October 1, 2011

LEVEL: Intermediate

How to Stop Windows 7/Vista Spontaneous Wake-Up

The most common reason for the unprompted (seemingly random) Windows wake-up is the computer's network card and feature called Wake-on-LAN (WOL).

First you should check the **Power Options** (in Control Panel). Click on the "Change plan settings" link for the active plan; then click on the "Change advanced power settings" and check the following settings:

1. **Sleep** – change **Allow wake timers** to "Disable". Note: Disabling Wake Times will disable all scheduled tasks that are enabled to wake the computer to run (see: "Other Possible Causes For The Spontaneous Wake-Up" on page 5).
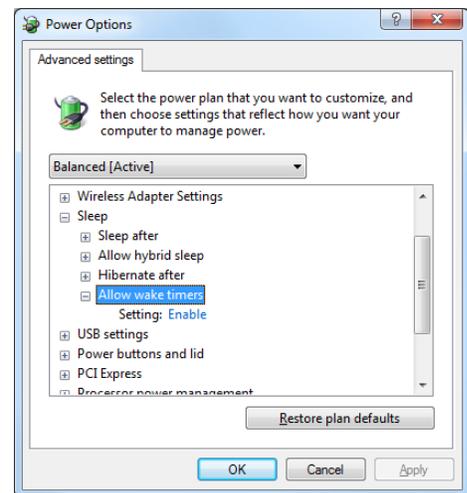
2. **Multimedia settings** – change **When sharing media** to "Allow the computer to sleep". Note: This will stop playing the media if you are, for example, streaming music to an external device (i.e. TV).
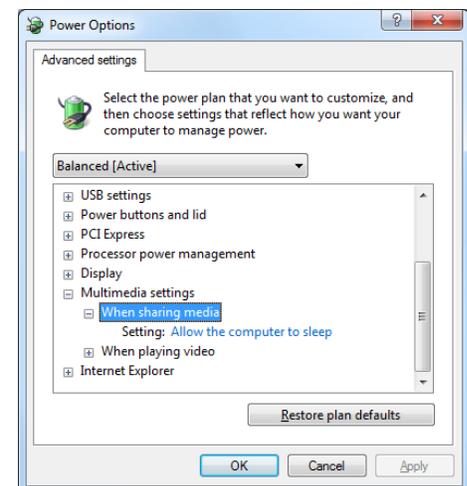

Note: While you are at it, check and adjust other Power Option settings and don't forget to save the changes.

Note: You can check active Wake Timers in the Power Configuration tool, using a -waketimers switch. In the Command Prompt window type: powercfg –waketimers (see page 4).

Configure Network Card's Power Properties

Here is how you disable a network card (NIC) to wake the computer.

Open network card's properties: Control Panel > Device Manager > Network adapters > double-click on the NIC you want to edit > click on the **Power Management** tab. On the Power Management page uncheck the "Allow this device to wake the computer" check box and click OK.
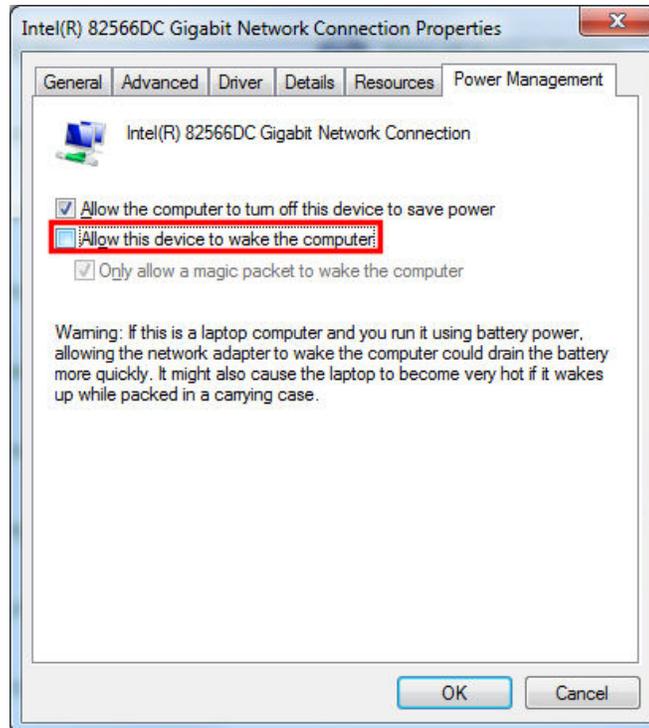
Note: Alternative way to open a Device Manager is to Right-click on the Computer icon, on desktop or in Start menu, and selecting "Properties" from the pop-up context menu. This will open a "View basic information about your computer" window (or System window). Click on the "Device Manager" link on the upper-Left side of the System window to open the Device Manager.

