



## IT@Intel Technology Tips

Intel Information Technology

March 2011

Intel IT creates and publishes articles for Intel employees to educate them on a variety of information technology subjects. Our goal is to help them improve productivity, take advantage of new IT services and raise awareness on other IT topics of interest. We've modified these articles from their original version for sharing with external audiences.

# Ten ways to reduce your computer's energy need

*How to make your PC more energy efficient and help save the environment (and money)*

Who says it's hard to save money, even in a down economy? There's a quick way to cut your expenses, and it's literally at your fingertips. Your computer - desktop or notebook, at work or from home - can burn major wattage each month, especially if you're not careful about its energy use settings. A few minor adjustments to how your machine operates can cut your annual electricity bill by \$25, \$50, maybe even \$100 or more, depending on your computer's exact model, its degree of use and your local energy rates.

Sure, \$50 is less than a tank of gas these days. But still - would you throw away a \$50 bill? And that savings goes up if you have more than one computer regularly in use. Imagine how much Intel as a whole could save if every employee cut power usage by a mere 10 percent.

And then there's the environmental aspect to consider. Saving \$60 a year in energy costs through PC power management also cuts computer-produced CO<sub>2</sub> emissions by nearly 500,000 pounds, a higher total than lowering your home thermostat by two degrees Fahrenheit in the winter, or replacing a half-dozen standard light bulbs with compact fluorescents (not that we're discouraging you from those energy-saving tactics!). Intel's goal is to help reduce global CO<sub>2</sub> emissions from the operation of computers by 54 million tons per year, equivalent to the annual output of 11 million cars or 10 to 20 coal-fired power plants - and a collective savings of \$5.5 billion in energy costs.

Want to get started? Here are 10 easy ways to cut energy use while using your computer, at work or at home.

### Number 1: Think power management

The use of power management can cut energy consumption and cooling costs, reduce noise, and prolong the battery life of notebook PCs. When enabled, **power management** places your monitor, hard drives and computer into a low-power "sleep" mode after a period of inactivity.

Touch the mouse or keyboard and the computer, hard drive and monitor "wake up" in seconds. Power management features are standard in Windows and Macintosh operating systems. To improve the power efficiency of your PC, the [Climate Savers Computing Initiative](#) recommends the following power management settings:

**Monitor/display sleep:** Turn off after 15 minutes or less

**Turn off hard drives/hard disk sleep:** 15 minutes or less

**System standby/sleep:** After 30 minutes or less

Instructions for enabling power management vary by operating system. Check the instructions for your operating system.

## Number 2: Get in the habit

Ever notice how if you want to shut your television off, you'll spend 10 minutes looking for a misplaced remote instead of simply pressing the "off" button on the TV set? The same concept applies with computers. Save power by manually putting your system to sleep (and locking it) when you leave the desk. For example, on certain notebooks, use (**Fn + F4** keys) instead of using the more-complex **Ctrl + Alt+ Delete + k** function.

## Number 3: Think twice about that screen saver

Screen savers are not necessary on modern monitors, and studies show they actually consume more energy than allowing the monitor to dim when it's not in use. This will also extend your battery life, if you're a long way from home with your notebook.

Go to **Control Panel > Personalization > Screen Saver**

Under the **Screen Saver Settings** window, scroll through the Screen Saver menu and select (**Blank**) (see Figure 1). Click **OK**.

## Number 4: Turn down the brightness setting on your monitor

The brightest monitor setting consumes twice the power used by the dimmest setting.

For example, on certain notebooks you can use the power brightness keys - **Fn + Home** (for up) or **Fn + End** (for down).

On a desktop unit, the brightness controls can usually be found on the front of the monitor.

## Number 5: Go on standby

Switching to standby can also be a major-league power saver: a typical monitor consumes 30 watts to 140 watts while on, but less than 3 watts while on standby. The recommended setting is for your computer to go to standby after no more than 30 minutes of inactivity.

Go to **Control Panel > Power Options**.

Under the **Power Options** window, select the Power plan that best suits your needs or create a new power plan.

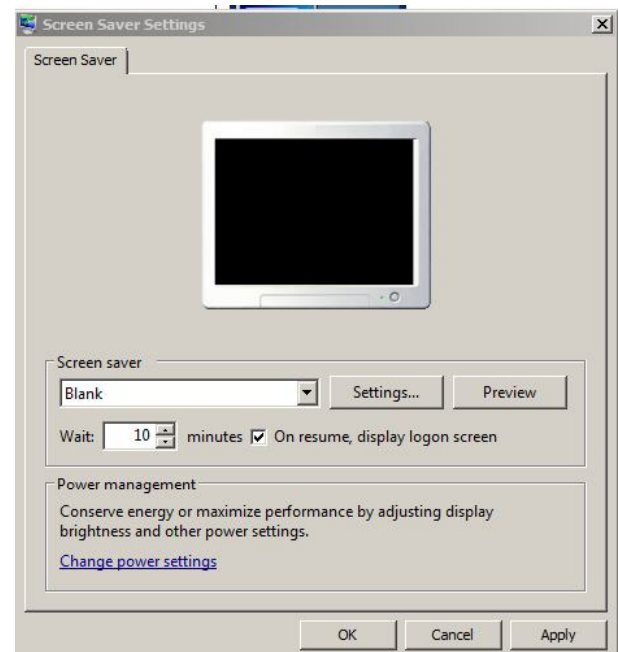


Figure 1: Screen savers are more of an energy-draining novelty on today's monitors. Opt for a dimming monitor instead.

### **Number 6: Cut the power when possible**

Turn off peripherals such as printers, scanners and speakers when not in use. Fight "phantom" or invisible power use by plugging all your electronics into one power strip and turning the strip off when you are finished using your computer.

### **Number 7: Change work partners**

Switch to a notebook computer instead of a desktop, as notebooks usually consume less energy.

### **Number 8: If it's not being used, shut it off**

Keeping multiple applications open slows down your computer and sucks up the battery life. If you no longer need that application, tell it goodbye - for now.

### **Number 9: Establish multiple power schemes to address different usage models**

For example, you can create a power scheme for playing music CDs that shuts off your hard drive and monitor immediately, but never puts your system into standby mode. Note that different operating systems offer various degrees of complexity in terms of how much customization you can perform with the schemes.

### **Number 10: Watch for program compatibility**

Many popular computer games and other third party software packages that run in the background will not allow the computer to go to sleep - even if they are paused or the active window is minimized. Ditto for Web sites or pages with active banners or animated advertisements that will not allow the computer to sleep on its own and must be closed, or the computer put manually into a sleep state.

**For more straight talk on current topics from Intel's IT leaders, visit [www.intel.com/it](http://www.intel.com/it).**

This paper is for informational purposes only. THIS DOCUMENT IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF ANY PROPOSAL, SPECIFICATION OR SAMPLE. Intel disclaims all liability, including liability for infringement of any proprietary rights, relating to use of information in this specification. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted herein.

Intel, the Intel logo, and other Intel products or trademarks are trademarks of Intel Corporation in the U.S. and other countries.

\* Other names and brands may be claimed as the property of others.

Copyright © Intel Corporation. All rights reserved.

Printed in USA

Please Recycle

0311/JLG/PDF

