# New jrConfig Has Many Options

(Part One)

For many years jrConfig has been the most useful program for PCjr users. The newest version is better than ever. Developed through the cooperation of its original author, Larry Newcomb, and PC Enterprises. JrConfig resolves many compatibility problems and easily solves PCjr memory management problems. The new version provides a single device driver that works with all versions of MS and PC-DOS and permits PCjr to recognize all jr specific hardware. It works with all known PCjr memory expansion products. It is available on Junior

In This Issue:

PCjr Lives!
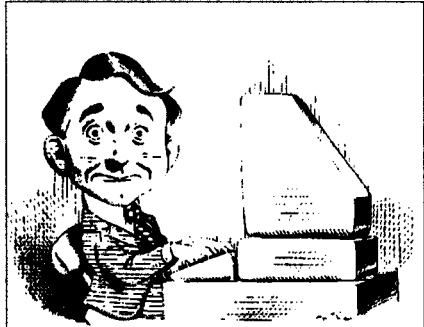
Learning in Life

Learn from the mistakes of others. You won't live long enough to make them all yourself.

Programming Color in B.A.S.I.C.: Tips for Using the Various Screen Modes

by Dick Page

The PCjr especially with Cartridge BASIC) provides lots of options for displaying different sizes of text, different levels of screen definition and clarity, and many various screen coloring schemes. While this allows for a great deal of flexibility in choices, it can also cause confusion and aggravation for fledgling BASIC programmers. The BASIC manual did not lay these choices out in a very clear, concise way. The following descriptive summary charts were written in the hope that

Computers use "ports" to transfer information to and from printers and other peripheral devices. The PCjr has two types of ports (serial and parallel) which can be used to attach a printer.

All industry standard serial ports conform to a specification known as the RS232 interface--and the PCjr's built-in serial port is no different. The PCjr's serial port can therefore be used to attach just about any peripheral which has a serial interface. This includes Hayes compatible external modems, mice and serial printers.

All industry standard parallel ports conform to the Centronics standard which is almost exclusively used to connect printers. For this reason, parallel ports are referred to as Centronics ports, or simply, printer ports.

Before you connect a printer to your PCjr you must determine whether the printer you have selected requires an RS232 (Serial) interface or a Centronics (parallel) interface. This information can be found in the printer's manual.

How to Connect Parallel Printers

Parallel interfaces are extremely easy to connect and operate. If your printer has a parallel interface, all you need to do is purchase a PCjr Parallel Printer Attachment and a cable. Simply connect the Parallel Printer Attachment to the side of the PCjr, then attach the printer with the cable.

How to Connect Serial Printers

Serial ports, on the other hand, are move versitile than parallel ports--and therefore present more of a challenge for PCjr users to get working with a printer, unless, of course, the printer was designed specifically for the PCjr, as is the case with NEC Elf 370 printers.

The first thing you'll need when you connect a serial printer to your PCjr is a cable. Be aware: PCjr serial cables sold by IBM and PC Enterprises will make the PCjr's "S" port "look" exactly like the serial port

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. We get this question so often it is worth repeating. I would like to: (A) adapt a PC joystick to the jr or (B) adapt a jr joystick to a PC. Sometimes it is a Koala Pad or another similar device such as a Flight Yoke. These are all devices which plug into the game port.

A. The information below shows the equivalent wiring connections for each game port. The numbers are marked on the rear receptacle of each computer and on the plug of each device, though you'll have to look carefully because they're really tiny!

```
PCjr ---------- PC or clone
One Stick------ Double Game
    Plug
A04 -- +5v------ 1,8
A02 -Gnd-------- 4
A03 -Y resis #1- 3
B02 -X resis #1- 6
B03 -Trig #1---- 2
B04 -Trig #1a-- 7


Other Stick---- Same Game Plug
A04 -- +5v------ 9,15
A02 -Gnd-------- 12
A03 -Y resis #2- 11
B02 -X resis #2- 13
B03 -Trig #2---- 10
B04 -Trig #2a-- 14
```

The numbers on the left are the "J" receptacles on the rear of the PCjr (The Joystick or Koala Pad cable plugs use the same pin numbers.) The numbers on the right are on the "D" connector of the PC game port. (The cable which plugs into this is also numbered identically) Note that the connections will be made for two joysticks to a single connector on a standard PC but ONLY if the Game Port on the PC supports two sticks! Some do not, in which case the top joystick numbers should be tried first. The information with the Game Card for the standard PC should agree with the above connections. There are a number of unused pins in both plugs and receptacles on the jr and the PC. The above information is from the IBM PCjr Technical Ref. Manual and a PC clone manual. Use this as a reference for trouble-shooting or connections to/from PC/PCjr devices. In other words you may connect either from left-to-right in the schematic above or from right-to-left. This should be a good starting point for all kinds of analog input via the Game Port, so let's hear what you're doing with it!

Questions & Answers

Q. Sent my disk drive to PC Enterprises for repairs, but was informed that the cost is the same to replace as to repair so they don't bother any more. I believe the problem is just that the heads were "sticking" and it got progressively worse until it just wouldn't boot up at all. This might not be a very elaborate repair. Do you have any information on how I might do an inexpensive repair? I am a 67 yr. old lady who enjoys my PCjr, but who needs a little help now and then with the mechanics and electronics. (Ms. S. F.) Porterville CA

A. We suppose you have already cleaned the heads with a cleaning disk and the wet - dry system which is the only one we (Q&A) recommend. These kits can be purchased wherever diskettes are sold. Try a Radio Shack. That being so, you might have to go a little farther, so read on...

If you have the inclination, you might try cleaning the rails using the method we have been using for some time. Just get some denatured alcohol some Q-Tips or other swabs and a pair of tweezers. Carefully look at the rails on which the heads assembly slides and remove any dust kitties, lumps, hair, etc with the tweezers, being careful not to scratch the metal. Do all three rails; the bottom one is difficult but not impossible to get at. Now dampen, don't soak, the swabs with the alcohol and rub the surface yuk from the rails, changing to fresh swabs until the tips come out clean. You must push the heads to each extreme of the travel a couple of times to do a decent job. Push gently, all the way, it's OK.

Next, all the chips which are in sockets should be pressed firmly in with your thumb and the drive can be re-installed. Before you try it out be sure the drive controller card (the one the flat ribbon comes from) is firmly in its socket on the motherboard. Rock it lengthwise a little then push straight down to be sure it's socketed fully.