If unchecking the "Allow this device to wake the computer" check box doesn't fix the problem, try the advanced solution described on the next page.

Solution For The Realtek And Intel Gigabit Ethernet NIC Family of Network Cards

Realtek RTL8168B/8111B and RTL8168C(P)/8111C(P) Family Gigabit Ethernet NICs have two Wake-on-LAN properties:
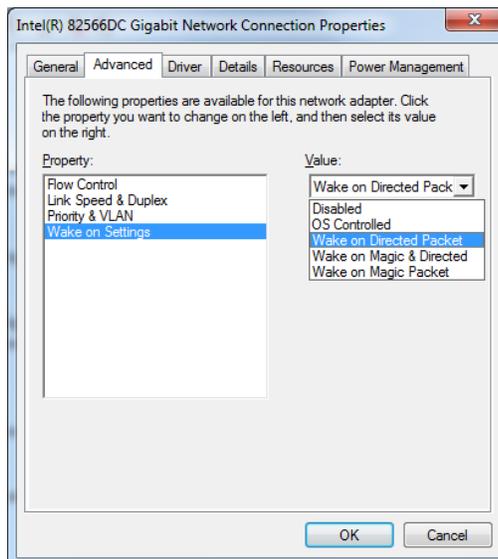
Wake on Magic Packet (hard coded)
Wake on pattern match (more flexible)

Disable the "**Wake on pattern match**" setting in the network adaptor's Advanced properties tab:
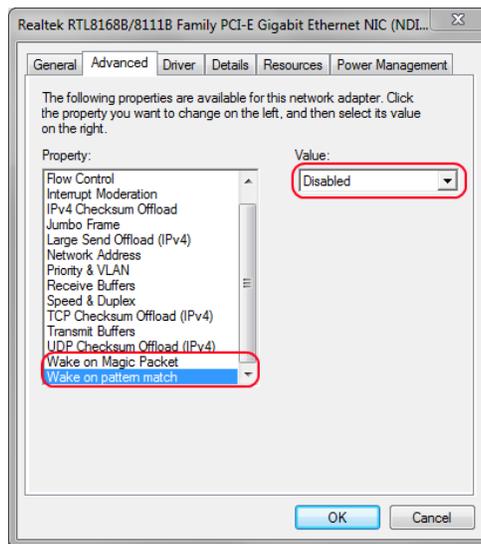
Intel Gigabit Network NIC Advanced settings have only one Wake-on-LAN setting.

Change **Wake on Settings** property to the "Wake on Direct Packet" value, and if this doesn't work disable it completely.

Find Out What Wakes Up Windows 7/Vista From Sleep

Source: http://www.cravingtech.com/fix-windows-vista7-sleep-mode-from-waking-up-by-itself.html

If changing Power Options doesn't fix the problem you should look more closely at what is causing the wake up. Windows 7/Vista has a handy tool that lets you see what is happening at the wake-up. It is called **Powercfg**.

To find out what woke up Windows from its last sleep, go to **Command Prompt** and type:

