

## Everything you always wanted to know about Standby, Sleep and Hibernate



*Stump the PC Club is a free tech-advice column written by members of the **North Orange County Computer Club**, which has been in existence since 1976. Visit the club's site at [noccc.org](http://noccc.org). And don't forget to stop by the Gadgetress' home for the PC Club, at [ocregister.com/link/pcclub](http://ocregister.com/link/pcclub), to find out how to ask a question and read past answers.*

**QUESTION:** Can you please explain the difference between Standby, Sleep and Hibernate and which mode do you recommend? Also, which modes are safer with regard to data loss and which mode conserves the most power?

**PC CLUB:** This is an interesting and often confusing subject for several reasons. There are differences in performance depending on whether you're running XP, Vista or Windows 7 plus, the choices are different for desktops than they are for laptops.

Let's begin with a few definitions. Windows XP uses the term Standby but Vista and Windows 7 use the newer term Sleep. In Addition, Vista introduced another mode called Hybrid Sleep which has been carried forward to Windows 7. The description of these modes is as follows:

**Sleep** is a power-saving state that allows a computer to quickly resume full-power operation (typically within several seconds) when you want to start working again. Putting your computer into the sleep state is like pausing a DVD player; the computer immediately stops what its doing and is ready to start again when you want to resume working. This mode does consume a little power.

**Hibernation** is a power-saving state designed primarily for laptops. While sleep puts your open documents and programs in memory and draws a small amount of power, hibernation puts your open documents and programs on your hard disk, and then turns off your computer. Of all the power-saving states in Windows, hibernation uses the least amount of power, essentially none. On a laptop, use hibernation when you know that you won't use your laptop for an extended period and won't have an opportunity to charge the battery during that time. Hibernate results in a faster boot time compared to booting from a powered off state.

**Hybrid sleep** is designed primarily for desktop computers. It is a combination of sleep and hibernate; it puts any open documents and programs both in memory and on your hard disk, and then puts your computer into a low-power state so that you can quickly

resume your work. That way, if a power failure occurs, Windows can restore your work from your hard disk. When hybrid sleep is turned on, putting your computer into sleep automatically puts your computer into hybrid sleep. Hybrid sleep is typically turned on by default on desktop computers.

Note: you must enable the Hibernate mode before Hybrid Sleep becomes an available option.

**Question** - if Hibernate results in a faster boot time, why not always use it? The reason is that Windows needs to be totally shut down periodically to rejuvenate itself.

**To enable Hibernate:**

**XP or Vista** – open the Control Panel and select Power Options. Select the Hibernate tab and place a check in Enable hibernation. You can disable it here also by unchecking the option.

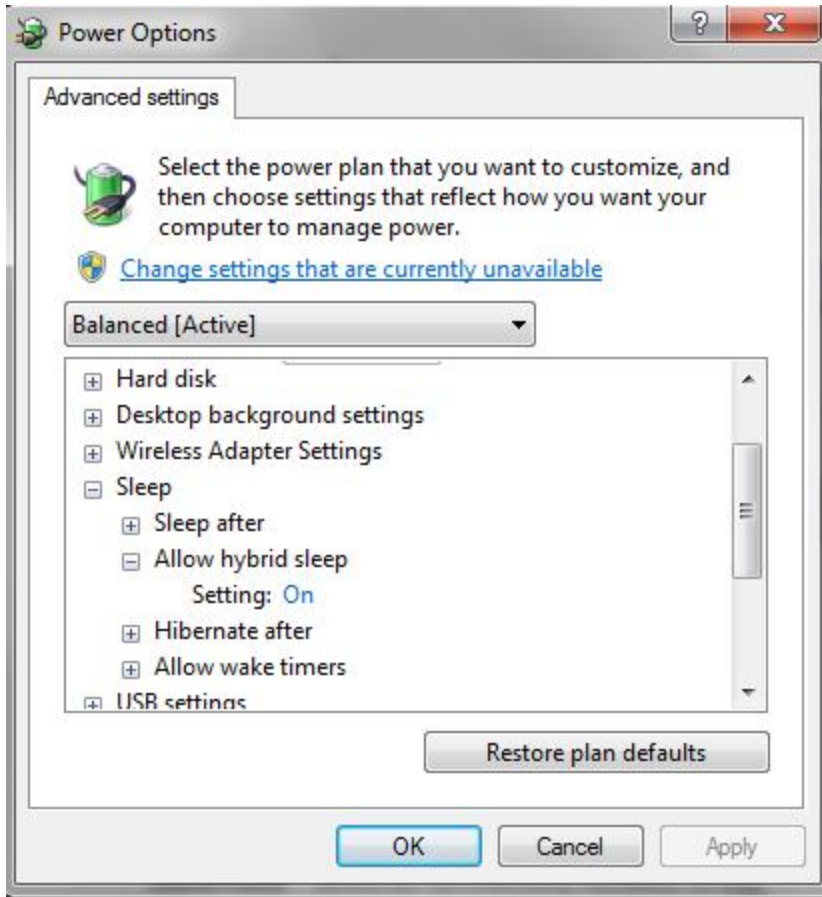
**Windows 7** – click Start, All Programs, Accessories and right click Command Prompt and choose Run as administrator. You must be logged in with Administrative privileges to do this. In the window that opens type the following:

