

jr Newsletter

October 1992

Romancing the Phone: Adventures in BBSing

by David Wilson

Last month's issue on protocols created such a storm of interest (well, he was a little bit intrigued) that we decided to follow it up with another on the same general theme: Telecommunications or transferring data between two computers. I'm not going to try to cover the subject in great detail in this article; I'd just like to mention a few subjects, other than protocols, that are germane to your enjoyment of your PCjr's communications capability.

The first and most valuable of the "peripherals" (devices that work with a computer but are not themselves part of the computer) you'll get for your computer has to be a printer. In the vast majority of cases,

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PCjr Lives!



Do you know who this is?
(See page 9 for details)

the usefulness of your PCjr depends on your being able to print "hard copy" of what you've created with your spreadsheet or word processor - it doesn't do your kid much good to spend several hours writing that perfect paper if he or she has to take it in for the teacher to read encased in a PCjr, now does it? Anyhow, get a printer first. It's a necessity, not a luxury, and we'll discuss types and levels of printers at another time.

The second goody you can get is a modem. It's a gadget that permits your computer to talk to others and to exchange information with them over a telephone line, and it can expand your horizons in a hundred different ways. With this little jewel you can do a number of wondrous things for very little cost--a definitely unusual feature in these

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Beginner's Corner

Helpful Tips for Downloading Files

By Dave Tursan
(Metro PCjr Journal)

OK, so you got a modem and a communications package and called into a bulletin board and read the file list. Well, now what do you do?

Clip this checklist and paste it on the wall above your modem, it will come in handy the next time you want to bring files down in your PC. The files you want are available by downloading from the Board. To download this software you will usually do the following:

1. Choose option "F" from the main menu. A files menu will appear on the screen. You can see the categories of files available by choosing the "L" option from this menu. You can see the individual

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files in each category by choosing "L" followed by the number of the directory you want.

EXAMPLE:L;2 will list the names of all the files in directory number 2. For multiple directories, L;1;2;3;4 etc. You do this because in order to download you MUST KNOW THE EXACT file name of any file you wish to download.

Now choose option the "D" option to start the download process. You will be asked to give the filename of the file you wish to download. You will be asked what file transfer protocol you are using. Choose XModem. When the BBS prompts "modem send of xxxxx.xxx ready. <Ctrl x>aborts", follow the instructions below for the communications software you are using.

XMODEM DOWNLOADS WITH CROSSTALK XVI

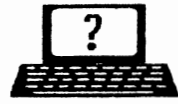
Make sure the "PMODE" parameter in the .XTK command file is set to 2. (If you are having difficulty Uploading, try setting "PMODE" to 1 temporarily.) In order to do a MODEM download, your capture must be OFF.

1. Press escape key for the options menu.

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Questions & 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. Can you tell me what a high density disk drive is and what it does? When I got a second disk drive I had to change all of my software to the S format. If I use a PC Enterprises Configuration Plus Cartridge I am told I can't use my BASIC Cartridge. Why not - and what can I do? I have many programs which require the jr's special BASIC. R. K. Superior, WI

A. In simple terms, a 5.25" High-Density drive stores and reads 1.2 Meg of information when fed the proper (HD) disks as compared to a double-side double-density 360 Kb 5.25" drive. For 3.5" drives the change is from standard 3.5" 720 Kb to high density of 1.44 Meg.

We assume that the "S" is a typo and you actually mean the "/S" switch used with the FORMAT command. We can't see why you had to change anything except the DRIVERS= parameters for the second drive and only if it's a HD drive! There will be no more need now to format with the "/S" switch than before you added the second drive. This is the case whether you have a double- or high-density first or sec-

ond drive. The "/S" switch causes the computer to put copies of COMMAND.COM and the two hidden system files (IO.SYS and DOS.SYS) on the disk so that it can be a booting disk, that's all. If you do not use the "/S", you'll have the additional data space free for program requirements or your own use.

By the way, high-density drives automatically adjust to read standard double-density disks too. Do not try to format your standard 5.25" double-density disks as high-density though, because even if you managed to get it all formatted there would be so many bad sectors the disk probably would be useless. High-density 5.25" diskettes really are a special breed made with special coatings. Some good quality 3.5" standard diskettes however, will format to HD. This is automatic in a PS/2 but you must punch the extra hole in the plastic cover for clones or the jr.

The Configuration Plus cartridge has many good things going for it so a small detail like Cartridge BASIC should not preclude using it. We recommend a simple fix-up: You should have TWO booting diskettes.

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Questions & Answers

(Continued from page 3)

One boot disk should be set up for when the Configuration Plus cartridge is installed. The other should be a "standard" one which will allow booting without the Configuration Plus cartridge and which WILL allow jr's Cartridge BASIC. Remember to reserve enough video RAM for Cartridge BASIC...

Q. Why does Fn-Brk sometimes pull me out of a sticky spot faster than at other times? Doesn't this key combination override operations the same way Ctrl-Alt-Del does to re-boot? P. G. Denver, CO

A. There are real and apparent differences in the way these keys are read when you're at the DOS prompt and even more differences when an application is running. By the way, Ctrl-C is the same as Fn-Brk. Let's start with DOS. The generally overlooked BREAK statement is the reason both Ctrl-Alt-Del and Fn-Brk seem to respond erratically. If the statement BREAK=ON is not in your CONFIG.SYS file or you have not typed it at the DOS prompt, the above key combinations will often take longer to interrupt whatever is executing. If BREAK=ON has been invoked, then the response is quicker and here's why: If BREAK=ON then DOS operations will check between each internal machine language line for the above key combinations and

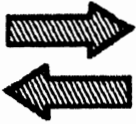
will be able to interrupt itself right away. If BREAK=OFF then DOS only checks between major parts of the active operation. Any application which straightforwardly uses DOS for its underpinnings will act the same. Some programs re-map the keyboard input and for these, all bets are off because the application may not even recognize or block these key combinations! If they do they may use the interrupts but in a way which protects the RAM data first, for example.

Here's an example: BREAK=ON and you're copying *.* from A: to B:

You hit Fn-Brk (or Ctrl-C) and it stops almost immediately but if BREAK=OFF then the file copying continues until DOS is switching from reading to writing (or writing to reading) the next file in the sequence and only THEN does it interrupt the operation. You'll notice this more easily if the files are large ones.

So how do we take care of the ON - OFF part of this to get quicker response? At the DOS prompt simply type "BREAK" then press <Enter> to see which way you're presently set up. DOS responds with either "BREAK is on" or "BREAK is off" and you can then type in "BREAK=ON" or "BREAK=OFF" as you choose. Of course there is a fly in the ointment and it is this; if BREAK=ON then DOS and programs and applications will all run more slowly because of the additional number of times DOS checks for keyboard input.

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Reader Feedback



Reader Upset

I recently ordered 3 disks. One was "Picture This - #141.

Nowhere do you indicate that I must spend an additional \$42.95 to get the complete program. I am really upset about this. I will not order any further disks from you!

G.W. Pasdirtz, Glendale, WI

Editor's Reply: Oops, it appears that this reader (and perhaps others) needs to understand the various software marketing methods, and how the JrNewsletter Software Store fits into these plans.

