

Prodigy

This sheet is provided by PC Enterprises to help PCjr owners use and enjoy Prodigy.

General

While Prodigy does not officially list the IBM PCjr as a supported computer, the PCjr works just as well with Prodigy as the IBM PC or PC-XT! In fact, when you do run Prodigy on a PCjr the graphics that you see are far superior to graphics displayed by other computers.

Computers which use a color graphics adapter (CGA card) only receive Prodigy in black and white. However, when Prodigy is run on a PCjr, comparatively spectacular 16-color screen graphics are displayed.

It's easy to get Prodigy up and running on your PCjr, however there are a few things you should know before getting started.

DOS NMI Patches Needed!

If you are still using PC DOS 2.10 be sure that your DOS has been patched to prevent bugs in DOS from causing your PCjr to "hang up" or "crash" without warning.

If you are using a later version of PC DOS you do not need to worry about this problem as later versions of DOS already have the NMI bugs corrected.

Note: *If you're not sure which version of DOS you use, start your computer and at the DOS prompt type: VER then press ENTER. If the computer displays the message "IBM Personal Computer DOS version 2.10" be sure to correct the DOS bugs before you use your PCjr with Prodigy! The DOS bugs will also cause problems with other programs, however certain programs are absolutely effected more frequently. Prodigy is one of these programs.*

If you do not correct the DOS 2.10 bugs your PCjr will occasionally "hang up" without warning. This will always happen immediately after you press or release a key, thus causing Prodigy to stop running and making it necessary for you to re-start your computer.

There are several ways you can prevent the NMI bugs in DOS 2.10 from interfering with Prodigy and other programs that you run.

First, if you already have a PC Enterprises Hard Disk Expansion System, simply enter the command: NMIPATCH. Or, if you have a PC Enterprises Keyboard Buffer or Combo Cartridge enter the command: JRSYNC.

As an alternative, if you do not have either of these products, use the bootable diskette supplied by PC Enterprises with your Prodigy kit to start your computer. The DOS installed on this diskette has

had the NMI bugs corrected.

Once DOS has been loaded you can remove the bootable diskette. The bug-free version of DOS will remain resident in your PCjr until you reboot. It's important to remember that the DOS bugs are NOT in the COMMAND.COM file, instead they are in a hidden file named IBMDOS.COM. This means that unless you know how to unhide and compare hidden files, you'll need to trust us. The DOS installed on the bootable diskette provided is NMI bug-free, although the diskette will look just like any other diskette when you ask for a directory.

The easiest way to copy the bug-free DOS from the bootable diskette provided to your usual DOS diskette is to use the SYS program provided with DOS. Refer to your DOS manual for more information. The command to enter is: SYS B:

16-Color Support

When you run Prodigy's INSTALL program, Prodigy attempts to determine the type of graphics adapter that you are using. Prodigy will report that you have a color graphics adapter (CGA card) installed. You must change this to the Tandy 1000 graphics adapter (in order to run Prodigy in the 16-color mode).

If your PCjr's system board has already had the PC Enterprises Five System Board Modifications installed, you will be able to run Prodigy immediately after the install program finishes, without doing anything else.

If your PCjr's system board has not yet had our Tandy modification installed, you can still run Prodigy in color, however, you'll need to use the special PCjr screen driver provided by PCE on the "Special Prodigy Instructions for PCjr Users" diskette.

To use the special PCjr screen driver when you install Prodigy on floppy diskettes, you should first understand that Prodigy's INSTALL program copies the Tandy screen driver into a file named DRIVER.SCR that could be found on the Prodigy Personal Diskette B. Use the DOS COPY command to replace this file with the file which has the same name that could be found on the diskette provided by PCE. (Beginners: insert the Special Prodigy Instructions for PCjr Users diskette" in drive A then type A:COPY DRIVER.SCR B:/V then press enter. When you are asked to insert the diskette for drive B, insert the working copy of your Prodigy Personal Diskette B.

Video Buffer Management

To run Prodigy, or any program that uses a 16-color graphics mode, you must first set up your PCjr to use 32K of memory as its video buffer. The proper way to do this depends upon which screen driver you use, and the software you use to recognize your PCjr's memory.