If the drive works, you're in luck; if it doesn't, you probably should replace it. The latest drives are inexpensive and are considerably improved compared to the originals. Prices are as low as $29.00 plus shipping for known name brands from one company near Boston, Mass., when they're available. They're not always new, but may be factory returns, (fully refurbished) and overruns with full Manufacturers Warranties. Spankin' new they are also available here at $39.00 base price.
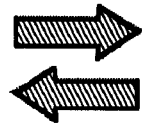
Q. My DATE circuit is out but the TIME is OK. Can this be the Clock chip? It is stuck on 01-01-80. I think this is on the Impulse sidecar. (Ms S.F. again)

A. Usually if the Time function is OK so is the Date on these clock chips. You should first try to reset the Date using the software which came with the Impulse sidecar, then

Reader Feedback

Reader Likes Address Labels With Graphics

I am enclosing some samples of labels with graphics that I print using a shareware program called PMSLABEL by Clint Hasting of Salt Lake City. If you are interested in the program, please feel free to send me a note and I will be glad to send you a copy of the software. The program uses either PrintMaster or PrintsShop graphics to get the effect on the labels.

Thanks for your consideration. I have enjoyed your magazine since 1986. I have just ordered the 20 meg hard drive from SPC and am anxious to have an even better PCjr.

Mike Kennedy, Dellwood, MO

EDITOR'S NOTE: After seeing the labels which Mr. Kennedy produced, we decided that a label program which prints graphics would be an interesting addition to our software store. Please see our review on page 15.

Reader Finds Helpful Salespeople

I was browsing through my local Commodore/Amiga store where the owner is a helpful gentleman--so unlike some Big Blue boys who react rather cool when you mention the PCjr. He mentioned he had a nice printer he would part with for the princely sum of five dollars. Being in the buying mood, I enquired what was wrong with it? He said it was missing a power cord and paper, but otherwise was in like new condition. I knew at once he was talking about the Jr Compact printer. I handed him my five spot as I didn't have a compact printer, and took it home.

A power cord later, and with the addition of some Tandy Fax paper, I was off and running. It prints fine. I already have an Apple Scribe serial printer and an Epson FX-80. So, I'm rather fixed for printers.

Only the Scribe gave me any worry because of the cable that didn't come with it but again a trip to the local friendly computer store, where a cross-connected cable was rigged, and it worked fine. Total cost for all, $60--printer and cable. The Apple people supplied me with a manual free as the company who had sold me the Scribe was in another state and gone into bankruptcy meanwhile. There are a lot of dealers out there that are friendly. A word of advice: pick and choose--it's your money.

Following your advice I recently decided to buy some used parts through your classified ads. I sent to a gentleman from Pennsylavnia for a Racore 2nd disk drive and DMA.

Games

ADVENTUREWARE. Six different text adventures with titles like Island of Mystery, Terror in the Ice Caverns, and Moon Mountain Adventure, all test your wits and take you to strange mysterious places. 128K (disk #14)

ARCADE GAMES. Includes Kong, Pango, PC-Golf, Pyramid and other exciting, colorful games for hours of fun. 128K. (Disk #30)

BOARD GAMES. Eleven different games on one disk! Hours of fun with Monopoly, Yahtzee, Cribbage, Backgammon, Othello, and others. All run great on your PCjr! 128K. Need Cartridge BASIC (Disk #31)

BUSHIDO. Test your skills in martial arts combat. Fighters kick, spin, duck, punch, etc. Requires 256K and keyboard with function keys (Disk #16)

CASTAWAY/S. AMERICAN TREK. Test your survival skills, as the survivor of a shipwreck in the South Pacific. Or as an explorer of South America. Two novice text adventures from Jim Button. Ages 12 and up. 128K. (Disk #53)

COMPUTER JOKER. Disk full of jokes, wisdom, and visual tricks to play on your computing friends. 128K ok (Disk #64)

DOUBLE TROUBLE. Two of the most challenging, highest quality arcade style games weve seen Amazing Mazes and Willy the Worm. Ten different mazes and five levels of play will tie your brain in knots. And Willy, who is the fastest, jumpingest worm youll ever see, will beat you for sure! You can even modify Willy to give yourself more (or less) trouble. 128K ok. (Disk #68)

DUGEONS & WARS. In Dungeon Quest you can choose to be a dwarf, elf, magic-user, fighter or other type of character. You select your strengths and weapons, too. Then you enter the dangerous dungeons on your Quest. Thermonuclear War pits the US vs. the Soviets in a very real demonstration of what a nuclear war might be like. Combat is a strategic battle on the ground. 128K ok. (Disk #9)

Reader Feedback

(Continued from page 5)

He sent me a whole CPU, the Racore unit and a whole group of spare parts for the Racore, manuals, disks and accessories. It was in great shape. I merely shifted out my other unit and kept on computing. The person I bought it from was Steven Monaco; His name is in the July, 91 issue. He may still have some material left. Anyone looking for quality parts should look in back issues and at least give the preson a call. It might just pay off.

I also buy from the commercial firms advertised in the jr Newsletter. For the most part, they act more like friendly Junior owners rather than dealers. Maybe that's what keeps the Junior going.

Joseph J. Price, Charlevoix, MI

Reader Offers Unprotect Disks

I am still here at the same old stand offering a disk full of archived (compressed) unprotect patches. Included is a patch for unprotecting **IBM's Assistant** series. Unfortunately, I am still unable to fix version 2.00 of Writing Assistant, but the patch works well for version 1.00 and version 1.01. For several months after each public announcment in your newsletter, the requests come in steadily, but after a year, they fall off to zero. Perhaps you would be doing your readers a favor by printing it again.

Also, in your February, 1992,

issue there was a letter from someone who was having trouble with the larger memory version of **Writing Assistant**. You might tell him that I am prepared to fix his disk so it will work with his increased memeory. If he will senmd me the two Writing Assistant disks, I will check them out and send them back by return mail.

Clyde A. Dodge, 1075-285 Space Park Way, Mountain View, CA 94043

Unprotecting Basic Files

By Colin Tuttle

If you have saved a BASIC file, for example, YOURFILE.BAS with the protected P option, you can easily deprotect the file using the following command: (from BASIC)

```
NEW
BSAVE ''ZAPPER.BAS'', 1124,1
LOAD ''YOURFILE.BAS''
BLOAD ''ZAPPER.BAS''
LIST
```

The program will now be listed on your screen. If you want to unprotect the file forever, make sure you resave YOURFILE.BAS in the unprotected mode, else you will have to go through these steps again every time you want to list the file. The file named "ZAPPER.BAS" is created by the BSAVE command, and can be called anything.

