



April 7, 2025

Dear Customer:

There have been reports of a problem with PCI computers that use either the RZ1000 or PCI640 PCI IDE Controller. Baseboards that use these chips include Intel baseboards commonly known as Premiere or Plato, as well as non-Intel baseboards. The latest Intel baseboards, which use the Triton chipset, do not use either chip and do not have this problem.

The problem introduces the potential for data corruption which could manifest itself as a misspelled word in a document, incorrect values or account balances in accounting software, unexplained program failures when program execution reaches a corrupted instruction in the executable code, destruction of directory trees, or even corruption of an entire partition or drive.

Intel has developed a program called CTRLTEST.EXE which tries to determine whether your computer may be affected by the PCI IDE Controller problem and for certain configurations, offers the option to fix it. Intel has confirmed through its own testing and working with the operating system suppliers that data corruption resulting from these controllers does not occur in all operating environments and within those affected, only under specific conditions.

If your computer has either the RZ1000 or the PCI640 PCI IDE controller and is normally run in DOS, any version of Windows from 2.0 through Windows95 or Windows NT v3.5 or later you are not affected by the problem.

The only operating systems of which we are aware that are affected by this problem are Windows NT v3.1 and earlier, OS/2 and Warp. We recommend you contact your operating system supplier, computer manufacturer or dealer to get a copy of the latest driver for the PCI IDE controller. In the interim you can use this CTRLTEST utility program to disable the pre-fetch buffers on your computer. If you choose, after you install the new driver, you may re-enable the pre-fetch buffers using the procedure below.

The program, CTRLTEST.EXE, also attempts to identify the RZ1000 and PCI640 PCI IDE Controllers on non-Intel baseboards, however it cannot be considered to be 100% accurate. If you know your computer has a baseboard manufactured by a company other than Intel, please contact your computer manufacturer.

This rest of this document contains:

- How to run CTRLTEST.EXE
- CTRLTEST.EXE program logic
- How to create a bootable floppy diskette
- How to re-enable the pre-fetch buffers in your computer system if it has an Intel baseboard

If you have additional questions you may contact Intel Corporation in the U.S. at 1-800-628-8686 (options 1-3-1), in Europe at (+44) 1793 431144 or send email to support@cs.intel.com.

Intel Corporation
OEM Products and Services Division

How to Run CTRLTEST.EXE

From your hard disk with the CTRLTEST.EXE file you downloaded from the Internet

1. Be certain you are in DOS, not a DOS box.
2. Copy CTRLTEST.EXE to the root directory of your hard disk
3. Type C:\CTRLTEST.EXE and press the <Enter> key
4. Answer the questions when asked

From the bootable floppy diskette you made from the files you downloaded from the Internet

1. Close or end all programs you are running
2. Turn off your computer.
3. Insert the bootable floppy diskette you made into the A:> drive
4. Turn the computer back on.
5. CTRLTEST.EXE will automatically run.
6. Answer the questions when asked
7. When the system re-boots, remove the diskette unless you plan to rerun CTRLTEST

From the bootable floppy diskette you made from the diskette you received from Intel

1. Close or end all programs you are running
2. Turn off your computer.
3. Insert the bootable floppy diskette you made into the A:> drive
4. Turn the computer back on.
5. CTRLTEST.EXE will automatically run.
6. Answer the questions when asked
7. When the system re-boots, remove the diskette unless you plan to rerun CTRLTEST

In all cases:

Be sure you run the program from DOS and do not have any memory managers running such as QEMM, EMM386 or 386MAX. If you do, you will have to re-boot and rerun CTRLTEST.

In the future, if you change the hardware configuration or alter the settings in Setup, please rerun this program.