Much of the software on the market is commercial software, which is written by a programmer, then marketed by a software publisher, distributed to wholesalers and retailers, and ultimately available to you at your local computer store.

As the software goes through each stage of the marketing process, each of the marketers adds more to the price to cover their cost of doing business and make a profit. Under that plan, the software author receives only a very small fraction of what you pay for the software.

To increase their share of the income from software they write, many software authors use the shareware marketing system. It is a system which allows the user to "Try before you Buy," encourages the exchange of programs among potential users, and is based on the

honor system.

Under the shareware system, the author encourages users to place a copy of his program on local bulletin boards and to copy and distribute to their friends. The author also encourages organizations to distribute their programs for a nominal fee which covers diskettes, time, costs of mailing, etc. The authors realize that not everyone who receives a copy of their program will send them a payment, but they have discovered that, if they write a good program and ask for a reasonable payment for the right to continue to use the program, many users will send in the payment and register their software. Shareware authors have found shareware more profitable than commercial software.

In regard to our reader's complaint, we tried not to mislead anyone. In our review of *Picture This* (May, 92, page 15), we wrote, "Users who register their software will get a version which....." That's the reward the author is giving to users who register by sending in the requested payment. At the heading of the Software Store section, we say "user-supported software," and "Some shareware requires additional payment if you continue to use it." We're sorry if you're upset, but that's how the system works. Many authors and users prefer it to higher-priced commercial software.

Spreadsheets

AS EASY AS. Excellent, easy to use, spreadsheet program. Works like Lotus 1-2-3, with all spreadsheet functions. Can load and operate 1-2-3 files. 256K ok (Disk #67)

PIVOT! Allows you to view and print spreadsheet files. The files can be printed either in landscape or portrait on any Epson compatible dot matrix printer. Can be installed as an Add-In Utility in As-Easy-As. 384K recommended. (Disk #136)

AS-EASY-AS V.4.00 This is a MAJOR upgrade of the popular, powerful Lotus 1-2-3 look-alike spreadsheet software. Many useful features have been added to an already full-featured program. Earlier 256K version (2.05) is Disk #67. This upgrade requires 384K. Reviewed 2/90 (Disk #107)

MINICALC. A small, easy to use, spreadsheet program. 11 columns by 22 rows. On-line help function and manual on disk. In addition to performing calculations, will generate bar graphs. (Disk #27)

PC-CALC. A versatile spreadsheet program that can do up to 26 columns of adjustable size and 256 lines. Features on-screen prompts, many math and statistical functions, hidden column capability, many formatting options, 64 character cells, automatic global recalculation, and more. Has some limits on 128K, but still very useful. (Disk #5 runs on 128K, Disk #6 requires 320K and two drives)

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.)

Home & Family Management

FIRST AID TUTORIAL Learn or review your First Aid Lessons with this tutorial prepared by a Certified First Aid Instructor. The time to learn first aid is BEFORE you need it! Reviewed 3/92 (Disk #137)

BITE BY BYTE. Let your PCjr design a sensible diet especially for you, and help you plan meals so you can lose weight without too much deprivation. It's fun to do and it really works! 256K. Reviewed 10/91 (Disk #134)

What's In A Name?

by Dan Hanson

Did you ever stop and think about the variety of names that software companies use for their products? Lotus is not hard to figure out.

They expanded the visible calculator (Visicalc) into a (1) spreadsheet which could serve as a (2) data base and do (3) graphics. They claimed it was as easy to use as, well, you know what.

Rumor has it that the name 456 was registered by a company in the hope of selling the rights to Lotus when the product was upgraded. Unfortunately for that company, they did not register the name Version 2.01. Being bilingual, Phillipe Kahn was able to come up with the next best thing in Quattro.

After a while Lotus got a little fancy. Would you rather spend all day with your hardhat on struggling with Framework or take in a Symphony, or relax with a little Jazz?

Some packages are very pretentious. This may have started back in the CP/M days. A product came out that was not just another word processor but a Wordstar! Look up in the sky. It's a bird, it's a plane, it's Supercalc.

Even the whole subject of Expert Systems seems to be showing off. Perhaps the most ostentatious claim is the current bestseller, WordPerfect. Not WordPrettyGood, but WordPerfect. I always thought that Mormons were more humble than that.

You'd never see a Cleveland State Graphics package but Harvard Graphics is a bestseller. Why should you be content to just do a good job on your spreadsheet when you could Excel? Would you rather do Windows or polish a Gem?

Compare those gaudy names with the more unassuming VolksWriter (beep beep). Multimate sounds friendly. Imagine yourself in an Australian bar saying, "I'll have another Multi, mate." HAL sounds like he's one of the boys and though Seemore might be kind of nerdy, he's okay with me. I've never met Genifer but I'll bet she's broken some hearts. (No, I have not been Fantasizing about her). Peachtree sounds tasty but I hate to entrust my business to a fruit tree. (Sorry, John Sculley).

The Manly Ones

Then there are the macho products. Who would want to go three rounds with something called Powerbase or Clout? Why just buy a programming language when you can have TURBO Pascal or TURBO C or TURBO Basic or TURBO...?

Don't you feel a little unpatriotic in not buying Liberty? Are we supposed to salute when Norton Commander marches by?

I'm really leery about buying the Brooklyn Bridge. How about the mystical products like Revelation or Oracle? Sounds kind of like high-speed Ouija boards. Paradox might appeal to the schizophrenic market and Q&A to all the closet philosophers out there. Solomon sure sounds wise to me. I'm afraid to buy
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PCjr Software

(Order form on pages 29-30)

EDNA'S COOKBOOK. Will organize your recipes by subject, allowing for quick retrieval. Print out sorted collection for your own cookbook. 128K, 2 drives. (Disk #96)

CHECK PROCESSOR. Easy to use software for financial record keeping. Balance checkbook, print expenses by category, etc. 128K (Disk #59)

CALENDAR MATE V4.0 Design and print your own calendars with birthdays, meetings, events, appointments all listed for you. Many features. Easy to use with F1 help key available at all times. Need 512K. Reviewed 7/91 (Disk #115)

SKYGLOBE V2.5. View a map of the heavens customized for your location, date and time. Maps 10,000 stars, 300 with labels, 89 constellations. Many useful features such as brightness selection, zoom in and out, printing on dot matrix, a find feature, and an astounding on-screen demonstration of star and planet movement across the sky. 256K. Reviewed 7/91 (Disk #129)

WILLS. Written by a lawyer, this software helps prepare wills that are appropriate for many different situations. Includes 18 basic types, with many clauses that can be combined to create customized wills for most families. 256K (Disk #124).

FAMILY TREE. Powerful genealogy program with easy to use menu system. Prints handy research forms, checks your accuracy, prints variety of charts and can make your family tree into a book! 256K (Disk #109)

FAMILY HISTORY. Includes complete manual on disk with how-to info on tracing and setting up your family tree with detailed genealogical information. Easy to use and modify as you gather more data. New compiled version runs faster than previous version. 128K order Disk #33 alone. 256K order #33 and #33A.