> **The Software Store (on Pages 29-30) Features Affordable Software for your PCjr!**

DUOTRIS. Two great Tetris-like games on one disk. Similar to the popular Russian strategy game, both of the versions add new twists of their own. Written in Turbo Pascal, both are high quality games. 128K ok (Disk #116)

GAMES I. An assortment of games for hours of fun and excitement. Includes Spacewar, Airtrax, Life, Wumpus, Wizard and more. All good with 128K. Need Cartridge BASIC (Disk #8)

GAMES II. A wild bunch of games to test your wits and skills. Includes Slither, Xwing, Torpedo, ABM2 and Overeact, where you are in charge of a nuclear plant. 128K. Need Cartridge BASIC (Disk #34)

GAMES III. Kingdom of Kroz, an award-winning arcade action game. Go-Moku, a challenging Japanese strategy game, also known as Pente. Zigsaw, the first really good on screen simulation of a jigsaw puzzle. All three on one disk. 256K Reviewed 12/89 (Disk #101)

GAMES IV. Turbo-Car tests your skills at driving a fast car on a two lane highway. Can you keep from crashing? Return to Kroz is a colorful, exciting arcade-strategy sequel to Kingdom of Kroz on Games III. Trek Trivia tests and expands your knowledge of Star Trek. Three great games on one disk! 256K Reviewed 2/90 (Disk #106)

GOLF/SAILING. Two great games! The golf game has three courses, user definable club ranges and a swing control that determines whether you hit a slice, hook or straight shot. Three nine hole courses (Novice, Pro, and Sadistic). In the other game, you try to sail the three legs of the Bermuda Triangle avoiding, if you can, the creeping mists, alien crystals, vortexes and storms. Your boat is equipped with radar, rudder and sail (all of which you control) and an engine for emergencies. 128K ok for sailing. Need 256K for golf. (Disk #47)

MEAN 18 GOLF COURSES. Three excellently designed courses for those who play Mean 18, the commercial golf game. Disk #79 has Boca Woods North, Boca Woods South, both with especially challenging water holes,

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and Kearsage Valley, with fall foliage in full color. Disk #80 has TPC of Avenel, TPC of Sawgrass, with massive sand traps and a tough 17th green on an island, and TPC of Woodlands, which may be the most challenging of all. (Disk #79 and #80)

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)

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)

PINBALL RALLY. A colorful collection of amazingly realistic pinball games. Using the Shift keys as flippers, the games get more and more complex until you get to Twilight Zone, the hardest one of all. Runs on 128K. (Disk #10)

PLAYERS 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 rel challenge. Also two fine versions of Solitaire, one with great graphics. Some need 256K. (Disk #78)

BRIDGE PLUS. Play Contract Bridge Or Mahjong. Realistic bridge practice in bidding and playing against the computer. Good way to practice the game, but need some knowledge of the game or a rule book. Mahjong rules are included on the disk. Requires 256K Reviewed 9/91 (Disk #131)

Questions & Answers

try reading the Date using whatever method you choose. (At the DOS prompt you can just type "date" then press Enter) If this still reads 01-01-80, then the Impulse Clock chip OR the battery on the Impulse sidecar needs replacement. In this case the repair cost should NOT be near the cost of replacement, so check again with one of our advertisers (or a local repair shop) about this service. We recommend the specialists which advertise in the jr Newsletter because we feel they have the experience and parts to do the work most efficiently; they've been doing it for a long time.

Q. Are there any DMA cards for the jr or do I have to go for a full-blown Racore System? Other than software compatibility, what other changes can I expect? P. K.

A. In the standard PC, the circuitry allows the CPU to program the DMA to do data transfers of certain kinds. The DMA chip and circuits take over the data transfer job and the CPU goes back to doing "CPU work" at the same time. Both chips active at the same time, or nearly so. This is a lot like the video chips which keep the text or a picture on the screen while the CPU goes about its business. For this to work certain memory locations must be open to being addressed for the job to be triggered and certain buss lines must be available for the data transfer to take place.

Now comes the tough part. When we are dealing with the jr,

certain address lines and interrupts are simply not available because of the ROM BIOS and hard-wiring which is not the same as a PC. It boils down to this: the only simple DMA which can be implemented is the disk drive data transfer. Various others, such as the serial port buffer transfers and memory to memory MOVs etc are either difficult or impossible because the Interrupt just isn't there in the jr. The "full blown DMAs" of Racore, PC Enterprises and others really deal primarily with disk access for speed and compatibility where programmers have bypassed the standard addressing of the ROM BIOS. The jr was designed to use the CPU in a way to handle well-behaved machine language, not short-cuts and programmers' tricks.

Part of the reason for non standard programming stems from the programmer's own machine. The programmer finds a way to do something without using the BIOS or standard assembly language techniques and uses it from then on. So far, so good. Now what kind of machine did he do this with? Did you know that the great Compaq is incompatible enough that it has always had its own version of DOS and it just ain't like any other? Hard cards (you'd think they would have to be standard) must have certain circuit changes to even work on a Compaq!

So you think you have problems Bunky... When a software bug was found recently running a program on an IBM Model PS/2 80 and the Microsoft programmers were notified,

Utilities

DISKCAT. Creates a catalogue of all files on all your disks, so you dont have to push disk after disk in your drive looking for that 1987 letter to the IRS. Makes table of contents for each disk, too. 128K ok Reviewed 10/91 (Disk #133)

MEMSIM. Simulates Expanded Memory on the Jr's hard disk (or floppy) through the use of a swap file, enabling you to run programs which require more than 640K. 384K recommended. Reviewed 12/91. (Disk#135).

4DOS V2.21. This is the ultimate utility since it replaces almost all DOS commands with new, improved versions. And it adds 35 more useful commands of its own! It will replace many of your favorite enhancement utilities. For example, 4DOS allows 40 character file descriptions, more flexible wildcards, multiple commands per line, handy conditional commands, command stacking, alias commands, faster batch processing and MUCH more! A must for all serious computerists. Reviewed 1/90 (Disk #102)

LHA V.2.11 Powerful archive software will compress even more than PKZip, (though not as fast). Many extra features to update, delete, list files in arcxhive, even extract and run. 256K (Disk #128)

POWERBATCH. Compiles batch files into .EXE files, which run as much as three times faster. Additional commands add power, control, & flexibility. Requiires DOS 3.0 or above. (Disk #127)

BAKERS DOZEN. 13 powerful utilities by shareware star Jim Button. Recover zapped files, save screen to files, print sideways, sort files, file management, locate text, pop-up calendar, powerful one screen spreadsheet, set screen colors, and more. (Disk #73)

BATCH FILE UTILITIES. A tutorial on how to create batch files and six utilities to use. 128K (Disk #26)

Questions & Answers

they said "IBM compatible" was merely a "term" and that they used Compaqs for the final testing of that particular program! To be fair, though, they eventually did come up with a fix.