CTRLTEST.EXE Program Logic

Key Conditions	Message Displayed
The program must be run in DOS, not a DOS window, without any memory managers in effect.	You must run this utility program from DOS without any memory management programs active. The easiest way to accomplish that is to boot your PC from a floppy diskette. For instructions on how to create a DOS bootable floppy disk, please read the accompanying Dear Customer Letter or call your computer manufacturer. You may also call Intel in the U.S. at 1-800-628-8686 (options 1-3-1), in the UK. at (+44) 1793 431144 or send email to support@cs.intel.com.
The computer does not have an RZ1000 or a PCI640 installed or It has an Intel baseboard and there is an RZ1000 or PCI640 and the CMOS settings already have the pre-fetch buffers disabled.	Your computer is not affected by either the RZ1000 or PCI640 PCI IDE Controller problem in its current configuration. If you change the hardware configuration or alter the settings in Setup, please rerun this program.
The computer does not have an Intel baseboard and there is a PCI640 present.	This computer is not built with an Intel baseboard and a PCI640 was found. You may be affected by the PCI640 PCI IDE Controller problem. Please contact your computer manufacturer for assistance.
The computer does not have an Intel baseboard and there is an RZ1000 present.	This computer is not built with an Intel baseboard and an RZ1000 was found. You may be affected by the RZ1000 PCI IDE Controller problem. Please contact your computer manufacturer for assistance.
There is an Intel baseboard in your computer and there is an RZ1000 installed and the BIOS will allow disabling of the pre-fetch buffers. N.B. This message will not appear if the computer has a PCI640 installed. All Intel systems with PCI640s do not allow disabling of the pre-fetch buffers. See the following message.	If you are running DOS, Windows 2.x or 3.x, Windows NT 3.5x or Windows 95, your computer is not affected by the RZ1000 PCI IDE Controller problem. If you are running Windows NT v3.1 and earlier, OS/2 or WARP, you should contact your operating system supplier, computer manufacturer or dealer to see if you are affected by this problem and to request an updated RZ1000 driver. Alternately contact Intel in the U.S. at 1-800-628-8686 (options 1-3-1), in Europe at (+44) 1793 431144 or send email to support@cs.intel.com. This program can make a change to the system setup to fix this problem. It accomplishes it by disabling the PCI IDE Pre-fetch Buffers. This may result in a slight loss of performance but will resolve any potential problems known to result from the RZ1000. After you receive and install the new driver you may wish to reverse the change this program can make. See the accompanying Dear Customer Letter for instructions.
There is an Intel baseboard in your computer and there is an PCI640 installed and the BIOS will not allow disabling of the pre-fetch buffers.	This computer's baseboard was built by Intel and may be affected by the PCI640 Controller problem. If you are running DOS, Windows 2.x or 3.x, Windows NT 3.5x or Windows 95, your computer is not affected. If you are running Windows NT V3.1 and earlier, OS/2 or WARP, you should contact your operating system supplier, computer manufacturer or dealer for an updated PCI640 driver. Alternately you may contact Intel in the U.S at 1-800-628-8686 (options 1-3-1), in Europe at (+44) 1793 431144 or send email to support@cs.intel.com.
There is an Intel baseboard in your computer and there is an RZ1000 installed and the BIOS will not allow disabling of the pre-fetch buffers.	This computer's baseboard was built by Intel and may be affected by the RZ1000 PCI IDE Controller problem. If you are running DOS, Windows 2.x or 3.x, Windows NT 3.5x or Windows 95, your computer is not affected. If you are running Windows NT V3.1 and earlier, OS/2 or WARP, you should contact your operating system supplier, computer manufacturer or dealer for an updated RZ1000 driver. Alternately you may contact Intel in the U.S at 1-800-628-8686 (options 1-3-1), in Europe at (+44) 1793 431144 or send email to support@cs.intel.com.
You have been given the opportunity to turn off the pre-fetch buffers and you elected not to do so.	This computer may be affected by the RZ1000 PCI IDE Controller problem.

How to Create a Bootable Floppy Diskette

Creating a Bootable Floppy Diskette from the Diskette You Receive From Intel

If you are in Windows 2.x, 3.x

1. Insert the diskette you received from Intel into the A:> floppy disk drive
2. Select File; Select Run; Type SYS A:
3. Select OK

If you are in Windows95

1. Insert the diskette you received from Intel into the A:> floppy disk drive
2. Select Start; Select Run; Type SYS A:
3. Select OK

If you are in DOS

1. Insert the diskette you received from Intel into the A:> floppy disk drive
2. Type SYS A:
3. Press the <Enter> key

Creating a Bootable Floppy Diskette with the files you download from the Internet

If you are in Windows 2.x, 3.x

1. Insert a blank diskette into the A:> floppy disk drive
2. Open the MAIN Window by double-clicking on it's icon in the Program Manager
3. Open an MS-DOS Windows by double-clicking on the MS-DOS Prompt icon.
4. Type SYS A:
5. Press the <Enter> key
6. Type COPY C:\directory downloaded file is in\CTRLTEST.EXE A:\
7. Press the <Enter> key
8. Type COPY C:\directory downloaded file is in\AUTOEXEC.BAT A:\
9. Press the <Enter> key
10. To close the DOS Window type Exit and then press the <Enter> key

If you are in Windows95

1. Insert a blank diskette into the A:> floppy disk drive
2. Select Start
3. Select Programs
4. Select MS-DOS Prompt
5. Type SYS A:
6. Press the <Enter> key
7. Type COPY C:\directory downloaded file is in\CTRLTEST.EXE A:\
8. Press the <Enter> key
9. Type COPY C:\directory downloaded file is in\AUTOEXEC.BAT A:\
10. Press the <Enter> key
11. To close the DOS Window type Exit and then press the <Enter> key

If you are in DOS

1. Insert a blank diskette into the A:> floppy disk drive
2. Type SYS A:
3. Press the <Enter> key
4. Type COPY C:\directory downloaded file is in\CTRLTEST.EXE A:\
5. Press the <Enter> key
6. Type COPY C:\directory downloaded file is in\AUTOEXEC.BAT A:\
7. Press the <Enter> key

How to Re-enable the Pre-fetch Buffers in Your Computer System if it Has an Intel Baseboard

- 1) Close or end all programs you are running including Windows
- 2) Reboot your computer by doing one of these
 - Pressing the reset button
 - Turning off the power waiting 10 seconds and turning it back on
 - Holding down the <Alt>+<Ctrl>+<Delete> keys and then quickly releasing them
- 3) Press the <F1> key when the system begins to re-boot and the “Press F1 to run setup” message appears.

This procedure will work only for those BIOSes that have menu options appearing across the top of the screen. If the menu choices are listed vertically, you cannot change the pre-fetch buffer option.

- 4) Select the Advanced Menu by pressing the right arrow key
- 5) Select Advanced Chipset Configuration by pressing the down arrow key
- 6) Select PCI IDE Pre-fetch Buffers by pressing the down arrow key
- 7) Press the <Enter> key
- 8) Select PCI IDE Pre-fetch Buffers by pressing the down arrow key
- 9) Press the <Enter> key
- 10) Select Enabled with either the up or down arrow key
- 11) Press the <F10> key to save the new setting and exit the Setup program.
- 12) When the Exit Saving Changes? Dialog box appears, press the <Enter> key
- 13) Your computer will begin re-booting