

Imagenation PXR Series

Guide To
Troubleshooting
Frame Grabber
Installations

Imagenation PXR Series Frame Grabbers
PXR800

Covering All Supported Microsoft Win32 Operating Systems
Windows 98, 98SE, and Me
Windows NT 4.0, 2000, and XP

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problem: Computer locks at boot / reboot

This problem means that the operating system did not finish its boot process. You cannot use your system. The operating system may be locked, may be stuck in an infinite loop, or may be waiting for something that will never happen. Nonetheless, the result is the same—you were never given control of your machine. The two problems, “locks at boot” and “locks at reboot” are similar.

CASE 1: “LOCKS AT BOOT” DEFINITION

1. You turned off your computer.
2. You installed a PXR Series frame grabber.
3. You turned on the power to allow the computer to boot.
4. The boot process never completed.

CASE 2: “LOCKS AT REBOOT” DEFINITION

1. You turned off your computer.
2. You installed a PXR Series frame grabber.
3. You turned on the power to allow the computer to boot.
4. The operating system initialized.
5. You loaded the PXR Series drivers.
6. You rebooted.
7. The boot process never completed.

There is an important difference between the two cases. In Case 1, the PXR Series drivers have not been loaded. The most likely cause for Case 1 is a bad board. In Case 2, the drivers have been loaded, which means there are more possible causes.

Try This . . .

SOLUTION: TRY A DIFFERENT PXR SERIES FRAME GRABBER

The PXR Series frame grabber may have been damaged during shipment. If you have another PXR board, try it. Otherwise, contact CyberOptics Semiconductor Technical Support for a RMA number.

or Try This . . .

SOLUTION: TRY A DIFFERENT PCI SLOT

Move the PXR Series frame grabber to another PCI slot—preferably the one closest to the CPU.

problem: Crash or “blue screen” on boot / reboot

The terms “crash” and “blue screen” refer to the same problem on different operating systems. The Windows 9x systems (98 and Me) will crash by rebooting or locking up. The Windows NT systems (NT, 2000, XP) will “crash” by displaying a data dump on a “blue screen.”

Try This . . .

SOLUTION: INSTALL THE LATEST DRIVER PACKAGE

The driver package that is shipped with the PXR Series frame grabber should always be the latest version. However, if you are unsure, or if you did not receive a driver package (CD-ROM disc), please download the latest package from the Imagination website at:

http://www.imagination.com/dnpages/pxr_files.html

Use the following procedure to delete old driver packages:

1. Run the “PXR Series Uninstall” program.
2. Search your disk for PXR Series files and delete them.
3. Reboot.
4. Install the new driver package.

problem: No video (black display window)

The “no video” problem is a result of the following sequence of actions:

1. A PXR Series frame grabber has been installed with no problems.
2. Your machine has been rebooted with no problems.
3. You run one of our samples, but you get a black window instead of video.

Try This . . .

SOLUTION: CHECK CAMERA POWER & VIDEO CONNECTION

Disconnect and reconnect the cable between the video output of the camera and the PXR Series frame grabber.

Check the power switch on the camera, and disconnect and reconnect the power cable.

If you're powering the camera from one of the 26-pin D sub connectors of the PXR make sure that the white power connector on the PXR board is connected to the computer power supply.

EXPLANATION:

The white power connector on the PXR board is designed to mate up with a standard 4-pin mini-drive connector used on most 3.5" zip/floppy drives. If your computer does not have one of these connectors you can get an adapter cable for a 5.25" to 3.5" drive at most computer stores.

The adapter cable we use is a Belkin 3.5" drive power converter cable number 274933.

The pinout of the 4-pin connector on the PXR is shown in Table 1:

Table 1. Power connector for PXR Series

Pin Number	Wire Color	Power
1	Red	+5 Volts
2	Black	Ground
3	Black	Ground
4	Yellow	+12 volts

or Try This . . .**SOLUTION: CHECK THE CAMERA APERTURE**

Verify that the camera's aperture is open.

or Try This . . .**SOLUTION: CHECK THE LIGHTING**

Verify that the object being viewed has adequate lighting for the camera to acquire images.

or Try This . . .**SOLUTION: CHECK "BUS MASTERING"**

All PXR Series frame grabbers are "bus masters." That means they have to take control of the PCI bus when they start a video transfer to PC memory. Some computers have PCI slots that are not capable of "bus mastering."

Make sure the PXR Series frame grabber is plugged into a slot capable of "bus mastering." You can determine that by contacting your PC vendor or by consulting your PC documentation.

It may be possible to control "bus mastering" through your BIOS. Check your PC documentation for particulars.

error message: “Allocate FG Failed”

The “Allocate FG failed” error message is generated by one of the PXR Series sample programs listed in Table 2.

Table 2. Complete list of PXR sample programs

PXR_Grab	PXR_Grab_RT1
PXR_Grab_RT2	PXR_LUT
PXR_Multi_Cam	PXR_Offset_Gain
PXR_ROI	Strobe
PXR_Trigger	

Try This . . .

SOLUTION: RUN ONLY ONE APPLICATION AT A TIME

This error means that the sample program cannot allocate a PXR Series frame grabber. Only one program can use a PXR Series frame grabber at a time. If two programs are run at once, the second program will generate this error.

or Try This . . .

SOLUTION: ADD MEMORY

“Allocate FG Failed” means that the sample program cannot allocate a frame grabber. Allocating a frame grabber requires only a small amount of memory. However, if a system is already tight on memory, this allocation may be enough to generate an error. This is highly unlikely on a Windows system.

error message: “Allocate buffer failed”

This error is very unlikely on a Windows system but would be generated by one of the PXR Series samples listed in Table 3.

Table 3. Complete list of PXR sample programs

PXR_Grab	PXR_Grab_RT1
PXR_Grab_RT2	PXR_LUT
PXR_Multi_Cam	PXR_Offset_Gain
PXR_ROI	Strobe
PXR_Trigger	

Try This . . .

SOLUTION: ADD MEMORY

“Allocate buffer failed” means that the sample program cannot allocate enough memory for a frame buffer. The amount needed is between 300k and 450k. If you see this message on a Windows system, it probably means there is not enough memory for the operating system, let alone a frame grabber. The solution is to add memory. For example, you might see this error on a Windows 2000 system with less than 32 MB of RAM.

Contact Information

For additional information or free technical support on all Imagination frame grabbers, please CyberOptics Semiconductor.

Website: <http://www.imagination.com>
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