Anyway, DMA is probably not as important as good programming practices. A decent SCSI interface and a hard drive usually makes up for any perceived slowness to disk data.

Q. I just can't see putting a hard drive on/under my jr. I also have a standard PC (a clone) with a good sized hard drive and would like to somehow use this one. Can I access a PC XT or AT hard drive from my jr with some kind of direct connection or via the serial port? J.H. Albuquerque, NM

A. Using the serial port for data transfers is really slooow. Even with Lap-Link the parallel port is slow, but there is a third possibility. IBM continues to supply the Cluster Network Cards for the PC, XT and AT. Most '286 and '386 clones will also accept the cards. Here's the good part: Some of our advertisers still have some Cluster Network Adapters for the PCjr. Put a card in each, run the coax cable, get some standard network software and go! This is high-speed network computing. Let the supplier of the Cluster Network Adapter advise you on the software for the best efficiency and bug proofing. This can be a really neat solution to your data access and program storage problems. You can

easily connect up to a number of other PCs this way.

Q. Can you tell me the difference between a *.sys file and a *.com file as in mouse.sys and mouse.com? Sometimes I see information which says that I should only use the latest mouse.com for a program. What if I don't have the latest mouse.com will mouse.sys work? E. Heggland, New Bedford MA

A. DOS *.sys files are specifically written to be used in your config.sys, and will be loaded as "device drivers" during initial boot-up. A device driver is not quite like a .com, .exe or a TSR file / program. In simplistic terms, it (.sys) becomes more like an extension of the ROM. This extra flexibility is a part of the DOS design which has significantly contributed to its success. All .sys files, or the results of their operation, remain in memory and are ready to be called for as long as the computer is still turned on. This is how we recognize extra disk drives, hard and / or floppy, extra memory, how much video RAM we have and where it is located, etc. Remember, .sys files can't invoked from the DOS prompt and won't be used in any .bat files such as your autoexec.bat file.

A .com file is a (usually short) file/program which loads into a specific part of memory in order to be positioned inflexibly to do its work. It is like an .exe file except for that major difference.

Notice, we say major difference

Questions & Answers

because .com files CAN write themselves into an already used part of RAM; and sometimes do just that, resulting in a crash.

An .exe file / program will start to load at whatever RAM address DOS and it determine is the best available, depending on size and length of free memory after config has loaded all its stuff. This address usually, but not always, starts at the first free lowest numbered memory block if there is enough room. The common use of .com files is in .bat files of all sorts though you can also invoke them from the DOS prompt.

A TSR (Terminate & Stay Resident) may be either in .com or .exe format and their claim to fame is that they do a job, generally just the preparation to do another job, dump some of their own instructions out of memory to save space, and monitor some part of active RAM, waiting to be triggered. You know, a "hot key" or a "pop up" TSR. These programs are often called from .bat files and can also be called from the DOS prompt.

For the last part of the question you only need look at the date of the file by using the DIR command. In the case of mouse.com or mouse.exe there will be NO difference (unless you're running Windows) if you use either version. Just be sure it is the latest of its kind and is a compatible driver for the plugged-in mouse.

An Easy Way to Set Your Printer

By Judith R. Epstein

I have read hints in both Power User and elsewhere about sending printer control codes to the printer while in DOS. There are several approaches, including BASIC programs and .COM programs (using DEBUG or the assembler). I have also seen ads for programs to perform this chore.

But none of this is necessary! It's a simple matter to send printer control sequences while in DOS itself. All you have to do is use the COPY command to send characters, including control codes, to the printer. Only one real "trick" needs to be used, and that is for sending the Escape character and the ASCII character 0.

All characters, except ASCII 0, can be generated by using the Alt key combined with the numeric keypad. Just hold the Alt key down while typing the desired character's ASCII code on the numeric keypad. Besides the ASCII 0, Escape (ASCII 27) also causes problems because DOS has special uses for it (it "escapes" the current command line entered so far).

Both difficulties can be solved for Epson (and many other) printers by using the "high order" versions of these two characters. Just add 128 (high-order ASCII 0) to the character code, and peck away at the numeric keypad. For example, to set an Epson printer into compressed

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)

EDNAS 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 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 by location, date and time. Maps 10,000 stars, 300 with labels, 89 constellations. Many features such as brightness selection, zoom in and out, printing on dot matrix, a find feature, and an 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)

mode with subscripts and small (18/216") line hights -- a very tiny print size handy for small -- size directory listings -- just refer to the figure below. The Alt key combined with 155 (shown as <ALT>155) is the same as Escape (since 128 + 27 = 155), and Alt combined with 128 is the same as ASCII 0. Ordinary characters are typed where they can be used without trouble. Don't forget to press the F6 key at the end to close off communications between the console and the printer.

You can simply use the printer in the mode set. In this case, pressing Ctrl-P to enable simultaneous printing makes it easy to print out a directory listing in tiny print.

```
A> copy con: lpt1:
<ALT>155 S <ALT>15 <ALT>155 3
<ALT>018 F6
A>
```

(Reprinted from the Boston Computer Society's PC Report)

Use Care Switching Between DOS Versions

Although MS DOS and PC DOS are very similar and your computer can run either, if you plan on upgrading your system by installing a hard disk and want to use DOS 3.0 or higher, you should stick with one or the other. The hidden files, IBMBIO.COM and IBMDOS.COM on PC DOS, are different for MS DOS, which can cause "non-system disk or disk error" messages. Once one system is installed on your hard disk, that's the one you should keep on using.

Picture This--Address Labels with Graphics

After recieving a letter from a reader praising a label program which allows the user to use **PrintMaster** and **PrintShop** graphics, we tested several programs and found the most versatile program to be **Picture This**. It offers all the features of other programs, and allows you to load different fonts, as well as choose from a variety of built-in graphics.

The Main Menu allows you to print three lines of text for the address label. You can choose an illustration by scrolling through the graphics displayed on the screen. To select a graphic, press the insert key.

You are prompted for the number of copies of the label you want, and even have the option to have different graphics on the individual labels.