HOME BUDGET MANAGEMENT SYSTEM. Easy-to-use system for keeping track of income and expenses. Create separate accounts for income tax categories and get a summary at end of year. Provides chart of accounts, transaction reports, sorted ledger entries, etc. 128 K. (Disk #57) Or v. 3.13 for improved screenwriting and disk access speed. 256K. (Disk #57A)

HOME INVENTORY. Taking an inventory of your home might even be fun with this easy-to-use software that takes you through the process step by step. Gives a complete record for insurance purposes. Also good for listing collections. 128K. Cartridge BASIC required (Disk #58)

RESUME SHOP. Makes preparing a professional looking resume easy. Guides you through all the steps of the process with a series of menus and suggestions. One page limit. 256K (Disk #121)

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

SAVE THE PLANET! If you want to do your part to stop destruction of the earth's environment, this disk can help you. Let your PCjr explore this extensive database of information on the major environmental issues as well as what you can do to help. Charts, graphs, background facts, games and demonstrations all related to saving the only planet we have. Need 512K. (Disk #120)

Educational

CAPSWORLD Geography Trivia game on capitals of the world, populations, areas, cities, languages and currency. 128K OK. Reviewed 3/92. (Disk #138)

FIRST AID TUTORIAL. Learn or review your First Aid Lessons with this tutorial prepared by a Certified First Aid Instructor. The time to learn first aid is BEFORE you need it! Reviewed 3/92 (Disk #137)

ARE YOU READY FOR CALCULUS? Excellent review of Algebra and Trigonometry skills you'll need before taking Calculus. Provides help in needed areas. Designed by professor in University of Arizona's Math Department. 128K ok Disk #117)

BIBLE QUIZ. Excellent quiz game tests knowledge of both the Old and New Testaments. Provides answers and biblical references for each question. For one to three players. 128K OK. (Disk #85)

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What's in a Name?

(Continued from page 7)

Knowledgeman. I heard what happened to Adam and Eve.

I like some of the plain descriptive names the best. It doesn't take a rocket scientist to figure out what you do with Pagemaker or PC-Write. I hope Microsoft didn't pay too much to the genius who came up with Word. Even Apple users could figure out what to do with PC-Talk.

The Easy Ones

I always worry when I see titles that suggest I won't have to do a thing. Those are often the most difficult products to master. Is AutoCad really automatic? Will DacEasy let me scrap the accountant? If I hit my knee with a hammer will I master Reflex?

I like Sidekick. I can almost hear Tonto call me Kimosabe every time I hit Control-Alt. Hi Ho Silverado! I wonder who's faster, Clipper or Sprint?

Some names are completely abstract to me. Once I threw my copy of Javelin across the room in frustration, but it did not stick in the ground. Nor did my Condor sprout wings and fly. Tech support was not very helpful with this problem either.

Yes, there is a virtual Tornado of different types of software names. Just AskSam if you don't believe me. Time to Manage My Money so I'd better Gofer now.

[The above article was originally published in the MBUG-PC Newsletter of the Monterey Bay Users Group March 1989]

ViewImage Shows Pictures on PCjr

ViewImage is a shareware GIF*/TIFF/PCX Format Picture Viewer/Printer. It gives a fast display of even large images while needing only 180K of free memory. In addition it allows you to print the pictures to Epson-compatible & HP compatible printers.

It supports a variety of display types - CGA/Hercules/6300/DEB/EGA/MCGA/ VGA/ 8514/A /SuperVGA/VESA SuperVGA, and its auto-recognition feature adjusts pictures automatically for display on the PCjr monitor. The program allows you to manually or automatically scale to full screen. You can select files to display by using the cursor or typing in numbers for a group of pictures.

From the main menu, at the "File(s)" prompt, you can choose GIF, TIFF, PCX or AUTO formats, change the display mode, set scaling options, or change directory. The matching files listed in that directory are shown, and you can type in the numbers of the pictures you want viewed. Or you can type in a range, such as 1-27, to show the first 27 files listed. It allows for the continuous display of pictures with a repeating show by typing "/" instead of enter at the end of the file numbers.

When an image is displayed, you may choose, "p" to send the picture to a printer.

ViewImage is Disk # 145 in the Software Store on pages 29 & 30. For graphics to view with the program, we recommend Disk Set #6 and Disk #146, both reviewed below.

Presidents in PCX

Now is a good time to add these pictures of presidents to our Software Store, with the interest in the national elections and the addition of ViewImage (Disk #145, reviewed above) for viewing on the PCjr.

This two-disk set is available at \$10.00 and includes pictures of all the presidents, from George to George (Washington and Bush, that is!), in a 300 DPI PCX format. You can view them, or print them out, as we did the picture of James Polk, our 11th president, shown on page one of this issue. Presidents in PCX is Disk Set #6 in the Jr Newsletter Software Store on pages 29 & 30.

Mickey Mouse Alphabet

To please and educate the younger set, try this Mickey Mouse Alphabet in GIF format. (We recommend you use it with our ViewImage program on Disk #145 reviewed above.) The Mickey Mouse Alphabet features pictures of Walt Disney characters with an alphabet theme. See Goofy riding in an (A)irplane to Mickey riding a (Z)ebra. If you have upgraded PCjr to VGA, then you will want to use the CSHOW program on disk. Otherwise, use the ViewImage program to see the pictures. Mickey Mouse Alphabet is Disk #146 in the Software Store on pages 29 & 30.

BRAIN BOOSTER. Includes IQ Builder, a program that both teaches and tests your ability to solve number, analogy, synonym and antonym problems like those on IQ and SAT tests. Also includes Algebra and Chemistry programs. For high school and up. 128K (Disk #43)

COMPUTER TEACHER. For those who want to learn how to use DOS commands and to understand basic computer hardware terms, this interactive software will help you become computer literate. Helps you better understand those manuals and computer magazines, as well as how to do more with your computer. 128k (Disk #77)

CROSSWORD CREATOR V3.30. Make your own puzzles up to 36 columns by 22 rows. Many helpful sorting and placement features. Prints out on virtually any printer. 256K (Disk #71)

EARLY LEARNING. A collection of colorful educational games for ages 6-8. Sing-along alphabet, letter match, counting game, maze, pattern matching and more. 128K, need Cartridge Basic. (Disk #48)

EQUATOR. An excellent way to learn and review 35 basic equations used in math, finance and science. Learn to compute the volume of a cylinder, compound interest, or average velocity and much more. Manual on disk. 128K (Disk #20)

GAMES FOR EARLY LEARNERS. Young children like Teach Tots alphabet and counting games. Other activities teach spelling and telling time. For Preschool through grade 3. Cartridge BASIC, 128K. (Disk #63)

HAPPY GAMES. Written by a mother to help her own preschoolers learn on their PCjr, this set of colorful educational games makes learning fun. Teaches colors, shapes, logic, eye-hand skills. 256K and joystick required. (Disk #88)

LANGUAGE TEACHER. Helpful exercises for both French and Spanish language students. Hundreds of vocabulary words and verb conjugations. 128K ok. (Disk #72)

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Questions & Answers

(Continued from page 9)

If you think of a FOR-NEXT loop in BASIC and realize that DOS will check for keyboard input between every statement inside the loop with BREAK=ON but will only check before the loop starts and when it ends with BREAK=OFF you'll have an idea of the extra burden DOS is dealing with. This difference is important enough for some software companies to control the BREAK recognition right in the .EXE or .COM file. Others supply installation files to place a standard DOS BREAK statement in whatever BATch file starts the application! Remember, you may change the BREAK condition at any time and as often as you wish. If, in spite of having BREAK=ON, you find an excessive amount of time for the response it may be there is another reason, such as a buffer emptying. One common example springs to mind here - your printer. If your application, such as word processor, has already dumped the data either to a RAM buffer or to the printer's input buffer, it must empty (by continuing to print) before DOS can interrupt the operation. Actually, DOS has already interrupted the application but the printer is still operating, of course. In this case you may have to turn off the printer itself to stop flow of data to the print head.

