

## Pros & Cons of Preloaded Software

Today's consumers are so used to receiving a new PC with Windows and Microsoft Office already installed that it is almost expected. In many cases this makes sense. But did you know Microsoft attaches some hefty limitations to preloaded software?

### Pros

The two most obvious benefits of buying Microsoft software preloaded on a PC are price and convenience. Microsoft provides software to Original Equipment Manufacturers (OEMs) at a big discount over retail prices. The OEM installs Windows and Office before delivering the PC to their customer, saving the user a couple hours of time and trouble figuring out what drivers to install for which hardware and generally making the PC work properly. The user receives a PC they can turn on and use right out of the box.

### Cons

In return for these benefits, Microsoft places two important limitations on preloaded software. One is that users cannot contact Microsoft for free technical support. Instead, they must contact the manufacturer of the PC (for instance, ITS).

Another potentially more important limitation is that Microsoft considers the preloaded software as part of the PC. That means it *cannot be transferred* to a new PC, when an old one is replaced. The software must be discarded and repurchased for the

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## Windows XP SP2: Is It OK Yet?

Windows XP Service Pack 2 (SP2) arrived with much fanfare this past August. Immediately ITS and other IT organizations the world over recommended most people hold off on installing SP2. Why, given all the security upgrades trumpeted by Microsoft? Can SP2 be a good thing *and* a bad thing? How does one avoid installing an automatic update? And, more than two months later, *is it finally safe* to install Service Pack 2?

### Why SP2 is Good

A Windows *service pack* includes all previously released updates for Windows, plus often provides additional updates or functionality. Normally these new features are minor, however given the recent public outcry over the persistent Windows worms and security issues, Microsoft has refocused on security. With that in mind they made major changes to Windows, in five areas: network protection, memory protection, e-mail, web browsing security, and computer maintenance.

SP2 includes the renamed Windows Firewall, and the biggest change is that it defaults to being on for all network connections. This is a fantastic improvement for home users without a broadband router between their PC and the Internet, since unprotected PCs on the Internet are probed within a few *minutes*, on average! Microsoft has also improved security on intra-network communication, making it harder for worms and viruses to infect a PC.

For memory protection, Microsoft has implemented checks to prevent *buffer overruns* (when attackers send too much data to a program thus opening a door for themselves). Microsoft has leveraged *data-execution prevention* (DEP) on newer CPUs such as the

AMD Athlon 64. This lets the CPU prevent buffer overruns at a hardware level.

One of the most welcome changes is the improved Internet security in SP2. A new version of Internet Explorer (only available in SP2) greatly lowers the likelihood of spyware and adware infection. Users with Windows 98 or 2000 should consider using other, more secure, web browsers. Microsoft has also improved the handling of attachments in Outlook, Outlook Express, and Messenger, to better isolate and protect a PC from infected file attachments.

Finally, the new Security Center in SP2 alerts users to out of date virus protection, as well as the status of firewall protection and Windows' Automatic Updates feature.

### Why SP2 is Bad

Windows Firewall and the improved network security can cause problems for programs that depend on intra-network communication. For example, *client/server* software (workstation software that has another part of itself running on the server, such as an SQL database) may have problems communicating. If configured improperly, the firewall may interfere with file and printer sharing. Also, tools to manage a computer from across the network may be prevented from working due to the firewall.

The new Security Center may cause

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### Speed Reading

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unnecessary concern, since at the time of SP2's release no antivirus vendor supported it. SP2 flags the status of all antivirus programs as "unknown" and alerts the user. Also by default it warns users if either Windows Firewall or Automatic Updates are disabled, two items corporate networks may want turned off. While Automatic Updates may sound like a good thing, if an update causes a problem it can be hard to diagnose if a user is unaware an update was installed. A better option is to check for updates regularly.

At a hefty 200 MB+ in size SP2 is a daunting installation, and can take up to an hour to install on older PCs. Following several very serious problems with users who installed SP1 via Windows Update, ITS recommends either downloading the 270 MB "full" update file, requesting a free CD from Microsoft, or having ITS install it for you. SP2 does require up to 1.6 GB of free disk space during installation.