Users who register their software will get a version which will:
*   create diskette labels - 5.25" and 3.5"
*   create To/From stickers
*   create business cards
*   15 additional fonts
*   import PrintShop and Print-Master graphic libraries
*   mail merge feature for printing mailing lists
*   stand alone address book to use with mail merge

Picture this runs with a IBM PC Compatible, or PCjr with 256K, Color graphics card and an IBM graphics printer or compatible. It is Disk #141 in the jr Newsletter Software Store.

New jrConfig Offers More Options

on Junior Power Pack III, Disk #140 in the Software Store (See pages 29-30).

Unless equipped with a PC Enterprises Display-Master VGA sidecar or jrExcellerator speed up board, the PCjr uses internal memory to store video information. Programs designed for a CGA card write a block of video information (up to 16KB long) to hardware address B8000h where the cards provide 16KB of memory. However, Junior does not use this memory address. Instead, it allocates 16KB of internal memory at another address. For compatibility with CGA programs, the PCjr's hardware redirects the memory to Junior's video buffer. Memory management software allows you to change the size and address of this video buffer. The PCjr can have up to 96KB of video memory, or as little as 2KB, depending upon the options you specify with jrConfig.

Memory Management Speeds Up Junior

The PCjr inserts "wait states" in its internal memory for video refreshing. When hardware suppliers design add-on memory products, they can design them to work without these added wait states. So a program forced to run from a memory expansion sidecar will run faster than if it were loaded in slow memory. One of jrConfig's defaults lets the PCjr set aside all slow memory. Then all programs load and in the faster expansion memory area. If "slow" memory is needed, the /S option recovers as much slow memory as desired.

When Memory Management Is Not Needed

JrConfig automatically executes twice when Junior starts. Some options take effect the first time jrConfig runs; others take effect the second time. The first time jrConfig reports 112KB of memory. Then jrConfig moves the video buffer out of DOS's way, changes other defaults specified by your switches, then restarts DOS. The second time DOS loads, it sees all the PCjr's memory up to 640KB (736KB if you are using the / L option).

DOS 5.0 Compatibility

The patches used to run DOS 5.0 deal with the amount of memory reported by DOS. Junior won't load DOS 5.0 without them because it needs more than the 128KB of conventional memory junior reports the first time it boots. The DOS 5.0 patches cause DOS to report adequate memory. JrConfig moves the video buffer to allow DOS 5.0 to run.

The new jrConfig automatically checks for the PC Enterprises' Compatibility Cartridge. If found, it automatically installs all the routines to correct DOS compatibility problems. If you do not have the cartridge, jrConfig operates without it.

If you have a PC jrExcellerator, you can now leave jrConfig in your CONFIG.SYS file all the time - even

---

when you operate in PC memory mode. In this case, jrConfig ignores the /V option (which controls video buffer size) and lets the PCjr use 32KB of video memory all the time. This lets Junior run programs that write video information to B8000h without changing the CONFIG.SYS file. So, if you have the Tandy Mod, you can run any 4-color CGA program, or almost any 16-color Tandy program, without changing CONFIG.SYS. If you do not have the Tandy Modification, this feature will not affect system performance or available memory in any way.

PCE Display-Master Support

The new jrConfig supports PC Enterprises' Display-Master VGA sidecar for SuperVGA, VGA, EGA, and true CGA graphics on the PCjr, resolving some problems experienced when earlier versions of jrConfig were used with Display-Masters. Now, Display-Master users can leave jrConfig in their CONFIG.SYS file even when the VGA cartridge is used.

In addition, jrConfig has numerous options unique to PCjr-CGA which can be used in Display-Master Memory Mode. It also resolves some "sector too large", "divide overflow", and "out of memory" errors, and system crashes related to problems in the DOS 2.10 stack. It allows the Display-Master VGA sidecar to operate under DOS 2.10.

Improved RAMDISK Controls

DOS assigns drive letters to floppy drives controlled by DOS first,

PCjr Software

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 PCjrs, 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 youre 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.

• The Software Store (on Pages 29-30) Features Affordable Software for your PCjr!

New Version jrConfig

then to hard drives recognized by BIOS, then to other devices which use device driver software. Since jrConfig is the first device driver in your CONFIG.SYS file, the ramdisk created by the /R option will normally be assigned drive letter C: or D:, depending upon how many floppy drives you tell DOS you have, and whether you are using a self booting hard drive system. If you have additional drives which use device driver software to operate, you can now tell DOS to assign their drive letter before your ramdisk. This way your devices will always have the same letter, whether or not you use a RAMDISK.

How to Connect a Printer to a PCjr

used by an IBM PC. This means the cable has the correct pin assignments for modems and mice, which is not the same as what's needed for most printers.

The easiest way to properly connect the printer is to ask the printer's manufacturer what you need to connect his printer to an IBM PC. If the printer can be connected to an IBM serial port with a standard 25 position cable, then you can connect a PCjr serial cable directly to your printer. However, if the printer requires a special cable, you'll either need to purchase that cable or make your own pinout adapter. In many cases a Null Modem/Printer Adapter will do the trick all by itself, or it can easily be modified to do exactly what you need. However, there is no one industry standard, so what you need will depend upon your printer.

Once the printer is properly connected you must next set up the communication parameters. To do this you need to know which COM port your printer will be using. The PCjr's "S" connector is known to BIOS, DOS, and BASIC as COM1 if you do not have an internal modem, Comswap board, or RIM Sasitalk hard disk interface card plugged into your internal modem slot. If you do have any of these devices, the PCjr's "S" port becomes COM2.

Next, you must use option 3 of the Mode command to initialize the COM port. Initialize means set the baud rate, parity, number of data bits and stop bits, and tell the computer to continuously retry when timeout errors occur. Your PCjr can do almost anything your printer will need, so refer to your printer manual to determine what is required, then refer to your DOS manual to determnine how to use option 3 of the Mode command.

You should also know that DOS has the ability to redirect output intended for a parallel printer to a serial port. This is a nice feature because it lets you use your serial printer with programs designed to work with parallel printers--without modifying your program. Option 4 of the Mode command is used for this purpose. Refer to your DOS manual for details.

the /R option (for the ramdrive in faster memory), the amount of memory specified with the /S option is set aside for possible use as a ramdisk. Then when the LOWRD. SYS device driver is executed, DOS assigns the next available drive letter to the slow memory that was allocated for use as a ramdisk.

Improved RAMDISK Operation

The new jrConfig v3.0 creates a ramdisk which conforms to DOS ramdisk specifications. DOS overhead is increased by 128 bytes, but the ramdisk will work correctly with all versions of DOS including DOS 5.0 (even the CHKDSK command works!).