Our own system, depending on the language used, is to have BREAK=ON during program devel-

opment when writing the tricky parts so we can break right into the inevitable bugs, otherwise it's mostly OFF for speed.

Q. This may be an odd request, but is there a way other than the key codes plus CHR\$ of BASIC to read keyboard input? I can't seem to figure out a way to make certain key combinations scan in correctly.

R. F. Sioux City, IA

A. You're in luck, the method below should work no matter which version of BASIC you use, interpreted or compiled! Though the implementation of CVI() as we use it in the following may not be too well documented, we have been using it for more years than we care to admit. Some version of the INT-9 patch has to be in your configuration; this is keyboard input diddling. Now, onward!

Make some sort of input trigger, such as a WHILE-WEND, FOR-NEXT or DO-LOOP to test for keyboard input using the INKEY\$ statement. To make sure the input is at least two bytes long, concatenate a CHR\$(zero) which is a nul. Then take the input and convert it to an integer. You can do this even if it is a letter, control, alternate or a combination of keys. Study the following little sample and the REMs then type it into your own version of BASIC to try it out.

```
10 A$=' ' REM clear it
20 WHILE LEN(A$)=0 REM LEN is small and quick
30 A$=INKEY$
40 WEND REM just waiting for key input
50 A$=A$+CHR$(0) REM add nul, now it's at least 2 bytes
60 KVAL%=CVI(A$) REM convert bytes, store in KVAL%
70 PRINT KVAL% REM just to see the integer
80 IF KVAL%=24064 THEN END REM this is Ctrl-Fn-1 key combo
90 GOTO 10 REM depending on BAS version
```

Lines 50 and 60 are the magic here. Line 50 makes A\$ at least two bytes long so that CVI (BASIC's built-in ConVert to Integer function) will have enough to work on. CVI only uses the first two bytes, but two had better be there...

The idea for the rest of the program is to have you try a bunch of keys while the program is running and make a note of the numbers that get printed out when the desired keys are pressed. In line 80, note the value of the integer representing the key input which we chose to END the routine. Use anything you like; KVAL%=27 is the Esc key, for example.

The really nice feature is the way the ordinarily troublesome combination keys such as Insert, Fn-End, Ctrl-K, Alt-Fn-1 or anything else are handled. They will come up with unique numbers which you can use for

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Questions & Answers

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branching or control or whatever! You will be reading and utilizing the actual bytes of data which the computer does internally. Can't get too much closer to the CPU than that and it's pretty crash proof!

The best way to use this method would be to make lines 10 through 60 a sub-routine or a sub-program, depending on the version of BASIC you use, and simply call it whenever you need special keyboard input.

For a real education in systems design try a letter key, then Alt-letter, then Ctrl-letter and see how the numbers add onto the plain letter key! See if you can figure out how the relationships develop - have fun...

Q. I really hate the default white-on-black screen on boot-up. The world in which the rest of my software lives is color and I'd like my DOS screen the same. ANSI.SYS is a disaster because it comes and goes and only operates on the printed characters' foreground and background, making even more of a visual mess. Can you help me?

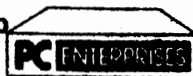
A. Yes, if you're willing to invoke "CLR" instead of "CLS" to clear the screen. Actually you could name the following program almost anything. To do this, be sure DEBUG.COM is available. Type in the data and press <Enter> at the end of each line indicated).

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PCjr Owners!!

Everything You'll Ever Need Plus Much, Much, More!!

- Memory Sidecars – Expand now to 1.2 MB!
- Second & Third Disk Drives which Snap-on-Top
- 3 1/2" 720K Disk Drives for PS/2 Compatibility
- Speed-Up Boards—Increase Speed to 9.54 MHz
- 20, 30, 40, 60 & 80 MB Hard Disk Drive Systems
- 101-Key Enhanced PCjr Keyboards
- Serial Port Compatibility Boards
- Modifications for Tandy Compatibility
- PCjr Compatible Software & Game Cartridges
- PCjr System Units with 128K or 256K
- Diagnostic Service Only \$25
- Replacement Parts and Service



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Questions & Answers

(Continued from page 12)

```
Type DEBUG <Enter>
-N CLR.COM <Enter>
-E 100 2B C0 LE 50 B8 03 00 CD
<Enter>
-E 108 10 B8 00 06 B9 00 00 BA
<Enter>
-E 110 50 20 B7 ## CD 10 B4 02
<Enter>
-E 118 BA 00 00 B7 00 CD 10 B0
<Enter>
-E 120 ** BA D9 03 EE CD 20
<Enter>
-RCX <Enter>
CX 0000
:27 <Enter>
-W <Enter>
Writing 0027 bytes (We're writing
CLR.COM to the disk)
-Q <Enter>
```

Where the ## and the ** are you are to put in the numbers of the colors you would like to have. The ## are background and foreground, in that order. For example, White background and blue foreground is 71, just like in BASIC. Blue background and Bright Yellow foreground is 1E because you must use Hex numbers. Replace the ** with the color you want for a border, using zero and the color number such as 04 for red or 03 for green, etc.

Now at the DOS prompt, whenever you type CLR <Enter> or if CLR is in a batch file, the screen will clear to the colors you've chosen. Be sure your new CLR.COM file is available by having it in your PATH, root, or on your active disk.

PCjr Software

(Order form on pages 28-30)

MATH FUN! A great way to get kids learning how to add, subtract, multiply and divide. Includes a program called Math Tutor which has cleverly designed exercises for kids in Grades 1-6. Also Funnels and Buckets, a nifty math game that makes learning math fun. 128K. Need Cartridge BASIC (Disk #42)

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)

SPEED READ. If you'd like to double or triple your reading speed, and increase comprehension as well, Speed Read can help you do it. It provides instruction and exercises designed to break bad habits and improve reading efficiency. 256K (Disk #90)

SPELLING BEE. A game that builds spelling skills from Grade 3 level to adult. You are an Olympic athlete representing your country. Excellent color graphics. Four skill levels from very easy to very difficult words. Fun way to become a spelling champ! 256K ok (Disk #82)

STUDY AIDS. Three great programs to help students. PHLASH - a computerized version of flashcards which you make and use for any subject. Multiple choice, true/false, and/or fill in blanks. FRACTIONS - a series of interactive exercises in fractions (many levels). And PHRASE - a program that picks out examples of bad writing in any document and suggests improvements. 128K ok (Disk #92)

THE WORLD V.2.6. Fascinating way to see the world on your PCjr! Just use the pointer to move over full screen map of world and press Enter to zoom in on any region, country or city. Many features. Even shows you hurricane tracks by year. 256K Reviewed 2/90 (Disk #105)

TIME TRAVEL IN HISTORY. A maze adventure game in which you have to answer questions about different periods of American History in order to get gold pieces and save your life! 128K (Disk #21)

(Software Store continues on pg 14)

TYPING INSTRUCTOR. Disk contains both PC-Touch, a great typing exercise and speed testing program, and Touch Typing Tutor, a combination of lessons, including finger positions, speed tests and a typing game. 128K ok. (Disk #18)

USAMAP. A program to calculate distances between two or more U.S. cities. Also calculates distance of a storm (longitude and latitude) to a given major U.S. city. 256K (Disk#139).

