TECHNOLOGY

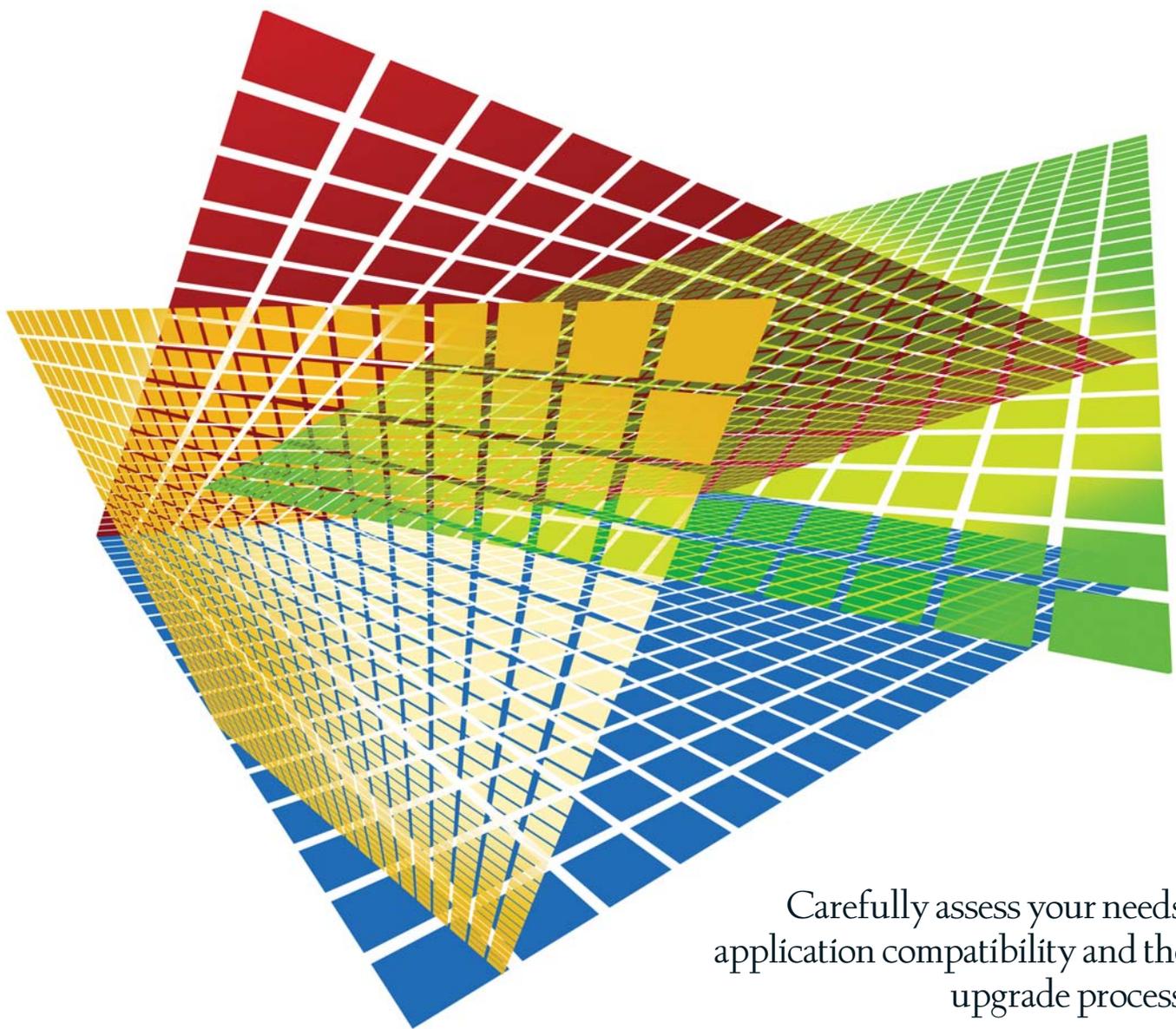# Windows 7:
Is It Right for You?

Carefully assess your needs,
application compatibility and the
upgrade process.

by Susan E. Bradley, CPA/CITP/CFF

Windows 7, the newest version of Microsoft's desktop operating system, comes with numerous functional improvements over its widely used predecessors, Vista and XP. Some of these enhancements—such as more powerful hard drive search and data encryption capabilities—will save time and boost security; others, including 64-bit application support and Apple-like multifinger touch-screen technology for resizing windows, will enable you to do things you couldn't do on a Windows PC until now.