Won't Support Cartridge BASIC

The jrConfig program is NOT compatible with Cartridge BASIC, which won't run properly when DOS reports expansion memory. Because Cartridge BASIC was designed before the PCjr's memory could be expanded beyond 128KB, Cartridge BASIC does not calculate the amount of memory available on your system correctly. Though previous versions of jrConfig would lie to DOS about the amount of memory installed, this approach did not fix the problem correctly. Some BASIC programs would work fine, others would not work at all, and others produced "Illegal Function Call" messages or demonstrated Screen Mode problems. Worse than that, its very dangerous to lie to BASIC about how much memory you have. If you really have 640KB, but you tell BASIC you only have 128KB, any data

New Version jrConfig

SIC you only have 128KB, any data that you have in the first 128KB of memory is jeopardized. If you install a ramdisk, print spooler, or other TSR program before you run Cartridge BASIC, then run Cartridge BASIC and lie about the top of available memory, you're giving BASIC permission to overwrite your data. This is very risky!

PC Enterprises recommends using their Compatibility Cartridge in order to run Cartridge BASIC programs. Or you can use the Cartridge BASIC on a junior with an expansion memory unit by removing jrConfig from your CONFIG.SYS file. This will prevent Junior from recognizing your expansion product. Then Cartridge BASIC will run just as well as it always has.

DOS Stack Compatibility

When jrConfig is used with DOS 2.10, it sets up a new DOS stack that allows PCE EGA and VGA upgrades to run without needing a later DOS. The new jrConfig does not affect the DOS stack of later versions of DOS.

Tandy Mod Compatibility

Most Tandy programs write video information to B8000h. The Tandy's hardware then redirects information up to 32KB long starting at B8000h to the actual video buffer, which can be set up anywhere in the Tandy's memory. The PCjr's hardware also redirects information written to B8000h to the video buffer,

but the PCjr was designed to only redirect 16KB. So when you try to run a 16-color Tandy program on the PCjr, the Tandy program usually writes 32KB of video information to B8000h and the PCjr redirects the second 16KB of information to the same place as it redirects the first 16KB! This makes the program look like venetian blinds are blocking every other line of the display. The inexpensive "Tandy Mods" fix this problem by causing the PCjr to redirect a 32KB block instead of 16KB. If you have this modification installed, your PCjr handles Tandy graphics the same way as it handles PCjr graphics when jrConfig uses the /V32 option.

There are also software patches that allow the PCjr to run Tandy software without a system board modification. They "hard code" the location the program will use to write video information. Once a program is patched to write video information to any address other than B8000h, jrConfig must allocate the new location for use as the video 32KB video buffer. The /S option (which changes the video buffer location when setting aside the slow memory) must be configured to match the location where video information to be written when software patches are used to achieve Tandy video compatibility.

(To be Continued in Next Issue.)

This article based on information provided by PC Enterprises.

Program Color in Basic

(Continued from page 1)

they can make it easier to find and make appropriate choices when writing in BASIC.

The Two Types of Screen "Modes":

There are two main types of screen displays:

1. TEXT MODE. This is the simplest screen mode as it only will display ASCII characters on the screen. The text mode places the least memory demands, but places many limits on the display options available to the B.A.S.I.C. programmer.

2. GRAPHICS MODES There are six GRAPHICS SCREEN MODES broken down into three levels of detail: Low (SCREEN 3), Medium (SCREENS 1, 4, & 5), and High (SCREENS 2 & 6) Resolution. These allow programs to control much smaller details on the screen. These display elements are called "pixels" (for "picture elements"). Please note that speed and memory are sacrificed using these screens in order to have more drawing control over what is being displayed.

SCREEN MODE PARAMETERS:

The following chart shows the main differences between the seven specific screen modes:

SCREEN MODE TYPE	SCREEN MODE NUMBER	RESOLUTION OF SCREEN DISPLAY TYPE	SIZE	SCREEN WIDTH	VIDEO MEMORY REQUIRED	NO. OF COLORS DISPLAYED
Text Mode _ 0		n.a.	Alpha	40,80	2K,4K	16
/ 1		Med	320x200	40	16K	4
/ 2		High	640x200	80	16K	2
Graphic 3		Low	160x200	20	16K	16
Modes 4		Med	320x200	40	16K	4
\ 5		Med	320x200	40	32K	16
_ 6		High	640x200	80	32K	4

BASIC COLOR STATEMENT CHART:

BASIC uses numbers after the word COLOR to set the various colors on the screen. The following is a list of those numbers and the specific colors they represent:


```
      LOW INTENSITY COLORS              HIGH INTENSITY COLORS
-----------------------------     -----------------------------
                Display Style                      Display Style
     Color     ---------------       Color         ---------------
  Displayed    Solid Blinking     Displayed     Solid Blinking
------------    ---- --------     ------------    ---- --------
Column Letter:    A      B         Column Letter:    C       D
-----------------------------+-----------------------------
Black             0     16         Grey             8      24
Blue              1     17         Light Blue       9      25
Green             2     18         Light Green     10      26
Cyan              3     19         Light Cyan      11      27
  (``Turquoise'')                    (``Pale Blue'')
Red               4     20         Pink            12      28
Magenta           5     21         Light Magenta   13      29
  (``Purple'')                      (``Light Purple'')
Brown             6     22         Yellow          14      30
White             7     23         Bright White    15      31
--------------------------------------------------------------
```

(NOTE: There are 4 columns of numbers - Columns A, B, C, & D.
These columns are referred to in the SCREEN MODE descriptions
that follow below as, for example, "Column A only".)

Afraid to Upgrade?
jr ToolKit (Disk #110)
tells you in simple English
how to upgrade your PCjr
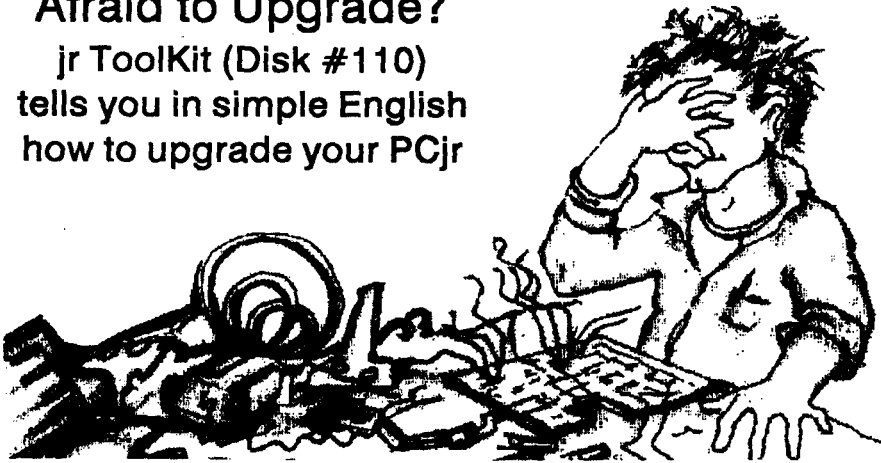
*************** ''TEXT MODE'' (SCREEN 0 ONLY) ***************
---- SCREEN 0 --
GENERAL TEXT MODE (''SCREEN 0'') RULES:
1. Format of the COLOR Statement:
     COLOR [foreground][,[background][,border]]
2. Available Colors:
   a. Foreground: 0 through 31   (Columns A, B, C, and D)
   b. Background: 0 through 7   (Column A only)
   c. Border: 0 through 15   (Columns A and C only)

