

## GUIDE TO / LEARNING / REFERENCE

June 1998

Smart Software Upgrades

Timely Purchases Can Boost Your PC's Usefulness

Computer company ads scream at you to get the newest, fastest, and most full-featured software available. But in the world of computers, the best doesn't necessarily mean the latest and greatest system. Finding programs that suit you and your needs is what makes your computer system a useful tool rather than an overpriced, rarely-used gadget.

But determining what's best is not an easy chore. When you own a computer, you will sooner or later need to make decisions about upgrading its software. These decisions can be a tough call. Some people avoid the issue altogether, using their tried-and-true software because they're wary of trying anything new. Others are human guinea pigs, trying out unproven software as soon as it hits the market.

The smart computer user, however, assesses his or her needs carefully and considers all aspects of upgrades, including operating systems, new software products, cost, and more.

### Lay The Foundation.

Before you consider upgrading your software, first consider upgrading your hardware. This might seem like an odd recommendation, but if you don't have the proper hardware foundation, your software enhancements might be wasted. You don't want to buy software that is too powerful for or is underutilized by your computer. If you're using your computer primarily for household tasks, you'll have very different needs, for example, from someone who is telecommuting.

So before you run out and buying the latest software, consider some hardware upgrades as well. Read the hardware upgrade articles in this section to give you an idea of your options.

### A Newer OS Is (Usually) Best.

Because newer operating systems (OSes) can run more and better software than older OSes, upgrading your operating system can increase your other software options. When deciding among operating systems for PCs, you should first ask yourself what you plan to use your system for. If sending text-based E-mail is the only thing you use your computer for, and you've been happily plugging away on your Windows 3.x machine, an OS upgrade probably is not necessary.

But say, for example, you are a Windows 95 (Win95) devotee, and your work requires you to perform office-type applications. You may want to upgrade to a Windows NT Workstation machine because that operating system is targeted more toward business. And, for example, if you are planning to acquire new software for a growing home-based business and your computer runs on Win95, you can save time in the future by upgrading to Windows 98 (Win98) now, so you don't have to upgrade the software to make it compatible with Win98 later.

While some of the upgrade decision is based upon your system needs and your own comfort level in learning new operating systems, part of the upgrade choice depends upon the operating system itself. New operating systems are notoriously full of bugs (flaws in the program) when they first hit the market.

“We generally recommend not to get the first version, but Windows 98 looks OK,” says Peter Maureemootoo, a computer consultant at Greenbrier & Russel of Schaumburg, Ill. “Basically, Windows 98 is a more stable version of Windows 95,” although he still cautions upgrading to it immediately. On the other hand, “Windows NT 5.0 is significantly different from Windows NT 4.0,” he says. “We recommend not to get it until after the first bug fix.”

Ben Nguyen, vice president of B&B Office Solutions in Mobile, Ala., also cautions against upgrading your operating system right away.

“Microsoft throws programs out there and lets the customer catch the bugs,” Nguyen says. But, he adds, “Windows 98 makes it easier to load and access programs. It’s the customer’s call to buy now or wait.”

Another important consideration is the cost of an operating system upgrade. If you’re upgrading from Win95 to Win98, the upgrade will probably sell for about \$100. That price may be worth it. If, for example, you want to upgrade to Windows NT 4.0, and if you have an earlier version of Windows NT, it will cost you less than \$150. But the upgrade won’t work on machines that don’t have Windows NT already installed, meaning you will have to pay more than twice that amount to upgrade from a Win95 machine.

Hidden costs are also important to consider. You might have to spend time training yourself or employees on a new operating system. If you install an operating system incorrectly and it crashes, you could lose days of productivity. Find out whether the new operating system can coexist peacefully with your old one. If so, you might consider installing the new operating system in a separate directory on your hard drive.

#### Needs Assessment.

After your hardware and operating system are up to snuff, you are ready to improve the quality of your software. Software upgrades can give you needed features, speed up your work, and make your work easier. But before you up-grade your software, you should first determine what you need.