If your PCjr system board has already had the PCE System Board Modifications installed, then you can and should use the Tandy screen driver. If your PCjr system board has not yet had the PCE System Board Modifications installed, then you should use the special PCjr screen driver provided by PCE.

The advantage of the Tandy screen driver is that it works with the PCjr's video buffer redirection circuitry. This means that all you need to do is allocate 32K of memory as the video buffer. You won't need to worry about where the actual video buffer is located. (You can also allocate a larger video buffer if, for any reason, you decide you want to). To set up your PCjr to use a 32K video buffer, simply use the -V32 option of the JRCONFIG program.

The special PCjr screen driver does not use the PCjr's redirection circuitry because the PCjr will only correctly redirect 16K of information. The PCjr screen driver writes video information directly to the 32K block of memory that begins at address 18000 hex. To use the special PCjr driver you must make sure your memory management software sets up a 32K video buffer beginning at 18000h. The JRCONFIG program will do this for you, but you must use the -V32 option and you must not use the -S option.

Communication Problems

Many PCjr users find when they attempt to access Prodigy the first time they receive a communication error message. Re-trying always corrects the problem. We have found this to be a common situation, although it only causes minimal inconvenience. Select the "Re-try" option from the Prodigy opening menu. We're looking into this problem and anticipate a solution shortly.

By the way, we have only experienced this problem when Prodigy is run from floppy diskettes. If you already have a PC Enterprises MegaBoard or Hard Disk Expansion System, we strongly suggest that you run Prodigy from your MegaBoard or hard drive. This will also greatly improve the speed of the service as Prodigy will never seem to stop to read the disk drive.

JrExcellerator Compatibility

If you also have our JrExcellerator Speed-up Board and are still using speed up board software Version 2.1.x or earlier, you will not be able to run Prodigy if the FASTKEY program is installed. If you try to run Prodigy with FASTKEY installed you'll find that your keyboard does not work at all when Prodigy's opening screen appears.

FASTKEY is the program that lets you change speeds "on-the-fly" with keyboard commands. The easiest way to solve this problem is to remove the FASTKEY program from memory by typing FASTKEY /R; however this command may not work if another program you have run (such as JRCONFIG), has taken over interrupt 9. If you use the FASTKEY /R command and a message tells you that the FASTKEY program cannot be removed, set speed up board switch #7 to the OFF

position. This prevents the JrExcellerator board from automatically installing the FASTKEY program.

(You can still manually install the FASTKEY program by typing: FASTKEY, at the DOS prompt, or placing the FASTKEY command anywhere in your AUTOEXEC file).

The advantage of using the manual install option (switch 7 OFF) is that you'll have no trouble removing the FASTKEY program anytime you find it's not compatible with another program that you use.

When these instructions are followed, you'll have no trouble using your JrExcellerator with Prodigy, although you will not be able to change speeds "on the fly". (Remember, you can also use the SLOWSPD and FASTSPD commands to change speed, and these commands never cause compatibility problems).

If you are using a later version of our speed up board software, you will not have any problems using the FASTKEY program with Prodigy. The speed up board software is provided in a 28-pin EPROM. The EPROM plugs into a socket on the JrExcellerator. All JrExcellerator users can upgrade to the latest speed up board software for a nominal cost. Contact PC Enterprises for details.

Hardware Requirements

Memory

- The program was tested on a PCjr with 640K

Drives

- One 360K or 720K drive or a hard drive

Graphics Modes

- 4-color CGA Mode: works on all PCjrs, however Prodigy will not run in color. Instead it runs in shades of gray
- 16-color Tandy Mode: PCE System Board Modifications required
- 16-color EGA/VGA Mode: PCjr Display-Master Sidecar required
- 16-color PCjr Mode: Special PCjr Screen Driver Required

Pointing Devices

- Mouse or keyboard

Other

- 1200 or 2400 Baud Hayes compatible modem required

Recommended Hardware

- 2400 Baud internal or external modem
- Megaboard, TurboDrive, or hard drive (to speed up disk access)
- JrExcellerator
- Mouse

Summary

32K video buffer required (-V32 of JRCONFIG).

Be sure to patch the DOS NMI bugs if you are using PC DOS 2.10.

Replace the Tandy screen driver with the special PCjr screen driver provided if you haven't yet had the PCE System Board Modifications installed on your PCjr system board.