Known Causes and Solutions for PC "Insomnia"
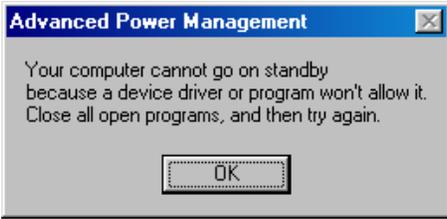
Introduction

As a general rule, computer power management (CPM) features work well on the vast majority of modern PCs. However, computers utilize an incredibly wide range of hardware components, peripherals, and software applications, and as a result, there are always exceptions to the rule. The purpose of this document is to share information on what can be done about computers that seemingly refuse to enter system standby or hibernate ("sleep") modes, despite being properly configured to do so. It is intended for system administrators or advanced PC users.

For an excellent introduction to possible causes of PC "insomnia," we recommend reading the following article from Microsoft: "How to troubleshoot hibernation and standby issues in Windows XP." This article discusses the most common reasons for PC insomnia -- including outdated or incompatible device drivers, incompatible third-party software, and outdated firmware -- and describes how to troubleshoot hibernation and standby issues in Windows XP. This article also explains how to determine whether a Windows XP-based computer supports Advanced Power Management (APM) features, such as hibernation or standby. While the article focuses on the XP operating system, its lessons are more broadly applicable to other Windows operating systems.

What follows is a list of known PC "sleep" problems, their causes, and solutions. This document will be periodically updated by US EPA ENERGY STAR technical support contractors. If you have questions, suggestions, or additions, please contact us via email at powermanagement@cadmusgroup.com.

Description of Problem	Cause	Solution
Accessing shared network drives prevents standby mode	There are times when the OS will not drop into a low power state when accessing files on remote shares. This is a "by-design" behavior to prevent the files from being corrupted on the remote host. Later versions of Windows (Vista and Win7) are less likely to exhibit this behavior.	Possible (unverified) solution: http://www.dotnetmonster.com/Uwe/Forum.aspx/dotnet-csharp/81165/Accessing-shared-network-drives-prevents-standby-mode
MS Outlook 2002, 2003: roaming profiles and/or remote PST files across network shares	See "Accessing shared network drives prevents standby mode".	
Computer will not sleep with Java running.	Java Virtual Machine inhibits sleep or hibernation.	Disable the quick start feature of Java. http://fivepercent.us/2008/08/15/windows-xp-standby-and-hibernate-problem-update-82008/#comment-61254.

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Symantec Antivirus prevents Windows Standby mode	Symantec Antivirus runs a service called rtvscan.exe that seems to be doing something every 3 or 4 minutes that results in this problem. More information at http://service1.symantec.com/SUPPORT/sunset-c2002kb.nsf/0/0917651ca342023385256edd00478def?OpenDocument&seg=hm&lg=en&ct=us	If you want to correct this problem on the computer on which you installed the client, you need to manually enable system standby rather than have the PC enter standby after a period of inactivity. You can manually enable Standby in the Shutdown Windows dialog box.
Computer does not enter standby mode if Power Options profile is set to standby after 45 or more minutes	This problem may occur when your computer is running on AC power and the standby time is set to 45 or more minutes. When your computer is running on AC power and is idle for approximately 30 minutes, the Windows XP Idle Task Scheduler service runs the system maintenance tasks, and it resets the System Idle counter while it is running these tasks. If you set the system standby time to 45 or more minutes, the Idle Task Scheduler service starts every 30 minutes, and resets the system idle counter. Because of this, your computer cannot enter standby.	Hotfix download available from Microsoft: http://support.microsoft.com/kb/310601/en-us.
System Will Not Enter Standby When Intel PROSet is installed as the Wireless LAN User Interface	When using the Intel PROSet/Wireless software on a WLAN, the notebook may not enter standby (S3) or hibernation (S4) when a timer is set. This issue is caused when an Intel PROSet message pops up, which resets the timer used for standby and hibernation.	To resolve this issue, do the following actions to disable the Intel PROSet pop up messages. 1. On the PROSet control panel, click Tools. 2. Click Application Settings. 3. Click Disable Pop-ups. 4. Click OK to save the changes and close the panel. More information available at http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?lang=en&cc=us&objectID=c00632106&jumpid=reg_R1002_USEN

