PowerPC Interrupt Extension: Read Me (2/97)

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TOPIC -----------------------------------------------------------

This article contains the ReadMe file for the PowerPC Interrupt Extension.

DISCUSSION ------------------------------------------------------

Where Can I Find the Extension online?
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* America Online - keyword: applecomputer

* CompuServe - GO APLSUP

* Internet (specific location)

ftp://ftp.info.apple.com/Apple_Support_Area/Apple_SW_Updates/US/Macintosh/System
/Other_System/PowerPC_Interrupt_Extension.sea.hqx


Overview and Installation
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* What is the PowerPC Interrupt Extension?

This system extension may improve reliability and performance on Power Macintosh
computers, PowerPC-based Performa computers, Mac OS-compatible computers, and on
desktop computers upgraded with a PowerPC upgrade card. This extension requires
System 7.5.5.


* Who should install the PowerPC Interrupt Extension?

Apple recommends installing the PowerPC Interrupt Extension for all customers
who have installed System 7.5.5 Update on a desktop Power Macintosh,
PowerPC-based Performa, Mac OS-compatible, or on a desktop computer with with a
PowerPC upgrade card.


* What does installing the PowerPC Interrupt Extension do?
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After installing the PowerPC Interrupt Extension, you may notice improvements in reliability and stability. You may have experienced your computer freezing for several seconds before returning to normal operation, or completely freezing and requiring a restart. This extension fixes one source of this problem.

* I have a PowerBook with a PowerPC upgrade card. Should I install the PowerPC Interrupt Extension?

PowerBooks, both with and without the PowerPC upgrade card, do not experience the problems resolved by the PowerPC Interrupt Extension. Therefore, it is unnecessary for customers with these computers to install the extension.

* I have a PowerPC-based PowerBook**. Should I install the PowerPC Interrupt Extension?

PowerBooks do not experience the problems resolved by the PowerPC Interrupt Extension. Therefore, it is unnecessary for customers with these computers to install the extension.

** The following computers are in the PowerPC-based PowerBook computer family: PowerBook 5300, 5300c, 5300ce, 5300cs, 2300c, 1400c, and 1400cs. Additionally PowerBook 200 and 500 series computers which have PowerPC upgrade cards installed are included in the PowerPC-based PowerBook computer family.

* I have a Macintosh based on the 680x0 processor. Should I install the PowerPC Interrupt Extension?

Macintosh computers with a 68000, 68020, 68030, or 68040 processor do not experience the problem fixed by the PowerPC Interrupt Extension. Therefore, it is unnecessary for customers with these computers to install the extension.

* How do I get System 7.5.5 Update?

To use the PowerPC Interrupt Extension, you must have System 7.5.5 Update installed. You can download the PowerPC Interrupt Extension and System 7.5.5 Update from the Internet at http://www.support.apple.com/ as well as through America Online (keyword: applecomputer) and CompuServe (shortcut: GO APLSUP). You can also order the System 7.5.5 update for $13 by calling the Apple Order Center at 1-800-293-6617 ext.1322.

* Once I install the PowerPC Interrupt Extension, do I need to do anything else?

No. The PowerPC Interrupt Extension works automatically once you install it according to the installation instructions.

* How do I install the PowerPC Interrupt Extension?

To install this extension follow these steps:

1. Locate the System Folder icon on your computer's hard disk.

2. Drag the PowerPC Interrupt Extension icon onto the System Folder icon.

3. Click on the OK button when you see the message "Extensions need to be stored in the Extensions folder in order to be available to the Macintosh. Put 'PowerPC Interrupt Extension' into the Extensions folder?"

4. Select Restart from the Special menu for the changes to take effect.

* How do I disable the PowerPC Interrupt Extension?

To disable this extension follow these steps:

1. Select Control Panels from the Apple Menu.

2. Locate the Extensions Manager icon and double click it.

3. Scroll through the list until you see PowerPC Interrupt Extension.

4. Click on the PowerPC Interrupt Extension name so that the check mark beside it disappears.

5. Select Restart from the Special menu.

Technical Details
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The following is provided for application developers and others who are interested in the technical details of the PowerPC Interrupt Extension. You do not need to understand the following information to use the extension.

The PowerPC Interrupt Extension applies a fix to the low level interrupt services on desktop PowerPC-based Macintosh, Performa, and Mac OS-compatible computers, and on desktop computers upgraded with a PowerPC. Before this fix, a condition could exist where no interrupt was pending but the computer would wait for an interrupt. In this condition the computer would ignore all lower priority interrupts and no processing would continue until a higher or equal priority interrupt occurred. In some cases this would cause intermittent, long interrupt latencies. In other cases this could cause the computer to freeze.

One condition which creates the problem is when a completion routine or interrupt task lowers the current interrupt mask value during its execution. Installing the PowerPC Interrupt Extension applies a fix which will prevent this from causing a freeze or long interrupt latency.

Article Change History:
06 Feb 1997 - Added online locations to download file.

20 Jan 1997 - Added details about which PowerBooks are PPC-based.
15 Jan 1997 - Added PowerPC-based PowerBook section.

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