### Is SP2 Safe To Install?

ITS feels SP2 is safe for home users to install, though corporate users should be a bit more cautious. Certainly the Windows Firewall can be disabled on a properly protected network. By now software vendors have had time to release updates for programs that have serious problems with SP2. However many are updating their most recent versions first, and updating older versions over time, if at all. Check with vendors of any critical software before installing SP2. Microsoft also recommends checking your PC for spyware, updating any programs to support SP2, and backing up important files...always a good idea when updating one's operating system.

ITS has posted our latest information on SP2 online at ITS StartCenter ([www.teamITS.com/start](http://www.teamITS.com/start)), where you can also find anti-spyware utilities and alternative web browsers. Our SP2 page also has instructions on how to disable the automatic updating feature in Windows entirely, and also a method to postpone just the SP2 installation.

# Trends

## Dual Core Processors Boost CPU Power

This year will likely see a decided market shift to the newer 64-bit CPU computers. In that arena, AMD is poised to unseat Intel as the CPU of choice for the PC market. In response to (some would say because of) increased competition between AMD and Intel, both companies are looking for ways to eke more speed out of their chips.

Previously we discussed Intel's HyperThreading (a.k.a. HT Technology), a technique to have one CPU behave more like two, allowing multiple programs to run faster than if a PC had only one CPU. Think of how much more a person with two brains could do simultaneously, and you get the idea.

The next logical step is to actually stuff two or more CPU *cores* into one physical chip. The core of a CPU contains the main processing unit, and essentially *is* the CPU. The result? AMD claims that even running at a lower clock speed and power level, their

dual-core chip will be 25% to 40% faster than their similar chip with only one core. AMD also plans to make their early Opteron dual-core CPUs compatible with existing Opteron computers, allowing an instant speed upgrade for a heavily used, yet recently purchased, server.

The benefits to users? Multiple programs can run without slowing down the entire system. With two "brains" a computer will be able to think in parallel, for example allowing the user to run an anti-spyware scan in the background while continuing to work in other programs - with no perceptible slowdown. Also, higher performance with less components and lower power requirements promise higher reliability and lower cost to consumers. Microsoft plans to license its server software per-processor, not per-core, facilitating inexpensive hardware upgrades without requiring additional software expenses.

# Humor

## New Virus Releases

by unknown

**Oprah Winfrey Virus:** Your 200 GB hard drive suddenly shrinks to 80 GB, but then slowly expands back to 200 GB.

**AT&T Virus:** Every three minutes it tells you what great service you are getting.

**MCI Virus:** Every three minutes it reminds you that you are paying too much for the AT&T Virus.

**Paul Revere Virus:** This revolutionary virus does not horse around. It warns you of impending hard disk attack: once if by LAN, twice if by C:>.

**Politically Correct Virus:** Never calls itself a "virus," but instead refers to itself as an "electronic microorganism."

**Ross Perot Virus:** Activates every component in your system, just before the whole darn thing quits.

**Mario Cuomo Virus:** It would be a

great virus, but it refuses to run.

**Ted Turner Virus:** Colorizes your old monochrome monitor.

**Arnold Schwarzenegger Virus:** Terminates your session and then disappears. It'll be back.

**Dan Quayle Virus:** Thers sumthin rong wit yur komputerw butt ewe jsut cant figyout it out!

**Government Economist Virus:** Nothing works, but all your diagnostic software says everything is fine.

**Gallup Virus:** Sixty percent of the PCs infected will lose 38 percent of their data 14 percent of the time (plus or minus a 3.5 percent margin of error).

**Texas Virus:** Makes sure that it's bigger than any other file.

**Airline Virus:** You're in Dallas, but your data ends up in Singapore.

# Tips

## Bullet Time

Microsoft Word's automatic bulleting feature is a definite time saver for creating spiffy lists.