For CPAs, two questions accompany the arrival of the new OS: How does it differ from Vista and XP? And what's the best way to evaluate whether Windows 7 can improve computing in your firm? This article will help you find the answers.

QUESTION #1: WHAT'S NEW?

Differences from XP and Vista. Windows 7 introduces powerful advantages over its predecessors, and resolves some of the shortcomings that plagued earlier Windows operating systems.

Among its innovations, Windows 7 enables PCs to use up to 128 gigabytes of random access memory (RAM) for faster processing and running several applications at once without crashing or slowing.

It also improves efficiency in the use of existing hardware, strengthens security at the OS and browser levels, and reduces or eliminates Vista deficiencies, such as frequent, intrusive OS requests for user identification.

Take your pick. Three versions of Windows 7 are suitable for businesses:

■ *Windows 7 Professional* edition is best for most business users because it enables them to connect to a corporate network. Professional, which supports XP Mode (see below), costs $199 for an upgrade, or $299 for a full version for PCs without an OS.

■ *Windows 7 Ultimate*, the most versatile and powerful edition, includes all the features of Windows 7 Professional and adds Bit-Locker, a hard drive encryption tool, Direct Access, a remote connectivity technology, and BranchCache, a communication tool for satellite offices. An upgrade to Ultimate costs $219; the full version costs $319.

■ *Windows 7 Enterprise* has the same features as Windows 7 Ultimate, but is sold only with Software Assurance, a business license agreement that ensures you always have the latest version of Windows 7, provides technical support, facilitates companywide deployment, and is suitable for larger enterprises.
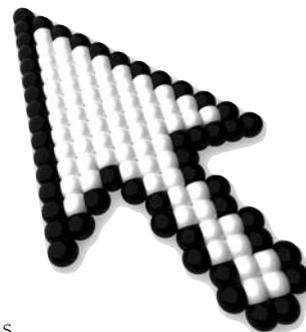
New ways to be more productive. One Windows 7 feature that may increase your productivity is file *libraries*. You no longer need to search all over your computer for documents, images, music or other files stored in different locations.

Libraries are similar to folders in Vista or XP, except that they are virtual. The files in libraries can be stored in any folder, even on different computers, but are grouped together for easier display and access. For example, you can create a library of your ❖

EXECUTIVE SUMMARY

■ **Windows 7 is Microsoft's new operating system.** Businesses and individuals should assess their key applications' compatibility with Windows 7 and its included browser, IE 8. Download and run Microsoft's Windows 7 Upgrade Advisor on each PC to identify potential hardware or software conflicts.
■ **Most PCs running Vista should be upgraded.** Windows 7 will make those workstations run faster, their hardware can run it, and the upgrade is not complicated.

■ **PCs that are two to three years old and running XP should not be upgraded.** There's another year of service left in such machines, and the upgrade isn't simple. So for now, save your money, and get Windows 7 on a new PC next year.
■ **While Vista users can upgrade to Windows 7 easily,** XP users (those with newer machines worthy of being upgraded) must employ Microsoft tools to back up and later restore their PCs' data and settings when installing Windows 7. The new OS

will work best when preinstalled on new hardware with certified device drivers to ensure compatibility.
■ **Three editions of Windows 7 are appropriate for businesses:** Professional—the best choice for most organizations; Ultimate—the most versatile and powerful edition; and Enterprise, which is identical to Ultimate, but adds OS upgrades and technical support, at extra cost.
■ **Windows 7 supports 64-bit code.** If your applications are compatible with it, and you opt to buy a 64-bit machine, your PC

will easily handle large spreadsheets, run multiple applications more smoothly, and optimize the performance of security software.

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Exhibit 1 — Windows 7 System Requirements

To run Windows 7, your PC must have at least:

- 1 gigahertz (GHz) or faster, 32-bit (x86) or 64-bit (x64) processor.
- 1 gigabyte RAM (32-bit) or 2 GB RAM (64-bit).
- 16 GB available hard disk space (32-bit) or 20 GB (64-bit).
- DirectX 9 graphics device with Windows Display Driver Model 1.0 or higher driver.