Description of Problem	Cause	Solution
Windows XP Cannot Enter Standby Mode When Window Media Player Is Paused	Microsoft has confirmed that this is a problem	More information available at http://support.microsoft.com/default.aspx?scid=kb;EN-US;Q314612
HP All-in-one Products - Windows Fails to Enter Standby Mode	Windows fails to enter Standby mode because a device driver or program won't allow it. The all-in-one software does not respond to the Windows standby message. This either causes Windows to display the error message listed below or if Windows does go into standby, the all-in-one product software will stop responding when Windows resumes.	Don't run the all-in-one software unless it is needed or close it before entering standby mode. There are two possible ways to do this: • Prevent the software from running in the background by removing it from the Windows Startup group. OR • If the all-in-one product software is running, close it down by right-clicking the status icon next to the time display (usually in the lower right corner) and selecting Close before placing the computer in standby mode. More information available at http://h10025.www1.hp.com/ewfrf/wc/document?docname=bpu03073&cc=us&dlc=en&lc=en&jumpid=reg_R1002_USEN#
HP Notebook PC Does Not Enter Standby Mode in Windows XP	Quick Launch software runs as a system process and can conflict with the Advanced Configuration and Power Interface (ACPI) initialization. As a result, the notebook PC is unable to enter standby mode.	Download SoftPaq SP29255 and install updated Quick Launch Buttons: http://h10025.www1.hp.com/ewfrf/wc/document?cc=us&docname=c00379564&dlc=en&lc=en&jumpid=reg_R1002_USEN
Floppy Disk Controller Denies Hibernation or Standby	This issue can occur when Iomega Ditto Tools are installed on your computer. Ditto Tools installs drivers that prevent you from using Suspend mode.	To work around this issue, disable all power management features when you are using Ditto Tools: http://support.microsoft.com/kb/250256/en-us
Computer Does Not Enter Standby or Hibernate Mode with Altec Lansing ACS-495 USB Speakers Attached	The Altec Lansing ACS-495 USB speakers do not have hibernate-compliant device drivers and prevent the computer from entering low-power Hibernate or Standby mode.	To work around this issue, disable the speakers in Device Manager: http://support.microsoft.com/kb/261357/en-us

Description of Problem	Cause	Solution
Windows XP does not enter standby after the exact period that is configured in the Power Options profile	Even though the system appears to be idle, the Windows XP System Idle Task Scheduler service may be running system maintenance tasks. These tasks may trigger a reset of the System Idle counter. In this scenario, the computer does not enter standby. Third-party programs and services may also be running during system idle time. These programs and services may use more than 10 percent of the computer's CPU and disk resources. This level of CPU and disk utilization may reset the System Idle counter and therefore delay the system from entering standby.	None. http://support.microsoft.com/kb/899975/en-us
Computer That Is Equipped with an IBM ScrollPoint Mouse Does Not Enter Standby Mode		Turn off the Allow this device to bring the computer out of standby option for the mouse. http://support.microsoft.com/kb/305876/en-us
Diamond Multimedia Stealth II G460 Video Adapter Prevents Computer from Entering Standby Mode	This issue occurs because the Diamond Multimedia Stealth II G460 video adapter does not support System Standby mode. You cannot implement Power management reliably on a computer that uses this video adapter.	None. http://support.microsoft.com/kb/283170/en-us
Creative Modem Blaster USB DE5670 Prevents Hibernate or Standby Mode	This issue can occur if you are using a Creative Modem Blaster USB DE5670 modem. Hibernation and Standby mode depend on the ability of all devices and device drivers in the computer to support S1-S4 power states. If one or more devices or device drivers do not support low-power states, the computer cannot enter Hibernate or Standby mode.	None. http://support.microsoft.com/kb/273812/en-us
Windows XP Cannot Enter Standby Mode When Window Media Player Is Paused	When Windows Media Player media is paused, your computer may not be able to enter Standby mode.	http://support.microsoft.com/kb/314612/en-us

Description of Problem	Cause	Solution
You receive this error: The device driver for the 'PC/AT Enhanced PS/2 Keyboard (101/102-Key)'device is preventing the machine from entering hibernation. Please close all applications and try again. If the problem persists, you may need to update this driver. Alternatively, you may receive the following blue screen error: 0X000000A0 (0X00000002, 0X0007011E, 0X0000000, 0X0000000) INTERNAL_POWER_ERROR	This behavior can occur if a program installs a kernel-mode driver that attaches itself to the standard keyboard driver (I8042prt.sys). Examples of programs that exhibit this behavior include: • Pgpdisk 6.02 and 6.5 (installs Pgpmemlock.sys and Pgpdisk.sys drivers) • Adobe Type Manager 4.0 (installs the Atmhelpr.sys driver)	To workaround this issue, uninstall the offending program and reboot the system. To resolve the issue contact the manufacturer to inquire about obtaining an updated version of the product that is designed for Windows 2000. http://support.microsoft.com/default.aspx?scid=kb;EN-US;q257199
You receive the following error: "Insufficient System Resources Exist to Complete the API"	This problem occurs because the Windows kernel power manager cannot obtain the memory resources that are required to prepare the computer to hibernate. This problem typically occurs when the computer uses 1 gigabyte (GB) or more of RAM.	Install the following patch: http://www.microsoft.com/downloads/details.aspx?familyid=9D20F96A-A8D6-4627-89F7-787CD9B3852C&amp;amp;amp;displaylang=en http://support.microsoft.com/?kbid=909095

