128K V2.5. Order Disks #2A and 2B for V2.7. Order Disk Set #1 (3 disks) \$12 for V3.02.)

PHRASE CRAZE. Based on the TV show Wheel of Fortune, you get to be the guest who guesses the mystery phrases and wins piles of money! The wheel spins to select the amount of money you win for correct guesses. It gets harder with each round you play. You can add your own phrases to this game or try to guess the ones provided on the disk. Lot of fun for adults as well as older kids. 128K. (Disk #46)

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PLAY AND LEARN. Educational games for kids 5-12. Word match games, find-a-word puzzles, word scrambles, and many more made by teachers. 128K, need Cartridge Basic. (Disk #32)

PLAYER'S CHOICE. Six different card games, some easy, some hard, but all excellent. Youngsters can have fun playing Memory or Even-Out, which are quite easy to master. Blackjack is hard to beat, and Poker, which has the ability to modify its play in response to your methods, is a real challenge. Also two fine versions of Solitaire, one with great graphics. Some need 256K. (Disk #78)

PRINT HANDLER. Excellent printer setting utility allows you to set features from a menu. Other software on disk for banners, sideways printing, custom font generator (Epson), print spooler, count pages before printing and more! Will work with most dot matrix printers. (Disk #51)

PRINTMASTER LIBRARY. Two disk set full of graphic images for use with PrintMaster. (Disk Set #3 - 2 disks, \$10)

PROCOMM. This powerful, yet easy to use telecommunications program has become the one favored by more PCjr users than any other. Dialing directory, auto redial, XMODEM, Kermit and other file transfer protocols, auto log-on, DOS gateway, keyboard macros, exploding windows and many other features. The editor of PC Magazine called Procomm "competitive with the best comm programs on the market." Manual on disk. 256K (Disk #15)

RAMDISK. Use ADJRAM to create a RAM disk of any size and adjust its size at any time without losing the contents. Or use JRCONFIG to set up your PCjr. Both programs with complete instructions for creating and using RAM disks on you PCjr. Need 256K. (Disk #75)

REFLEX POINT. Patterned on the TV show Robotech, this game follows the show's storyline, with the Freedom Fighters trying to reach the Reflex Point and destroy the evil Invid Prince. 128K ok. (Disk #12)

SCOUT. Excellent memory resident (or not) file manager, DOS shell. Move, copy, rename, volume label, search, sort, printer control, view files, and more - fast and easy. Best we've seen. (Disk #81)

SHARESPELL. Spelling checker that works independently of your word processor. Can check spelling of any text file with its 52,000 word dictionary. Will also use custom word list you make. Works with all word processors. 384K ok (Disk #94)

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SUPER BOARD GAMES. Excellent versions of two popular board games Monopoly and Risk. Very much like the board versions, except your computer keeps track of everything for you. All you have to do is make the right moves and have fun. 256K. Need Cartridge BASIC (Disk #55)

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THE BEST OF JR NEWSLETTER II. All the major articles and columns from June 1987 through May 1988 issues of jr Newsletter. Subjects cover most aspects of PCjr operations with tips on compatibility, DOS, expanding and speeding up PCjrs, best software, etc. Easy search function finds subjects quickly. 128K ok. (Disk #66)

THE BEST OF JR NEWSLETTER III. Disk contains most of the major articles published in jr Newsletter from the June 1988 issue through May 1989. Articles on compatibility, PCjr hardware and software tips, regular columns, letters from PCjr users, and other informative articles. Utility to search for subjects included. (Disk #91)

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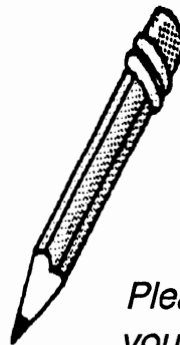
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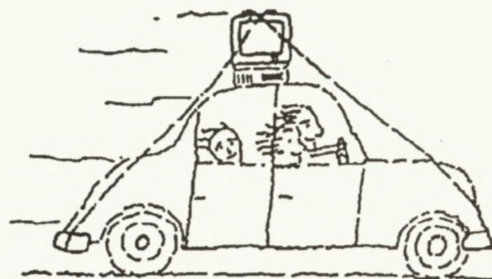
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