Judy Bennett of Information+Graphics Systems of Boulder, Colo., knows this well.

“A major consideration for me is what my clients need me to have so I can share information with them,” the computer consultant says. “If I upgrade to a version they don’t have, it’s more difficult for all of us.”

As an example, Bennett sites her reliance upon Microsoft Office to create and edit important files, and her clients use both Office 95 and Office 97. Although Word for Microsoft Office 97 is supposed to be backward-compatible with Word for Microsoft Office 95, that isn’t always the case, so Bennett has both versions on her machine and she creates files using both. What if she needs to create one file that will run on both versions?

“I go with the least-common denominator, which is the lower of the two versions,” she says.

How can you determine what you need? Ask yourself the following questions.

- Am I using the software now? It's tempting to pick up the latest copy of Microsoft Internet Explorer or Netscape Communicator, but if you rarely go on the Web, you don't want to spend time installing and training yourself on a piece of software you rarely use, even if it is free.

- Does the upgrade fix my current problems? If the answer is no, then upgrading makes no sense. On the other hand, if you're encountering a little glitch, you may find it makes more sense for you to download a patch rather than invest in a whole new piece of software.

- Does the upgrade have new features I need, and do I need them now? Upgrading can be very expensive. You can save yourself lots of money and time if you upgrade, say, every other version rather than upgrading every version.

- Will I need help with an upgraded version? As we mentioned before, software upgrades tend to have problems with bugs, and you should check into the quality of the technical support the company provides. If you don't have the time or energy to figure out how to use an upgraded version's features, it might just sit on the shelf.

- Can I afford an upgrade? If the new features will make it easier and quicker for you to perform tasks, the upgrade could be extremely cost-effective.

After you've looked at your needs, it's time to gather information about the software. The Internet is a valuable tool. The software manufacturer's Web site often has press releases and links to product reviews. Internet newsgroups carry on long discussions about new features, bugs, and more. Plus, Internet mailing lists allow you to ask all sorts of questions.

Along with the Internet, you may find help from local computer user groups around the country. And, of course, one of the best places to find information about software upgrades is from reading fine computer magazines, such as PC Novice and Smart Computing.

#### Installation Tips.

When you're ready to upgrade your software, it's important to keep in mind that a smooth installation can save you numerous headaches later.

David Krieger, president of Mr. Software Computer Consultants in South Orange, N.J., has compiled a checklist of things to consider and do before and during a software upgrade installation.

- Back up your system. Before installing new software, you should make backup copies of everything on your current system, including all your system files (such as your Config.sys and Autoexec.bat files). Backup applies to more than the current system; software manufacturers usually allow you to make a backup copy of the software upgrade. If you can back up the upgrade, do so, although this is becoming less common as many upgrades are either released on CD-ROM or available on the Web for download as many times as you would like.

- Test the upgrade. Do you have a computer you aren't using? It's a good idea to test a new piece of software on a secondary computer. If you're installing this upgrade on your home system, this may not be feasible, but if you're doing so at work, ask your co-workers or employer for a test computer.

- Make it easy on yourself. When installing an upgrade, you're probably installing on top of a path name that has already been created. Set your path names directly to a name you'll remember so you can go back in and work with them later.

Here are Ben Nguyen's tips for installing software.

- Install software with installation wizards. Windows 95 (and Windows NT) has an easy-to-use installation program, accessible via the Start menu. Using the installation wizard will ensure the program is compatible with Windows 95; if you don't use the wizard, you may have conflicts later.

- Always use a virus program. Even though you have installed the program before, the upgrade will have new code, and a virus program can protect you against unwanted code sneaking into your system. This is especially important if you download the upgrade from a Web site that is not the manufacturer's own or that you cannot verify as reputable.

#### Cost Considerations.

When it comes to buying software, remember the cost of programs is usually about the same no matter which vendor you purchase it from. Therefore, we recommend you buy products from companies you trust. You may save money upfront by going through a non-certified distributor, but if it goes out of business, you might be stuck without support.