Description of Problem	Cause	Solution
You receive the following error: The device driver for com1 is preventing the system from entering hibernation.	This issue may occur if you have Quicken installed. This issue occurs because of the unsigned Mrtrate.sys driver that is installed by Quicken. The Mrtrate.sys driver is used by QuickBooks for background downloading.	To resolve this issue, contact Quicken support for a software update, or visit the following Intuit Web site: http://www.intuit.com/support/quicken Alternatively: 1. Click Start, right-click My Computer, and then click Properties. 2. Click the Hardware tab, and then click Device Manager. 3. On the View menu, click Show hidden devices. 4. Expand Non-Plug and Play Drivers, and then locate the Mrtrate driver. 5. Right-click Mrtrate, and then click Properties. 6. Click the Driver tab, and then click Stop under Current Status. 7. Under Startup, in the Type box, click to select Disabled, and then click OK. 8. Quit Device Manager. http://support.microsoft.com/default.aspx?scid=kb:en-us;810905&Product=winxp
You receive the following error: The device driver for the "ATI Technologies, Inc. 3D RAGE PRO AGP 2X" device is preventing the machine from entering standby. Please close all applications and try again. If the problem persists, you may need to update this driver.	This behavior occurs because Windows XP does not provide power management support for this video adapter. See http://support.microsoft.com/kb/303544.	• Check for updated drivers: http://ati.amd.com/support/driver.HTML • Contact AMD/ATI: http://ati.amd.com/support/driver.html
After you specify the Standby option on a computer that has an ATiXpert 98 XL video adapter, the system appears to continue running. The system fan continues to operate, and the system appears to resume when there is input from the keyboard or the mouse.	This behavior can occur because the system does not actually enter "sleep." The software driver for the ATiXpert 98 XL video adapter does not properly communicate to the operating system the data that is required to allow the system to sleep.	This behavior is by design. http://support.microsoft.com/kb/q305921/

Description of Problem	Cause	Solution
When you resume your Sony VAIO PCG-F520 computer from standby by using the USB IntelliMouse Optical, the display appears corrupted. To regain normal display, you have to restart the computer.	This behavior can occur because of a problem with the computer BIOS. See http://support.microsoft.com/kb/307084.	To resolve this behavior, obtain the latest BIOS from Sony Corporation: http://www.sony.com/index.php
If the 3D Flowerbox, 3D Flying Objects, 3D Pipes, 3D Text, or another Direct3D-based screen saver is running in Windows XP, the computer may not be able to enter standby or hibernation by using the timer in Power Management properties.	Advanced Configuration and Power Interface (ACPI) places the computer in standby only after the CPU has been idle for the specified period of time. When a 3D screen saver starts, the CPU is no longer idle, and the ACPI timer for standby is reset.	Download the Q306676_WXP_SP1_x86_ENU package: http://www.microsoft.com/downloads/details.aspx?FamilyID=516ac7c6-1704-4631-afcf-652154534800&DisplayLang=en http://support.microsoft.com/default.aspx?scid=kb;EN-US;Q306676
Windows XP Generates a "Stop 0xA0" Error Message During Hibernation	If an integrated device electronics (IDE) time-out occurs during the hibernation process, the Atapi driver does not wait long enough for the primary IDE drive to come online.	To resolve this problem, obtain the latest service pack for Windows XP. http://support.microsoft.com/kb/322389/EN-US/ http://support.microsoft.com/default.aspx?scid=kb;EN-US;Q320899

Other helpful resources

Save the Environment, Use Your Computer
http://www.enn.com/pollution/article/23970

The Computer Does Not Enter or Exit Standby Mode (Windows 95, 98, ME, XP)
http://h10025.www1.hp.com/ewfrf/wc/document?lc=en&cc=us&dlc=en&product=62740&jumpid=reg_R1002_USEN&docname=bph07147

Standby & Hibernate Issues in Windows XP
http://www.kellys-korner-xp.com/xp_standby.htm