**powercfg –h on**

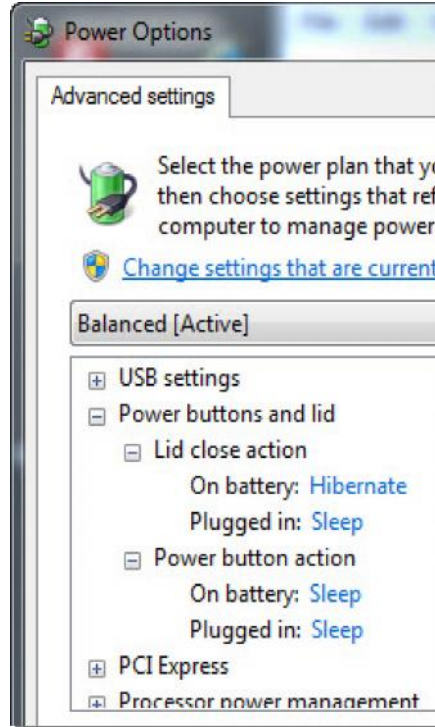
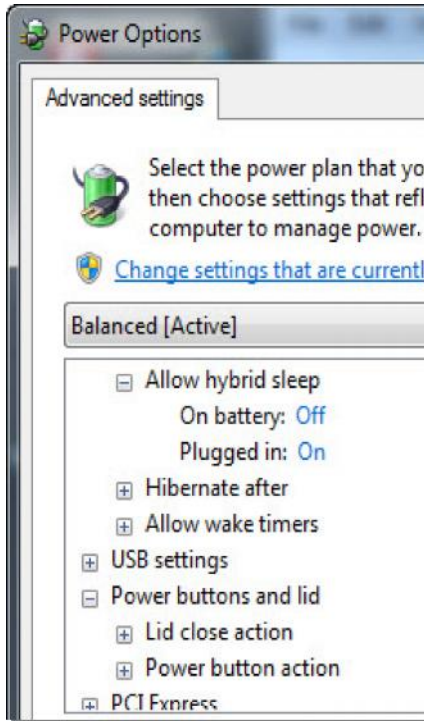
Type “exit” to close this window. You can change the word “on” to “off” in the line above to disable hibernation.

**To enable Hybrid Sleep:**

**Vista or Windows 7**– you must enable Hibernate first then open the Control Panel and choose Power Options. Click Change plan settings and then click Change advanced power settings. Scroll down until you see Sleep listed. Click the little (+) plus sign to expand the choices. Expand Allow hybrid sleep. If it says Off next to Setting, click it and a drop-down box will open allowing you to change the setting to On. Click OK and close all windows.



When using XP with Hibernate enabled, you will have a choice to Shutdown, Standby or Hibernate. Using Vista or Windows you will have the same choices unless you enable Hybrid Sleep. In this case, Hibernate is not an option. The choice labeled Sleep is now Hybrid Sleep.



Notes:

- Laptops can be set up with Hybrid Sleep On when plugged in and Off when on battery; the Start menu will contain an option to Hibernate only when on battery.
- Laptops can have various options for what happens when you close the lid. These settings are under Advanced Power Management also.
- My Windows 7 desktop boots in 100 seconds from a Powered Off state, in 50 seconds after Hibernation and wakes from Sleep in 12 seconds.

To learn more about this topic, visit the Microsoft FAQ at <http://bit.ly/hibernate2> and for a neat free utility called Wake on Standby (WOSB) go to <http://bit.ly/standbyutil>.

- Ed Schwartz, NOCCC member. View his blog at [www.edwardns.com/blog](http://www.edwardns.com/blog).