3. Available BASIC Text Mode Display Statements:
     CLEAR   *LOCATE*   PCOPY   *WIDTH*
     CLS   PALETTE   *PRINT*   *WRITE*
     COLOR   PALETTE USING   SCREEN
(Note: *STARRED ITEMS* are not usable in Graphics modes.)
4. Invisible Text: If the foreground color is made equal to
     the background color, the character(s) displayed will be
     invisible.
5. Resolution: You may use either the ''WIDTH 40'' or ''WIDTH
     80" statement.
************ ''GRAPHICS MODES'' (SCREENS 1 THRU 6) ************
GENERAL GRAPHICS MODES RULES FOR SCREENS 1 THRU 6:
1. Available BASIC Graphics Mode Display Statements:
     CIRCLE   *GET*   PALATTE USING   *PUT*
     CLEAR   *LINE*   PCOPY   SCREEN
     COLOR   *PAINT*   *PRESET*   *VIEW*
     DRAW   PALETTE   *PSET*   *WINDOW*
(Note: *STARRED ITEMS* are not usable in Text mode.)
2. Border Color: In Graphics Modes the border is the same as
     the background color.
---- SCREEN 1 --
DEFINITION: A ''Medium Resolution Graphics Mode'' - 320 by 200
     pixels. Four colors available. 16K page size.
1. COLOR Statement Format:
     COLOR [background][,[palette]]
2. Available Colors:
     a. Background: 0 through 15   (Columns A and C only)
     b. Palette: Uses only two numbers to allow a set
     (''palette'') of three color choices (called
     ''attributes''):
     1.) Palette 0 uses attribute 1 for Green
                                  2 for Red
                                  3 for Brown

2.) Palette 1 uses attribute   1 for Cyan

                                     2 for Magenta

                                     3 for White

(These attributes may be selected only when using the PSET,
    PRESET, LINE, CIRCLE, PAINT, VIEW, and DRAW statements.)

------ SCREEN 2 ---

DEFINITION: A ``High Resolution Graphics Mode'' - 640 by 200
    pixels. Only Black and White Colors are available. 16K page
    size.

1. COLOR Statement format:
    The COLOR Statement is NOT available to this screen.
    WARNING!! If used, it will result in an ``ILLEGAL FUNCTION
    CALL'' error.

2. Available Colors:
    None. This screen mode only displays black and white.

---- SCREEN 3 ---

DEFINITION: A ``Low Resolution Graphics Mode'' - 160 by 200
    pixels. Sixteen colors available.   16K page size. Available
    only when using Cartridge BASIC.

1. COLOR Statement Format:
    COLOR [foreground][,[background]]

2   Available Colors:
    a. Default Position:
        White (15) foreground on a black (0) background.
    b. Foreground: 1 through 15   (Columns A and C only)
        (0 will create ILLEGAL FUNCTION CALL message)
    c. Background: 0 through 15   (Columns A and C only)
---- SCREEN 4 --
DEFINITION: A ``Medium Resolution Graphics Mode''. 320 by 200
    pixels. Four colors available.   16K page size. Available
    only when using Cartridge BASIC.
1. COLOR Statement Format:
  COLOR [foreground][,[background]]
2. Available Colors:
a. Default Position:
    White (15) foreground on a black (0) background.
b. Foreground:
    Uses the Palette colors rules mentioned for SCREEN 1.
    Palette allows a set (palette) of three color choices
    (attributes) to be used.
        1.) Palette 0 uses attribute   1 for Green
                                             2 for Red
                                             3 for Brown
        2.) Palette 1 uses attribute   1 for Cyan
                                             2 for Magenta
                                             3 for White
        3.) Default Palette: Palette 1 is the default mode.
                Therefore if COLOR 1,0 is chosen the text will be
                Cyan colored on a black background. COLOR 2,14
                produces Magenta (purple) on a yellow background.
                Any other foreground numbers will create an
                ``ILLEGAL FUNCTION CALL'' message.
                (These attributes may be selected only when using
                the PSET, PRESET, LINE, CIRCLE, PAINT, VIEW, and
                DRAW statements.)
    c. Background: 0 through 15   (Columns A and C only)
---- SCREEN 5 --
DEFINITION: A ``Medium Resolution Graphics Mode''. 320 by 200
    pixels. Sixteen colors available.   32K page size. Available
    only when using Cartridge BASIC and at least 128K of memory.
    The CLEAR statement [to increase the available video memory]
    must be issued before this screen mode can be used. The
    statement form is: CLEAR,,,32768
1. COLOR Statement format:
    COLOR [foreground][,[background]]

Program Color in Basic
(Continued from page 25)

2. Available Colors:
   a. Default Position:
      White (15) foreground on a black (0) background.
   b. Foreground: 1 through 15   (Columns A and C only)
      (0 will create an ''ILLEGAL FUNCTION CALL'' message)
   c. Background: 0 through 15   (Columns A and C only)

---- SCREEN 6 --

DEFINITION: A ''High Resolution Graphics Mode''. 640 by 200
   pixels. Four colors available. 32K page size. Available
   only when using Cartridge BASIC and at least 128K of memory.
   The CLEAR statement [to increase the available video memory]
   must be issued before this screen mode can be used. The
   statement form is: CLEAR,,,32768