WIZQUIZ. The Wizard keeps track of your progress in solving math problems that range from elementary level through fractions and negative numbers. Extensive exercises, with scores and times recorded under each player's name. Compete against your personal best as you improve your skills. Grades 4 through adult. 128K ok. (Disk #95)

WORD PROCESSING FOR KIDS. Simple, fun and easy-to-use word processor designed especially for beginning writers. Allows children to express their ideas easily and then print them out in large type on your printer. Colorful opening menus make learning the simple commands very easy. Parents/teachers manual is on the disk. 128K. (Disk #41)

WORD CRAZE. Create your own word search puzzles and print them out for friends and family. Just make the list of words you want in the puzzle and its printed out for you. Or try Quotefall, a unique type of scrambled word puzzle. And then there's a high-level version of Hangman. Just try escaping from the noose in this one! 256K (Update review 8/90) (Disk #87)

WORD GALLERY. Help your child learn to read with this colorful program that presents pictures and words to match. Its fun to use, has four levels, the last with a missing letter for the child to fill in for beginning spelling. 256K (Disk #125).

MATH & LOGIC GAMES. Designed for kids in Grades K-6, but fun for kids of all ages. Six different games can be played against the computer, or with another human. Each game teaches a different logic and/or math skill. 256K required. (Disk #126)

(Software Store continues on pg 15)

Detection And Prevention 101

by Jacqueline Bear Kronenberg

Rachel B., a sophomore at a local college, returned to campus in January after a month-long semester break. She took her IBM PC-compatible computer out of storage, turned it on and found - nothing. Except for a few strange noises, Rachel's computer no longer showed signs of life. A trip to the dealer who'd sold her the computer and \$250 later, Rachel learned that the power supply on her machine had been damaged. The technician who repaired the computer surmised that the damage had been caused by leaving the computer plugged into the socket in the dormitory. The power supply may have been burned out by a surge of voltage.

On the morning of February 8th Austin P. found that the Macintosh SE he'd been using had reported that three of his data disks were "unreadable." Austin was working on his master's thesis for a degree in Education and had taken a month off from his job to devote to completing his thesis.

The previous day Austin had spent four hours making revisions to the nearly completed thesis and made copies of the file containing the thesis onto three disks. Yet each disk he inserted into the floppy drive was pronounced "unreadable." For all intents and purposes, the disks had been wiped out.

Fortunately Austin had another copy of the file containing his thesis

stored on a computer at work and was able to bring it up to date.

Austin later discovered that the floppy drive in the Mac he'd used was defective. It reported all disks inserted as "unreadable," damaging some.

Bob T.'s home computer reported a "general disk failure" with one of his less frequently used data disks. He tested the disk on another computer but received the same message. Since he had no other copy of the disk, several important files were lost.

Kathryn L. was using a Compaq 286 at her college's computing facility when a power failure occurred. All four computers connected to a surge protector with multiple outlets shut down at once. Although the computers appeared to be undamaged, Kathryn lost an hour's work since she hadn't saved.

Life Saving Techniques

As the acquisition of computer equipment for home and personal use increases, the personal computer owner and user must adopt techniques to protect the investment of time - put into creating data - and money spent on equipment. Care of computers and data should become a never-ending exercise in caution and vigilance.

Below are a few suggestions designed to help you get the most from using your computer:

-Be prepared for a "worst-case" scenario. If, like Rachel, your computer fails to boot, or the hard disk drive with all your files crashes, will

(Continued on page 16)

PCjr Software
(Order form on pages 29-30)

Telecommunications

BOYAN. Selected Best of the Year by PC Magazine, this outstanding telecommunications program will astound you with its smooth functioning and innovative features. Supports all protocols. Need 384K. (Disk #61)

JRTELE V2.1. Excellent, easy-to-use telecommunications software made especially for PCjr's, and the PCjr modem. Ideal for beginners, but has enough power and features for most users. Supports 300 and 1200 baud. PCjr internal or Hayes compatible external modems. 128K ok. (Disk #86)

PROCOMM PLUS TEST DRIVE. This is the upgrade of the already powerful and popular Procomm V2.42. Its got many new features including an improved host mode, context sensitive help screens, more powerful scripting. In addition to its power, its very easy to use. 256K (Disk #108)

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)

TELIX V3.12. Powerful, yet easy-to-use program, with variety of built-in transfer protocols. Features Z-Modem one of the most efficient and reliable transfers available. If you're disconnected while downloading, Z-Modem will pick up where it left off when you next log-on, thus saving connect time and telephone toll charges. Need 180K free memory after loading DOS and either two floppy disks or a floppy disk and a hard drive. (Disk Set #4) \$12 for 3 disks.

Art & Music

JR MUSIC MACHINE. If you want to write and play music on your PCjr, this program allows you to do it. Displays music as you write it using jrs 16 colors, and plays music back in three voice harmony. Features allow you to adjust key, tempo, note values, etc. Color Display required. 128K ok. (Disk #62)

Detection And Prevention 101

(Continued from page 15)

you be able to restore your files? Frequent back-ups, multiple copies of files and proper handling of program disks will help protect you from data loss due to equipment failure.

-Save often as you work. The moment you've keyed in something you like, save it. Even if you've just begun to work and don't want to interrupt your train of thought, save anyhow. Like Kathryn, you can lose your data when you least expect to.

-Have a print-out of every valuable file and all your current work. Even if you've just begun to work on a file and don't feel it's ready to print, print it anyhow. The creative inspiration comes only once. A hard copy will at least give you something to copy from in the event your electronic data is lost.

-Make multiple back-ups of valuable files. Keep copies in different locations - at home, at friends' homes or at the office. Austin was spared completely retyping his thesis because he had a copy of the file at work. Update the copies regularly.

-Be careful when transporting floppy disks. Buy disk cases and carry them in a handbag or briefcase. Disks slipped into books slip out and end up in mud puddles.

-Beware of:

» **Magnetic fields.** This includes metal detectors at airports, automated checkout registers, Xerox machines, telephone receivers, paper clips which have been attached

to magnets.

» **Static electricity.** Shocks from winter dryness can destroy a CPU. Mats can be purchased to reduce the shock. Touching another object before touching the computer also helps.

» **Viruses.** Be cautious about taking disks from others and downloading from electronic bulletin boards.

» **Personal negligence.** If you're tired, stop working. A careless keystroke due to fatigue can wipe out hours of work.

I know this because late one night it happened to me. I accidentally wiped out a backup and an original disk with a "diskcopy command" and the wrong source disk in drive A.