When making a bulleted list, did you know you can control the appearance of the bullets? Use the Bullets And Numbering dialog box when you want to create a new bullet style. Access this dialog box by choosing *Format* then *Bullets And Numbering* from the menu, or by double clicking a bullet symbol from an existing list. Several styles are displayed, or you can change one by using the *Customize* button to choose another symbol. Click OK to exit the Bullets And Numbering dialog box, and Word will remember the bullet format you chose and assign it to the Bullets button on the Formatting toolbar so you can start your next list faster. Clicking once on an existing bullet will cause Word to select all bullets in the list, and you can then use the Formatting toolbar to change their appearance.

Word can also convert any symbol into bullets as you type, using the AutoFormat As You Type feature. First, select *Tools* then *AutoCorrect* from the menu bar (*AutoCorrect Options* in Word 2002 and later) to open the AutoCorrect dialog box. Next, click on the *AutoFormat As You Type* tab. In the Apply As You Type section, select the *Automatic Bulleted Lists* check box, and then click OK. Now, you can easily convert any symbol character into a bullet. To do so, select *Insert* then *Symbol* from the menu bar. In the Symbol dialog box, choose the symbol you would like to use, and then click Insert. Click Close to dismiss the Symbol dialog box. Now, type two or more spaces after the symbol you inserted, followed by the text you want to accompany the first bullet point. Finally, press Enter, and the symbol converts to a bullet, with the list continuing on the next line.

## Q & A

**Why does my computer suddenly seem very slow, especially on the Internet, and occasionally lose time?**

Likely you have a "pest." As we predicted earlier this year, pests (including spyware and adware) have become a serious problem. Often they interfere with Internet searches and browsing, reading the downloaded data in order to display their own ads. ITS has links to several anti-pest utilities on ITS StartCenter ([teamITS.com/start](http://teamITS.com/start)) as a good starting point. However pest software is often very difficult to find and remove; fortunately ITS can help with pest removal and prevention.

**Why is my wireless connection so slow and intermittent?**

Aside from walls and distance, there are a few things that will actively interfere with wireless networking connections. Cordless phones operating at the same frequency as wireless

networking (2.4 GHz) are a common culprit. Less well known are microwaves and large metal objects such as doors and filing cabinets. Changing channels on your phone may help, but a better solution is to use a 5 GHz or 900 MHz cordless phone instead and disconnect all 2.4 GHz phones.

**When geeks talk about a program or dialog box "having focus" what do they mean?**

*Focus* is the term for the active window – the window that is paying attention to you, the user. For example, when you save a Word document using File/Save As, the main Word window loses focus and the dialog box that appears gains focus. The main Word window stops paying attention to your typing and keystrokes and the Save dialog box starts. Usually the "focused" window is indicated by a different color title bar and other visual cues.

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new computer, even if the old computer will no longer be used.

What happens, then, to a PC that is upgraded, not replaced? Microsoft has taken the position that all components of a PC may be upgraded except the motherboard. If a new motherboard is installed, the PC is considered "new" and the originally installed software *can no longer be used*. There is an exception for in-warranty repairs, but not for out-of-warranty repairs.

## Alternatives

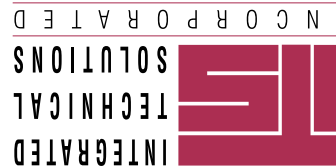
An organization purchasing software for several computers, or one that often upgrades and replaces PCs, should consider one of Microsoft's volume licensing options. This strategy entails purchasing five or more licenses and a CD containing the software. Since the software is not "part" of a PC, it may be removed from one PC and installed on another at will. Microsoft even lets customers mix and match products to reach the minimum number of five licenses.

As a bonus Microsoft offers several options to their licensing programs, over and above retail and OEM versions. For example, most applications such as Office can be installed on a secondary portable device for use by the same person as the primary PC. Microsoft Office has a "work at home" license available so employees can install and use Office at home if desired. Most Microsoft programs also have an option for Software Assurance, a program which essentially provides free product upgrades during the contract term. Microsoft even provides a way for businesses to pay for volume licenses over a three-year period if they enroll in Software Assurance.

Microsoft's licensing options may not make sense for everyone but in some cases it makes sense to forgo the up front discount from preloaded software for the ability to move that software to another PC later. The long term savings may pay for the extra up front expense. Fortunately ITS can help analyze these alternatives.

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