  To enhance compatibility, productivity or security, certain features require additional hardware. In particular, BitLocker requires Trusted Platform Module (TPM) 1.2, and BitLocker To Go requires a USB flash drive; Windows XP Mode requires an additional 1 GB of RAM, an additional 15 GB of available hard disk space, and a processor capable of hardware virtualization with Intel VT or AMD-V turned on. For further details, visit **windows.microsoft. com/systemrequirements**.

Source: Microsoft.

photos of a particular person or occasion, and browse through them there, even if the photos physically are in your Photos folder, or scattered throughout your documents folders. The same file can appear in any number of libraries.

You also can *pin* a program to the taskbar so it's just a click away. While the application is open, but minimized, you can see a thumbnail preview of it by hovering over the taskbar.

Two other enhancements simplify resizing and scrolling windows. Say you want to compare two documents. Use your mouse—or your fingers, if you have a touch-screen PC—to "grab" each document's window, and pull it to the edge of the screen. Windows 7's new *Snap* feature will neatly display the two documents side by side.

Similarly, if you need all but one window out of the way, grab the top of that window and "shake" it to minimize all other windows. Shake that same window again to fully restore the minimized windows.

Searching with Windows also is easier, and the function is more powerful. Using applets known as *gadgets*, you can search a specific location on your computer, your network or even the Internet. And there are many other types of gadgets you can add to your Windows 7 desktop for easy access to frequently used tools and information sources. For example, gadgets can display photo slide shows or news headlines right next to your open programs. So it's easy to stay abreast of news while working on a document; the headlines are always visible. If one interests you, click on it, and your browser will open the related article.

Enhancements to Internet Explorer 8, which is bundled with Windows 7, include features such as "In Private Browsing," which lets you surf Web sites without leaving a trace of your visit. Additional new browser security gives applications access to only certain areas of the file system and registry, so malicious software, or *malware*, that conceals—and prevents you from countering—system intrusions by hackers can't gain a toehold there.

Windows 7 Enterprise and Ultimate editions can be linked to Windows Server 2008, Release 2, which enables secure remote access to a corporate network without the help of virtual private network software.

Windows 7 Upgrade Evaluation Plan for CPA Firms

As my firm's technology leader, I won't automatically upgrade all our PCs to Windows 7. Instead, I will follow a plan, applying these criteria.
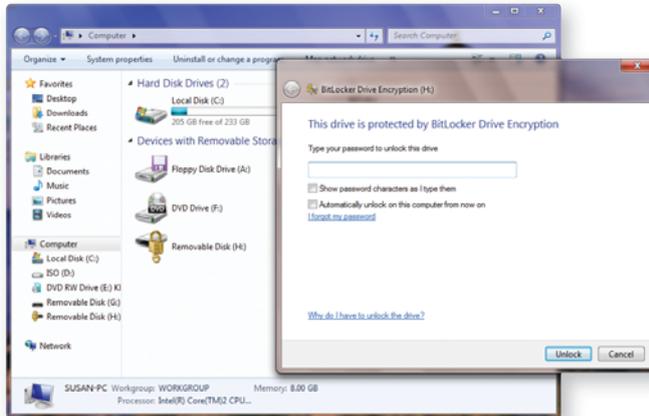
I will upgrade all Vista PCs to Windows 7. The process is simple, and the new OS makes those workstations run faster. But I won't advocate an upgrade for other PCs. For example, I still have some PCs on XP, and will for awhile, even though Windows 7 is available. As time passes, I will gradually move XP users to Windows 7.

If an XP PC is a few years old, I will not upgrade it. An XP-to-Windows 7 upgrade is cumbersome, and that PC can provide another year of service with XP. Especially if we're happy with an XP machine's performance, we will save our money now and buy a new Windows 7 PC next year.