Also, don't leave disks in hot or cold cars or in a place where you can sit on them or spill something on them.

-Purchase a good quality surge protector to protect your unit. This means spending \$50 or more. Lower priced surge protectors are often little more than multiple outlet devices. A good surge protector will have monitoring lights which will inform you if the circuit is grounded.

-Guard against turning on small appliances when your computer is on if these appliances share the same circuit. Small appliances with heating elements such as hair dryers, hot plates, small heaters, irons and toasters cause a surge of electricity when they're turned on and off, placing a drain on the circuit. Those who live in multiple-dwelling buildings such as dorms and apart-

ment buildings, where one circuit has many outlets, are particularly vulnerable since they are unable to control what appliances go into use when a computer is on. Although the damage to the computer may not be immediately evident, there can be a long-term repercussions as areas such as disk drive motors are affected.

-Moveable parts of the computer will break down more easily if they're used by different people. Floppy disk drives, mice, keyboards and cables are sensitive to handling. All users should be properly trained in how to handle equipment.

-Use the scientific method to troubleshoot - in other words, try to isolate the source of a problem. At first this might seem difficult given the likely number of equipment failures.

(PCjr users are lucky in this regard because the PCjr has a built in diagnostic system - see Section 6 of the PCjr Guide To Operations for details. Or, press Cntrl-Alt-Ins and watch it work. - ED) Documenting problems as they occur - rather than regarding glitches as isolated instances - will help you trace the trouble. Did one disk work but not another? You might have a defective disk. Did the disk work in one drive but not another? It might be the disk drive. Keyboards and cables are a bit harder to test in the absence of more than one computer of the same type at the same locale, but extra cables (printer, keyboard) should be purchased and kept around "just in case." Defective

cables are often the cause of what appears to be problematic hardware.

-Don't make the assumption that if everything worked OK yesterday that it will work OK today. Keep in mind that all equipment ages and that sooner or later something will go wrong. Moveable parts go out of alignment and electrical components degrade. Even surge protectors may need to be replaced after a year.

-Be sure to handle your computer properly when moving it.

Secure disks in disk drives to prevent damage to the floppy drives; use the "park" command to avoid damage to the heads of a hard disk. Mac users should turn off their computers using the "Shut Down" command from the "Special" menu: this also parks the heads.

-Keep your ears open when you hear others talk about problems with their computers. Some computers are built better than others and last longer. Other models sometimes have a history of problems with particular parts. Also, pay attention when others mention experiences with service centers. You need not necessarily take your computer to the place where you purchased it for service. In fact, there's always a chance the retailer may be out of business by the time you need repairs.

(Or he/she may tell you he/she doesn't work on PCjrs, in which case you should contact one of the PCjr specialists who advertise in jr Newsletter. -ED)

How to Download

(Continued from page 2)

2. Type RX filename.xxx (do not rename!)
3. The download begins.

XMODEM DOWNLOADS WITH PC-TALK III

1. Press ALT-R
2. Type filename.xxx=X
3. The phrase "Holding for Start" will appear.
4. Download begins.

XMODEM WITH QMODEM

1. Press the PgDn key for options menu.
2. Choose XMODEM (item 2).
3. Qmodem will prompt you for a file name.
4. Type in the drive number, filename, and extension.
5. A window will appear with status info concerning the download.

SMARTCOM II

1. Be sure XMODEM is defined on the Smartcom II Edit, Set, Parameters screen. Versions of Smartcom II prior to 2.0 do not recognize XModem.
2. When you get to where the screen asks for a file name, enter the name; press return; then press F1. This takes you to the Smartcom menu.
3. Press 4, for receive file
4. Press 1, for error free protocol.
5. Type in the drive number,

filename, and extension.

6. Download begins.
7. Receive complete xxxx bytes.
8. Press F1 to continue interaction with the BBS.

XMODEM downloads with ProComm 2.4.2 or ProComm Plus.

Be sure on the General Setup screen (Alt-S, No. 4) to have your download path information filled in (#2) and on the same screen, have the XMODEM mode set to normal, (#11). In ProComm Plus, go to the General Setup screen (Alt-S), and choose File/Path Options. Make sure the download path is filled in (C). Escape back to General Setup and choose Protocol Options and set MODEM type to normal (G).

1. Press PgDn--that will open the download window.
2. Choose selection 1 - XMODEM.
3. Another window will open and you will be prompted for the filename.
4. Type in the drive number, filename, and extension.
5. A third window will open showing you how the transfer is going.

Now you have the file you wanted but it probably is zipped and what do you do with it? In a future issue we will discuss zipped files.

Romancing the Phone

(Continued from page 1)

days of bloated prices for almost everything.

Modems themselves have dropped drastically in price over the last few years. You can now get an adequate external modem that will receive/transmit your files and keyboard pecking at 2400 baud. (Sorry we're not discussing what this means this time, but it's what most people still use) for as little as \$39.00 if you watch the ads. Get a "Hayes compatible" not a Hayes modem if price is a consideration, since the difference in price is considerable. Don't get a fast modem if you plan to use it on your PCjr - I don't think PCjr performance at speeds exceeding 2400 baud is dependable, and in any case, you need a hard drive or a large RAM disk to make your downloads behave. You can pick up a PCjr Internal Modem for next to nothing (and in my opinion its over priced even then!), but that locks you into a very slow 300 baud which many BBSs won't permit. You're also very severely limited as to what software you can use with the IBM Internal Modem. If you just want to get your feet wet and are not sure that you'll like modeming, you might want to try it with the Infernal Modem, but I really don't even advise that--I think you'll get a more accurate picture of the real thing by borrowing a 1200 or 2400 baud external modem, plugging it into your Serial Port with a Serial Adaptor Cable, and having at it.

Software? You need some that uses the Hayes Command Set (i.e., "Hayes compatible") but since this is now the de facto standard throughout the industry, you don't have to worry much about this factor. Most DOS communications software runs perfectly on a Junior, but I recommend that you get the smallest possible program that has the level of bells and whistles you want. You can try many of them out without cost to you, since a number of excellent communications programs are available as shareware - either downloaded by yourself or a friend from a BBS or you can order one from the Jr Newsletter Software Store. All those offered there are known to be compatible with the

(Continued on page 20)

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latest version
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Romancing the Phone

(continued from page 19)

PCjr, with only a few restrictions or modifications because of your particular Junior's configuration.

Okay, you've got your modem, got your software, got it plugged in and operating, and you've logged onto the a BBS. There are a variety of BBS programs. Three of the most popular are PC Board, RBIS or WILDCAT! Each of them has its own peculiarities and idiosyncracies. Mostly, the commands are similar for the more common activities such as Up/Downloading, Message Base, Bulletins and other services, but it's a good idea to select the Novice or Beginner option when the program asks whether you want menus dis-

played. Usually, there's an online tutorial and/or a downloadable tutorial file for you to print out and peruse at your own speed. Since the online instructions usually take a good hunk of your allowed time, the latter is a better choice except in panic situations.