powercfg -lastwake
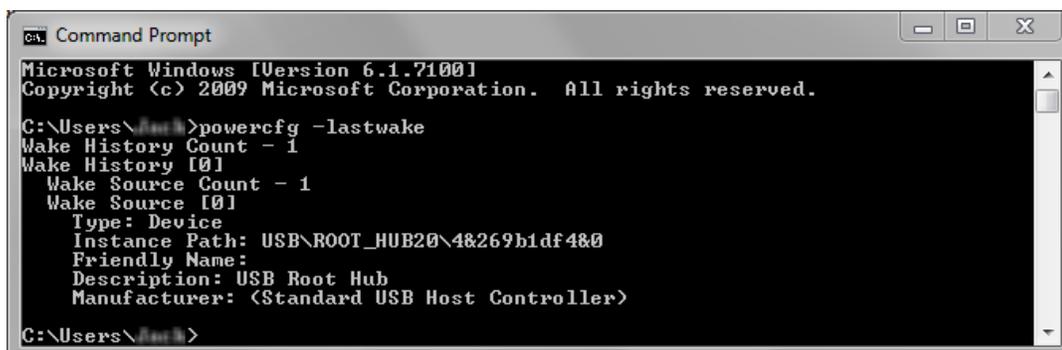
```
Command Prompt

Microsoft Windows [Version 6.1.7100]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Users\     >powercfg -lastwake
Wake History Count - 1
Wake History [0]
  Wake Source Count - 1
  Wake Source [0]
    Type: Device
    Instance Path: USB\ROOT_HUB20\4&269b1df4&0
    Friendly Name:
    Description: USB Root Hub
    Manufacturer: (Standard USB Host Controller)

C:\Users\     >
```
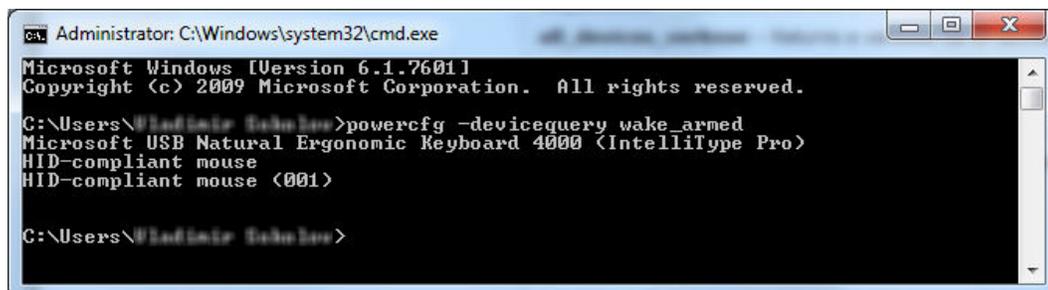
In this screenshot the computer was woken up by the USB hub,
or a device attached to it (i.e. keyboard or mouse).

To get a list of the devices that are currently configured to wake up Windows from sleep, type :

powercfg -devicequery wake_armed

```
Administrator: C:\Windows\system32\cmd.exe

Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Users\     >powercfg -devicequery wake_armed
Microsoft USB Natural Ergonomic Keyboard 4000 (IntelliType Pro)
HID-compliant mouse
HID-compliant mouse (001)

C:\Users\     >
```

In this screenshot you can see that USB Keyboard and a Mouse can wake the computer.

Note: Command Prompt can be accessed from Start > All Programs > Accessories, or by typing "cmd" into the "Search programs and files" text box.

Note: For the Powercfg Command-Line options (switches, flags) go to: http://technet.microsoft.com/en-us/library/cc748940(WS.10).aspx

Other Possible Causes For The Spontaneous Wake-Up

1. **Windows Update** (if set to automatic) – check the time of install (usually 3:00 AM).

2. **Peripherals** that might have a wake-up capabilities. I.e. USB Bluetooth adapters, Infrared receivers for Windows Media Center, USB dongles for wireless keyboards and mice, etc.

3. **Automatic Backup** programs are able to wake up the computer to run scheduled backup.

4. **Windows Media Center** (WMC) update task (mcupdate). See article:
   http://www.sevenforums.com/tutorials/121903-windows-media-center-updates-enable-disable-waking-computer.html

5. **Scheduled tasks** (most commonly updates, backups and maintenance tasks).
   Check in Start > All Programs > Accessories > System Tools > **Task Scheduler** (or type "taskschd.msc" in the Start > search text box).

   In the Task scheduler window, select the suspected task in the "Task Scheduler Library" (Left pane). The "Wake the computer to run this task" check box is in the **Power** section of the **Conditions** tab.

   A word of caution: Be careful with the changes you make here because you can break your system if you change something that you shouldn't. Research first, change small and test.