The upgrade decision depends on how old the hardware is. In my firm, servers have a five-year lifespan, and workstations last for four years. Then we replace them. I expect that a year from now, everyone in my firm will be using Windows 7.
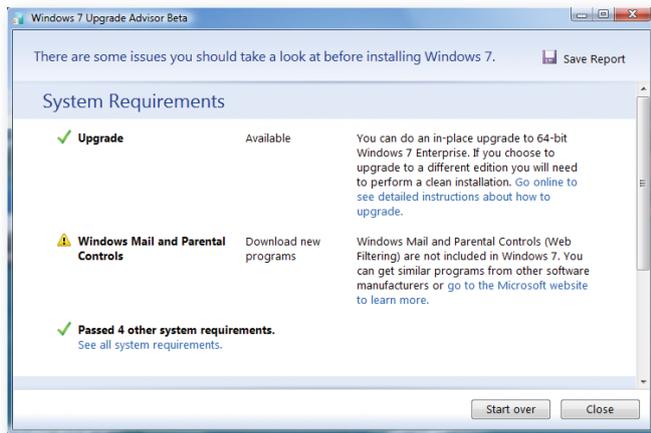
Most people who need a new computer today should seriously consider getting it with Windows 7 preinstalled. Vista will remain on sale at least through January 2010. But even though vendors are offering a free Windows 7 upgrade with any new Vista PCs they sell, it makes sense to skip Vista and get your new PC with Windows 7 already on it. XP will be available for some time to come, but not on all new PCs, and only for an additional charge. Instead, avoid the extra fee, and use Windows 7's XP Mode.

These advanced editions also include a data security program, BitLocker To Go (see screenshot below), which encrypts the contents of a USB portable data storage device, such as a flash drive. The data it encrypts are readable on PCs running Windows XP, Vista or Windows 7; all you need is the encrypted file's password (see "Protect Your Portable Data—Always and Everywhere," *JofA*, June 09, page 30).

the new OS on your current hardware. Plus Windows 7 corrects the sluggishness and other shortcomings some Vista users have complained about. It boots faster than Vista, extends your laptop battery's life, and wrings better performance out of your existing equipment.
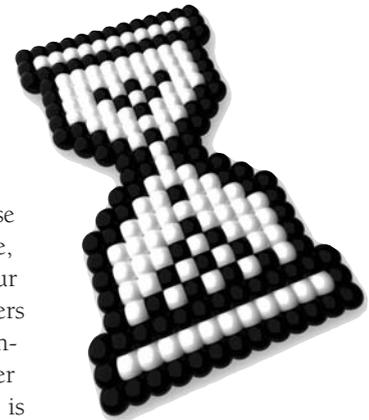
For XP users who want to upgrade, the new OS will perform best when preinstalled on new hardware. This ensures that the computer vendor has provided drivers certified to be fully compatible with Windows 7.

Don't bother upgrading an XP PC that is more than three years old; its outdated hardware can't take full advantage of Windows 7's capabilities, such as 64-bit processing and XP Mode's hardware virtualization. It would be better to wait until such a machine has reached the end of its useful life and then replace it with a new Windows 7 machine (see sidebar, "Windows 7 Upgrade Evaluation Plan for CPA Firms").

But if you choose to install Windows 7 on a newer XP PC instead of buying a replacement machine, first get advice from a knowledgeable IT consultant or visit the online communities listed in this article's resources box.

If your PC runs XP, you cannot upgrade to Windows 7 without first completely removing XP. You'll need to make copies of your data and settings, erase everything on your hard drive, and install Windows 7 on your newly "clean" PC. Microsoft offers backup and restoration tools, including Windows Easy Transfer (**tinyurl.com/q8876o**), which is bundled with Windows 7. Windows Easy Transfer is designed to transfer settings from one computer to another, but can be used to save files you designate to an external location during an OS upgrade, and then transfer them back. Another tool, User State Migration (**tinyurl.com/rdbng6**), is designed for large-scale deployments.

Compatibility with your software and hardware. Along with its advantages, Windows 7 presents the challenge of determining whether your hardware and key applications will run properly with the new OS and IE 8. To find out, check with your vendors and perform some analyses yourself. First, download and run the Windows 7 Upgrade Advisor (**tinyurl.com/pn49ms**), a free Microsoft tool that tests whether your current hardware and software will run smoothly with Windows 7 (see screenshot at left). Before you run the Upgrade Advisor, plug into your PC any peripheral devices you use regularly, such as printers, external hard drives or scanners. After Upgrade Advisor scans your PC, it will either list your upgrade options or indicate what, if any, ❖

QUESTION #2: WHAT SHOULD BE IN YOUR FIRM'S WINDOWS 7 EVALUATION PLAN?

The following criteria will help you determine whether the new OS could significantly improve your firm's computing power, security and business efficiency.

Consider the big picture. Say you're a seasoned Vista user and have mastered its intricacies well enough to function effectively, or you're running XP more or less happily and don't really yearn for a faster, quicker booting PC. Do you need Windows 7?