A few years ago individuals' passwords were being stolen by unscrupulous hackers (almost a redundancy there!). They were used to gain access to BBSs where the obnoxious thief would proceed to send obscene messages, make outrageous demands, upload nonsensical or booby-trapped files similar to the viruses of today, or try to crash the BBS - and it was all done in the victim's name! The practice has for the most part died out, but



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one of the "damage control" procedures that were suggested then is probably still a good idea. It consisted simply of having a different password for each BBS you frequent and changing them regularly every six months or so. A combination of six or eight random letters such as KIB\$CN8N8JC is preferable to a word with significance to you, but much harder to remember unless you use a script file.

Script files are useful little gadgets that perform tasks for you automatically. They're basically souped-up batch files that you execute from within a program, and their most common use is probably as a logging-on convenience. All of the most popular communications programs have their own script language - indeed, PROCOMM's and TELIX's documentation for the script language is more voluminous than that of the program itself -- and none will work with another's program. Most, also, are far more powerful and feature-filled than the vast majority of us will ever need, but it's something the publishers think they can use as a selling point. At any rate, the better comm programs have a built-in "learn" routine so that all you have to do to write a script is turn on the "learn" routine, perform the necessary steps, then turn it off again. The program will normally then ask you if you want to compile the script, if you want to save it, and if you want it installed. "Yes", "yes", and "yes" gets you a working script which you can then add to your dialing direc-

(continues on page 22)



PCJR MUSIC SAMPLER. A collection of classical music concerts performed with great precision to produce the highest quality sound you've ever heard on your PCjr. Disk includes a separate program to activate Juniors sound generator before running game software to get highest quality sound. 128K ok (Disk #119)

ORIGAMI. Learn the art of Japanese paper folding. This program shows you how, step-by-step, to create amazing animals and other objects just by folding paper. Fun for kids and adults, too. 128K. Requires Basic Cartridge. (Disk #39)

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)

PC-KEY DRAW DEMO. Contains a slide show demonstration which allows you to see the amazing results you can get with PC-KEY DRAW. Helps to learn the many graphic capabilities of PC-KEY DRAW. (Disk #38)

PCJR MUSIC SAMPLER. A collection of classical music concerts performed with great precision to produce the highest quality sound you've ever heard on your PCjr. Disk includes a separate program to activate Juniors sound generator before running game software to get highest quality sound. 128K ok (Disk #119)

PIANOMAN. A great music program! Allows you to write your own music, store it and play it on jr's terrific sound system. 128K. (Disk #36)

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

Picture This A label program which makes address labels with three lines of text and a PrintMaster or PrintShop style graphic on your dot matrix printer. 256K. Reviewed 5/92 (Disk #141).

Writing Essentials

GALAXY. One of the easiest to use word processors we've ever seen, Galaxy has all the features you need to write letters and do most word processing. It has many, but not all, ad-

(Continued on page 22)

vanced features. Its strength is its simplicity, with help menus always ready to assist you. You probably won't even have to read the manual. 256K ok. (Disk #69)

MIND READER. Experience the wonders of artificial intelligence! Use a full-featured word processor that guesses the words that you're about to type. Works like a charm! 128K ok. (Disk #74)

PC-WRITE LITE. The most powerful shareware word processor in a condensed but still incredibly useful package. Unless you need things like microjustification, indexing & mail merge, Lite can do what you need. 384K recommended. Reviewed 8/91 (Disk Set #5) \$10 for 2 disks.

PC-OUTLINE. Organizes thoughts, notes, lists of just about anything. Powerful features create logical outlines, merge with your word processor, customizing allows you to rearrange and manipulate data. Outperforms many commercial programs, says PC Magazine. 128k. (Disk #17)

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.)

SHARESPELL V2.2 This update of popular spell checker has 112,000 word dictionary. It checks your word processing documents for spelling errors and replaces with correct spelling. Works fast and has ability to add your own words to dictionary. 384K. Reviewed 7/91 (Disk #94)

Romancing the Phone

(continued from page 21)

tory and set to run the next time you call that number., (TELEX does not have this feature built in, but there's a stand-alone program that you can use available on most BBSs.)

There's some fascinating stuff that is largely left unread on most BBSs. It's contained in the (B)ulletins area, and there's a wealth of topics that are covered - whatever the SysOp thinks would be necessary for you to know or of interest to the typical visitor to that electronic address., You'll find statements of the policies and goals of that particular Board, instructions on how to use the software, political diatribes, lectures on BBS mores and manners, pleas for help or money or both, charts of BBS usage so that you can plan your calls better, and some just plain ole interesting stuff. Get in and browse around sometime - you may be as fascinated by it as I am.

Doors are mysterious things to most of us, but there is really no need to be intimidated by them. Basically, what they are is a program that actually drops you out of the BBS software and permits you to use another program on the host computer. Thus you can enter a specialized program, such as a database program of items for sale. Here you might leave a message advertising something you'd like to sell or read the messages from others who want to sell, trade, or barter. The Door program keeps you online and in the proper directories on the

host hard disk, and at the same time prevents vandals from invading the FAT table or trashing the files areas - a real concern when you allow someone to roam around on your hard disk.

A specialized door that is now a fixture on most BBSs is the Offline Mail Reader. Here's how it works: you log into the BBS and enter the Offline Mail Door. Here you look over the Conferences available to you, select the ones you'd like to read the messages in, and save your selections so that next time you enter this door, you don't have to configure it all over again. Now you simply tell the host computer that you'd like to download a mail "packet" and wait for a short while as it gathers all the messages that meet the criteria you just established, places them in a specialized compressed file and downloads them to you a block. (The compression most commonly in use in this area seems to be the QWKmail type, but there are a number of others being utilized.) Now you can read them at your leisure, using an "Offline Mail Reader" such as SLMR (Silly Little Mail Reader, a shareware product still available on most BBSs) or OLX (Offline Express, a commercial version of SLMR). There are a bunch of other readers available for the asking - just make sure that the one you get is capable of reading and writing in the same mail format as the packet you've downloaded, or frustration is bound to set in, big time.

Most of the time when you play
(Continued on page 24)

PCjr Software
(Order form on pages 29-30)

Especially for Junior

PCJR MUSIC SAMPLER. A collection of classical music concerts performed with great precision to produce the highest quality sound you've ever heard on your PCjr. Disk includes a separate program to activate Juniors sound generator before running game software to get highest quality sound. 128K ok (Disk #119)

JR MUSIC MACHINE. If you want to write and play music on your PCjr, this program allows you to do it. Displays music as you write it using jrs 16 colors, and plays music back in three voice harmony. Features allow you to adjust key, tempo, note values, etc. Color Display required. 128K ok. (Disk #62)

DOS 2.1 FIX. Patches to fix the bugs in DOS 2.1. Cures most problems encountered when running memory intensive programs. Also patches to run BASIC and BASICA on DOS 2.1 without having Cartridge BASIC installed. 128K ok. (Disk #40)

THE BEST OF JR NEWSLETTER I. The best and most informative articles from twelve issues of jr Newsletter (June 1986 through May 1987 issues) are contained on this disk. More than 50 articles on compatibility, problem solving, software, maintenance, memory expansion, how-to projects, tips on using DOS, and more! 128K (Disk #54)

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)

(Continues on pg 24)

Romancing the Phone

(Continued from page 23)

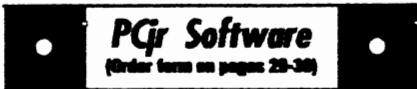
an online game of some sort, you're in a door, as you usually are when you fill out one of the questionnaires that some SysOps delight in putting in their systems. These can be anything from collecting statistics on where people stand on the issues of the day to simply gathering demographics so that the SysOp can tailor his/her system to fit the profile of those who use it most. Investigate these questionnaires - you never know what fascinating information may be lurking behind that Door.