Unfortunately, upgrades can be expensive, and one way to save yourself some money is to upgrade with every other release rather than every new release. This situation is changing, though, thanks to widespread use of the Internet. Companies often put free versions of new releases or beta versions on their Web sites, and you may save money by acquiring the latest, albeit widely untested, upgrade.

One last tip: If you buy your upgrade in a package, don't forget to check the box. Many companies offer rebates on the front of their boxes, but after you've paid for the upgrade, it's up to you to take advantage of them.

by Heidi V. Anderson

#### The Meaning Of Version Numbers

Have you ever looked at software versions and wondered what all those numbers stood for? Software is inconsistent when it comes to version numbers, but manufacturers tend to follow general rules. Here's a handy reference guide.

No version number. If you have a piece of software—we'll call it "Generic Software"—with no version number, it's probably the product's first release. As common sense should tell you, the first time the product is released, it is likely not to have a version number, and games often lack version numbers. The program also might be called "Generic Software 1.0."

Major version number, minor version number, patch level (or update) version number. If you have just picked up a copy of "Generic Software 2.1.3," the first digit, 2, stands for the major version of the software. This means the software has undergone a major revision from version 1.0. The program will have new features and has undergone a major rewrite in its code. The program might have a new interface, added functionality, and run faster.

The second digit, 1 in our example, stands for the minor version number. This number represents new features of the product, but most likely the software has

not undergone significant rewriting of its codes. For example, a company may add database support to a product and then release a new minor version of that product.

The third digit, 3 in our example, is called the “patch level” or “update” version number. Companies generally release a product with a new patch number when customers have complained about bugs in the program. The software manufacturer adds a patch level version number when it wants to quickly get the fix version onto the market, but it is not yet ready to release a new major or minor version.

Beta versions. Sometimes, you will see a software release with a letter in the version number. Most of the time, that letter will be a “b,” which stands for a beta (or trial) version of a new product or updated release. Companies don’t always make their beta versions available to the general public. Often, they will open up a beta trial to a limited number of customers. Often, beta versions are available only as downloads from the Internet to the general public (you won’t find them sold in software stores). A beta version will almost always be in the form “3.0.b” or “2.b” and not “3.1.0.b” because software companies won’t perform beta tests on an insignificant patch

level change.

## Registering Software

When you buy new software, the last thing you want to do is fill out the product’s registration card. But it’s important to register all software, even up-grades, and you may even be required to do so if you’re downloading the upgrade from the manufacturer’s site on the World Wide Web.

The registration process may be more palatable, however, if you know the benefits you’re receiving. Many companies offer technical support to registered users only, a logical move on their part when you consider the size of the market for pirated software. Also, software registration forms often ask you which type of computers you own, and registration responses might prompt manufacturers to consider enhancements, such as creating versions for other operating systems.

And what if your upgrade has a bug? If the manufacturer has your name and address, it can mail you important information on how to avoid and fix the bug.

Of course, the benefits of registration work both ways. Companies know that repeat customers are a good source of revenue, and the database they can compile from the registration information allows them to send you and others special fliers and facts about other products they make. But watch out for companies that sell their mailing lists. If you want to avoid receiving an avalanche of unwanted mail, include a request in writing when you register that your name not be sold.

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Upgrades Made Easy

Find The Software You Need On The 'Net

Remember back in the old days when to upgrade your computer system you had to trudge to the computer store . . . three miles each way . . . barefoot . . . in the snow?

OK, so maybe your effort didn't rival your parents' school days, but as old-timers will tell you (or as you may know yourself), upgrading your PC used to mean multiple trips to the store or multiple phone calls to a software or hardware manufacturer—or both. With the rapid growth of the online world, this has changed. Now, you can get a complete update, try a new demonstration version, and fix a bug in your program, all without stepping out of your home or office.

The Internet is a handy tool for those who want and need software upgrades. You can download the latest edition of your favorite software. You can try out new features without paying for an entire program. And you can choose from a wealth of information online. Here's a look at how to use the Internet efficiently to upgrade your software.