Microsoft's primary supported path for migration to Windows 7 is an uncomplicated upgrade from Vista. Because a Vista PC meets Windows 7's system requirements, you can simply install

hardware and applications are incompatible with the new OS. Exhibit 1 lists the hardware necessary to run Windows 7.

When you review the requirements of your antivirus and system security software, look for information on what their compatibility tests have shown. Also, be sure to obtain the latest version of the "engine" at the core of each of these applications. A list of Windows 7-compatible antivirus products is available at **tinyurl.com/knr5zz**.

For users of older business software that requires XP, Windows 7 Professional and Enterprise provide a simulated interface called XP Mode (see screenshot below) that lets you run 16-bit or 32-bit applications on the 64-bit Windows 7 platform. XP Mode requires a microprocessor that supports hardware virtualization—the ability to simulate the presence of a second operating system on a PC—so be sure to check this detail with the manufacturer before you upgrade or buy a new computer.
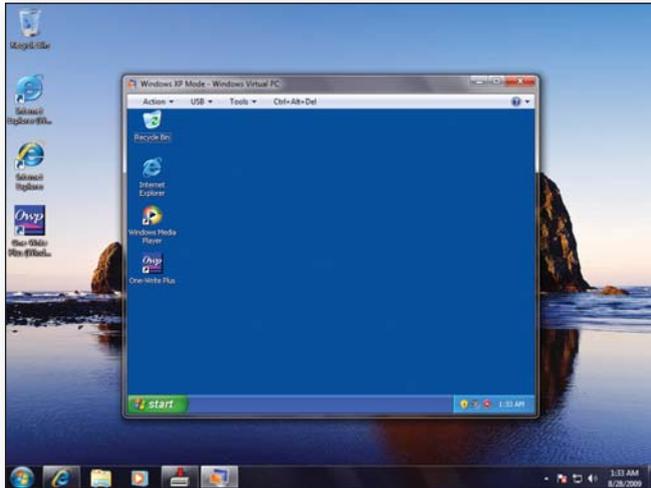
If any of your vendors say their products won't run properly in IE 8, you can load IE 6 or 7 in XP Mode to run those applications. But if your programs do run properly in IE 8, installing the new browser on a PC running XP will not be nearly as secure as using IE 8 over Windows 7. Vista and Windows 7 provide a *protected mode* for IE 7 and 8, but XP does not offer this added layer of security, which prevents hackers from installing files or changing settings on your PC without your consent. When a Windows 7 user browsing with IE 8 comes across a Web site with malicious content, the browser will close automatically or let the user close the window without ill effects.
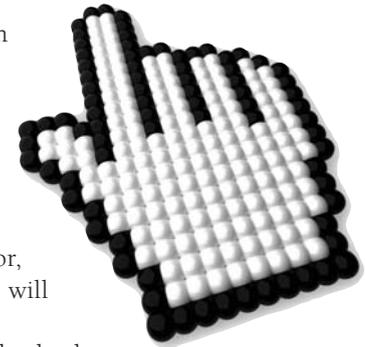
All editions of Windows 7 make the most of your system's memory. While the minimum stated requirements (**windows. microsoft.com/systemrequirements**) for Windows 7 are the same as for Vista—at least 1 GB of RAM for 32-bit systems—Windows 7 uses the RAM more effectively. This is particularly helpful to netbooks and other computers with minimal memory.

The 64-bit question. When evaluating Windows 7, it's essential that you ask your software vendors whether your key applications will function normally in the new OS's 64-bit operating environment—or, if they won't, whether they will run in XP Mode.

Tax practitioners should check with their tax software vendors to see whether the 2009 versions of their programs will be compatible with Windows 7 natively or with XP Mode. If your vendors say they will not support 64-bit processing until next year, wait until then to move to Windows 7.

The same consideration applies to the hardware aspects of the upgrade decision. If you decide to buy a new system and opt for a 64-bit processor, and do not check with your vendors in advance to see whether their software runs properly on 64-bit hardware, you'll have to hope that your new system's processor supports the hardware virtualization that XP Mode requires. That would not be an efficient deployment of new technology.

Find out also whether 64-bit drivers are available for your printers and other key peripheral devices. On a 64-bit platform, all device drivers must be digitally signed by hardware vendors to protect your PC from malicious software.   ❖