

# ENERGY MANAGEMENT FOR YOUR "WINDOWS.." COMPUTER: A COMPARISION OF SLEEP, HYBRID SLEEP, AND HIBERNATE

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# SUMMARY

The energy management features in your "Windows.." computer let you do partial power-downs of your computer so that you can re-start exactly where you left off in your open and minimized Web browser windows and in all open and minimized windows of your software programs.

# TOPICS

- Basic Concepts of PC Power Management
- Sleep
- Hybrid Sleep
- Hibernate
- Some Programs Are "Sleep Proof"
- Set Up "Brightness Profiles" For Your Monitor(s)

# BASIC CONCEPTS OF PC POWER MANAGEMENT:

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- The energy management features in your "Windows.." computer let you do partial power-downs of your computer so that you can re-start exactly where you left off in your open and minimized Web browser windows and in all open and minimized windows of your software programs.

# BASIC CONCEPTS OF PC POWER MANAGEMENT (continued)

- These energy management features can dramatically reduce the delays that are caused by multi-tasking between your computer and non-computer activities.

**SLEEP:**



# SLEEP

"Sleep" shuts off many parts of your computer but it keeps your RAM and other parts of your motherboard powered up so that you can start up where you left off by clicking a mouse button or a keyboard key.

## SLEEP (continued)

If your computer loses power during "sleep", your minimized and open windows are lost from RAM and the computer cannot restore them for you.

# HYBRID SLEEP:

# HYBRID SLEEP

- "Hybrid sleep" does everything that "sleep" does but it also stores all open and minimized windows in a "hyberfil.sys" file.

## HYBRID SLEEP (continued)

- If your computer loses power during "hybrid sleep", when you restart the computer, it will use the "hyberfil.sys" to restore all minimized and open windows so that you can start where you left off.

**HIBERNATE:**

# HIBERNATE

- "Hibernate" shuts off all power to your computer after it saves all minimized and open windows to a "hyberfil.sys" file.

## HYBERNATE (continued)

- When you power up your computer again, it reads the "hyberfil.sys" file to restore all minimized and open windows so that you can start where you left off.



**SOME PROGRAMS  
ARE "SLEEP  
PROOF":**

# SOME PROGRAMS ARE "SLEEP PROOF"

- Some alarm clock programs can wake up your computer from "sleep" but they cannot wake up a computer from "hybrid sleep" or "hibernate".

# SOME PROGRAMS ARE "SLEEP PROOF" (continued)

- One example of a sleep-proof alarm clock program is "Free Alarm Clock", which can be obtained at <http://freealarmclocksoftware.com/>

**SET UP  
"BRIGHTNESS  
PROFILES" FOR  
YOUR MONITOR(S):**

# SET UP BRIGHTNESS PROFILES FOR YOUR MONITOR(S)

- To save even more electricity, set up various brightness profiles for your computer's monitor(s) so that your computer monitor is not overly bright for a given amount of ambient light.