1. COLOR Statement format:
   COLOR [foreground][,[background]]

2. Available Colors:
   a. Default Position: A white (15) foreground on a black
      (0) background.
   b. Foreground:
      Uses the Palette colors rules mentioned for SCREEN 1.
      Palette allows a set (palette) of three color choices
      (attributes) to be used.
      1.) Palette 0 uses attribute   1 for Green
                                 2 for Red
                                   3 for Brown
      2.) Palette 1 uses attribute   1 for Cyan
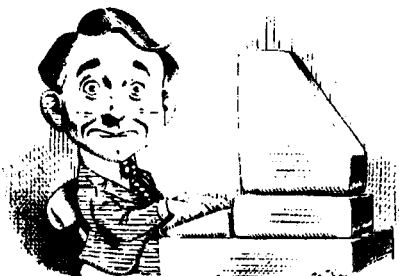   2 for Magenta
                                   3 for White
      3.) Default Palette: Palette 1 is the default mode.
            Therefore if COLOR 1,0 is chosen, the text will
            be Cyan colored on a black background. COLOR
            2,14 produces Magenta (purple) on a yellow
            background. Any other foreground numbers will
            create an ''ILLEGAL FUNCTION CALL'' message.
            (These attributes may be selected only when using
            the PSET, PRESET, LINE, CIRCLE, PAINT, VIEW,
            and DRAW statements.)
   c. Background: 0 through 15   (Columns A and C only)

Need Help?

The following disks from the jr Newsletter Software Store can help you to get the most out of your junior. To order, see the coupon on page 23.

PCJR AUTOSETUP. A beginner's dream: Just select from a menu to make separate boot disks especially for each type of software you use. Automatically creates the right config.sys and autoexec.bat files for RAM disks, games, word processing, telecommunications and other software to run at maximum power and efficiency on your PCjr. Designed especially those who haven't mastered the art of customizing their computers. This one does it for you! 256K (Disk #99)

JR TOOLKIT V2.0. A collection of 30 upgrades, modifications and repairs. Some easy, some require experience. Includes adding second 5.25" drive (easy) or 3.5" drive (easy), PCjr to Tandy 1000 Mod (harder), power supply upgrade (harder), reset button (harder), V20 speedup chip (easy), how to quiet drives (easy), adjust monitors (easy), plus many others. (Reviewed 3/90 & 6/90) (Disk #110)

JR POWER PACK. A collection of particularly useful programs for PCjr owners. Set up RAM disks, address memory to 736K, turn a joystick into a mouse, set screen colors, keyboard click, scan and search text files, screenblanker, print spooler, and more. 128K. (Disk # 52)

JR POWER PACK II. Disk full of programs to make your PCjr more useful and powerful. Fix compatibility problems, set up ram disks, tiny word processor, set up 3.5" drives, use DOS easily, and more. Need 256K for some, 128K ok for most. (Disk #65)

Jr POWER PACK III A disk chock-full of utilities to get the most out of the PCjr, including the latest version (4/92) of jrConfig, a quick bootup disk for DOS 3.X, multipurpose compatibility drivers, patches for keyboard adaptors, ramdrive configuration programs, programs which adapt the PCjr to the multitide of new add-in products for the PCjr . 256K Reviewed 4/92 (Disk #140).

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)

jr Newsletter
Software Store

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.

FULLY DESCRIBED
IN THIS ISSUE:
Games, 6,7,8
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Home/Family Management, 14, 15
Telecommunications, 17
Help for PCjr, 27

Buy Two Disks, Get One Free!

Newest Releases

* NEW * **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).

* NEW * **Jr Power Pack III** A disk chock-full of utilities to get the most out of the PCjr, includingthe latest version (4/92) of jrConfig, a quick bootup disk for DOS 3.X, multipurpose compatibility drivers, patches for keyboard adaptors, ramdrive configuration programs, programs which adapt the PCjr to the multitide of new add-in products for the PCjr . 256K Reviewed 4/92 (Disk #140).

* NEW * **USA MAP** 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 Reviewed 4/92 (Disk #139).

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

* NEW * **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)

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3   PRINTMASTER LIBRARY. (2 disks-$10)
4   TELIX V3.12 (3 disks-$12)
5   PC-WRITE LITE (2 disks-$10)

\#   TITLE
1   PC-WRITE V2.5 (128K)
2a   PC-WRITE V2.7 (256K), Disk 1
2b   PC-WRITE V2.7 (256K), Disk 2
3   PC-FILE III. 128K
4   PC-FILE III. 256K
5   PC-CALC. 128K
6   PC-CALC. 320K
8   GAMES I
9   DUNGEONS & WARS
10   PINBALL RALLY
12   REFLEX POINT
14   ADVENTUREWARE
15   PROCOMM
16   BUSHIDO
17   PC-OUTLINE
18   TYPING INSTRUCTOR
19   3 X 5
20   EQUATOR
21   TIME TRAVEL IN HISTORY
22   PC-DESKTEAM
23   PC-PROMPT
24   PC DOS HELP
25   PC-CHECK MANAGER
26   BATCH FILE UTILITIES
27   MINICALC
28   SUPER UTILITIES
29   MORE SUPER UTILITIES
30   ARCADE GAMES
31   BOARD GAMES
32   PLAY AND LEARN
33   FAMILY HISTORY (128K), single
33A FAMILY HISTORY (256K), need both
34   GAMES II
35   NEW KEY
36   PIANOMAN
37   PC-KEY DRAW
38   PC-KEY DRAW DEMO
39   ORIGAMI
40   DOS 2.1 FIX
41   WORD PROCESSING FOR KIDS

42   MATH FUN!
43   BRAIN BOOSTER
44   PC-CHESS
45   ZAXXON/GALAXY TREK
46   PHRASE CRAZE
47   GOLF/SAILING
48   EARLY LEARNING
49   DOSAMATIC
50   IMAGEPRINT V3
51   PRINT HANDLER
52   JR POWER PACK
53   CASTAWAY/S. AMERICA TREK
54   THE BEST OF JR NEWSLETTER I
55   SUPER BOARD GAMES
56   PCjr PATCHES V.6.0
57   HOME BUDGET MANAGEMENT, 128K
57A HOME BUDGET MANAGEMENT, 256K
58   HOME INVENTORY
59   CHECK PROCESSOR
60   PC-JR COMPATIBILITY DISK, V4.0
61   BOYAN
62   JR MUSIC MACHINE
63   GAMES FOR EARLY LEARNERS
64   COMPUTER JOKER
65   JR POWER PACK II
66   THE BEST OF JR NEWSLETTER II
67   AS-EASY-AS, V.2.05 (256K)
68   DOUBLE TROUBLE
69   GALAXY
70   NAMEPAL
71   CROSSWORD CREATOR V3.30
72   LANGUAGE TEACHER
73   BAKER'S DOZEN
74   MIND READER
75   RAMDISK MASTER
76   PC-STYLE
77   COMPUTER TEACHER
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