And speaking of games, there are a zillion different ones available to those who have the time and don't mind tying up their phone lines. Many BBSs specialize in offering games, and some are as elaborate

as you could wish. You can be a pirate or a space trader, or a space trading pirate, or a dwarf on a quest or a private detective searching for the infamous Carmen San Diego. In many games you compete with up to fifty other players, but in others you're on your own - the competition is with the computer at the other end of the line.

I haven't mentioned Message Bases much in this article, but would like to mention the ECHO NETS, though, in case you aren't aware of the terrific opportunity these give you for broadening your horizons.

There are a number of associations of BBSs around the country which form a cooperative group of systems called a NETWORK. These organizations set up Conferences pertaining to special interest topics such as Genealogy, Biking, Sub-



BEST OF JR NEWSLETTER IV. For your handy reference, disk has the most informative articles, columns, and tips published in Jr Newsletter from June 1989 through May 1990. Easy to use search utilities provide quick ways to find any subject of interest. 128K ok (Disk #118)

BEST OF JR NEWSLETTER V. The best, most informative articles, columns, reviews, Questions and Answers from the June 1990 thru the May 1991 issues. Includes powerful search utility so you can find and read any subject easily. 128 ok (Disk #130).

THE BEST OF JR NEWSLETTER VI. Disk contains most of the major articles published in Jr Newsletter from the June 1991 issue through May 1992. Articles on compatibility, PCjr hardware and software tips, questions and answers from PCjr users, and other informative articles. Utility to search for subjects. 128K ok Reviewed 7/92 (Disk #142)

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stance Abuse, or just about anything else there is widespread interest in; most successful shareware and many commercial programs have their own Conference in which the author or their representatives answer questions, defend or explain glitches, take suggestions, and announce changes and upgrades. It's gratifying to have your problem solved by the author of the program personally, and even more so to be told that your suggestion is a good one and will be incorporated into a future release. You can learn some new techniques or capabilities that will be of great help to you, and frequently you don't even have to ask a question - someone else has done it before you. There's a wealth of information and some pretty lively

discussion in these things.

How do they work? Well, briefly, there's what happens to a typical message. After it is recorded on the host BBSs, it stays there until it is time for the host to pass it on (this may be daily or at some other specified regular interval), then it is gathered up along with all the rest of the new input to that BBSs, compressed, and transmitted to another BBS, usually a regional center. Here the packet is added to all the other BBS packets that are members of that cell and passed to another regional cell. At the same time, your BBS will be downloading the master packet containing all the messages from all over the country that have been posted since the last time your BBS checked in, decompressing them,

(Continued on page 31)

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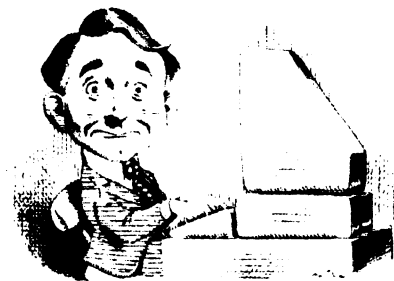
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PCJR COMPATIBILITY DISK V4.0. Tips on how to run hundreds of software titles, includes PCjr compatibility info, tips on running software, and how to make some incompatible software operate. Powerful search feature finds titles quickly and easily. 128K ok. Last update April 1991. (Disk #60)

PCJR PATCHES V6.0 Patches to fix software to run on PCjrs. Most enable 16 colors. V6.0 adds patches for 1 on 1, 688 Attack Sub, Battle Chess, Battle Tech, Boxing II, Genius Mouse, Grand Prix, Indiana Jones, Jack Nicklaus, Knight Games, Paperboy, Prodigy (thru V3.1), Shanghai, Silpheed, Sim City, Space Rogue, Steel Thunder, Strip PokerII, Test Drive II, Tetris, The Games (Summer), Ultima IV, plus new patch to stop disk drive spin. Dozens of older patches, too. (Reviewed 2/91) (Disk #56)



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The software in the jr Newsletter Software Store 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 the 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.

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Spreadsheets, page 6.
Home & Family, pages 6, 7, 8.
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Especially for Jr, 23, 24.

*** NEW * VIEWMAGE.** Picture viewer/printer for graphics in GIF/TIFF/PCX Format. It gives a fast display of even large images while needing only 180K of free memory. Works on PCjr monitor or jrs upgraded to VGA. Reviewed 10/92. (Disk # 145).

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*** NEW * NORTHCAD-3D.** Computer Aided Drafting in 3-D makes professional quality drawings. Requires 2 floppy drives or a hard disk and 512K Reviewed 9/92 (Disk #144).

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(Listing begins on previous page)

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(Continued from page 25)

and adding them to its own Message base for you to read on your next visit. There are regional cells all over the country - indeed all around the world - and you may well see a series of messages on a subject you're following which originate from the four corners of the country and a number of spots in between. The message packets are passed from cell to cell in a prescribed order, and on a regular basis, so there is normally a regularity to the frequency of each contributing BBS's messages. Since much of this regional packet-passing is carried out over long distance lines, it's usually done with automated software (such as ROBOCOM) between, say 3:00 AM and 6:00 AM, or whenever the host feels there is likely to be minimum traffic on the BBS (It doesn't hurt that the call goes out at the time of day with the lowest rates, either.)

The cost of all this long-distance activity as well as the newest and best software and computers, running twenty-four hours a day every day should help explain those constant pleas by SysOps for money. Believe me when I say that no SysOp of my acquaintance has ever made better than break even. Most put in upwards of 20 hours a week of top of their "real" jobs just keeping it up, too, so you have to understand that it's a labor strictly of love. Please keep that in mind when you get

angry because they haven't updated the files in a while, or perhaps left you a reply that was a little bruising to your sensitive nature, or maybe didn't upgrade your status quite fast enough. ("I sent you a check day before yesterday! Why am I still not allowed unlimited downloads?" Because every SysOp in the country has gotten checks that bounced higher than Brasstown Bald... and in the meantime the bouncer is merrily downloading everything in sight, secure in the knowledge that it'll be at least two or three weeks before the SysOp knows it, that's why. Give yourself and the SysOp a break; he or she isn't delaying just to spite you - they just don't know you and experience had been a hard teacher. Be patient.)

In this article, we haven't even begun to mention all the enjoyment you can get from your computer, a modem, and a phone line. There are BBS's that specialize in almost every form of human activity, from space travel to SCUBA diving, from ballooning to spelunking, from Science Fiction to Veterinary Medicine... but you get the idea. You can usually get a listing of all known area BBSs in your area by downloading a file from your local BBS. It usually lists the BBS name, description, equipment, interests, baud rates accepted and other information. But most importantly, they list the phone number. So what's keeping you? Be an intrepid explorer-romance that phone!

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