### What To Know.

First, let's take a look at what you'll find on the World Wide Web. When it comes to software upgrades, the Web is a boon to both software manufacturers and consumers.

Suppose you run a small business from home and have discovered a fabulous accounting package. You've used it for two years and can't imagine working without it. It helps you track payroll information, keep tabs on your receivables, and perform a variety of other necessary tasks.

But now your business is growing, and the current version of your software isn't sufficient for handling all your employees' data. Coincidentally, a new version of this accounting package has been released, and the new version is much more scaleable (able to process a greater number of entries). In addition, it likely has some other features that you can take advantage of, such as an improved interface.

Rather than buying a whole new package, you can go on the Internet and acquire the latest version. Most software manufacturers make updated editions of their content available on the Web—and for good reason. Think of the cost savings companies can achieve by not footing the bill for packaging costs, mailing fees, etc. There also are marketing benefits; software companies can track how many customers are updating old software and how many customers are buying the software for the first time. Companies also can encourage registration by forcing users to register for the update before they download it. To take advantage of online updates, you just locate the software (more on that in a minute), download it, install it, and you're ready to go.

Another important use of the Internet in upgrading is adding new programs that enhance an entire system's functionality. Many companies offer demonstration versions of their software that you

can try out to see if it can enhance your computing experience. Demonstration versions of software (often called “demos”) can show you improvements you can make to your system without requiring you to invest a lot of money in software you may not need.

Hundreds of companies offer trial versions of software, often with either time restraints (the most common is a 30-day time limit) or limited functionality (you get added features by buying a different version). Some software companies even let you download the complete version of the software, and after the month-long trial is over and the software “locks” itself, you can fill out a Web form or call in or fax your credit card number, and the company will then send you a “key” that lets you remove the lock.

Demos and upgrades are fine for checking out new programs and features, but what happens when the software you already have has a bug and the company has not yet released a version that fixes that bug? This is where patches come in. A patch is a piece of object code (code that is produced by a compiler) that copies over the offending code and fixes the bug. Software companies often will release patches when after they release a product, users discover bugs, and the company wants those users to get a “quick fix” before the company can get the product upgrade on the market.

Jasc Software is one such company that employs patches. The makers of the useful Paint Shop Pro screen capture utility offers online maintenance upgrades to licensed users of its products. Users first obtain a registered version of the Paint Shop Pro software. Then, they can go to the Jasc Web site (<http://www.jasc.com>) to download a patch, and the site warns visitors that “these patches will only work on the registered versions of our products.”

Once the download is complete, users run the patch, and it modifies the original program.

Most patches work only on registered versions of software—this discourages unauthorized copying or pirating of software—but you may find an occasional patch that modifies unregistered software. Also, you should be aware that some software needs to be “patched” in steps. In our above example, Jasc users who have Paint Shop Pro 4.0 and want to upgrade to 4.14 need to first download and run the Paint Shop Pro 4.12 upgrade patch and then run the Paint Shop Pro 4.14 patch.

### Driving Your Hardware.

Not only can you upgrade your software over the 'Net, but you also can upgrade the software your hardware needs to communicate with your computer. These programs are called device drivers, and if you need to upgrade a hardware device, you also need to upgrade the hardware's driver. Most drivers come with your operating system, but if you buy a new device, you might need to load a new driver.

Not surprisingly, Windows 95 and other operating systems perform best when you have the correct drivers. You may not notice it, but updated drivers often lead to better performance or contain new features not available in the original versions. Therefore, it's a good idea to update your drivers whenever possible.

How does all this relate to the Internet? Plenty of information about drivers can be found online. Several notable Web sites, such as WinDrivers.com (<http://www.windrivers.com>), contain all you need to know about drivers. Then, there are all the company Web sites that offer drivers that can be downloaded.

A case in point is NEC, which recently released the Superscript 860 Laser Printer for Windows NT 4.0. Previously, the printer was compatible with other operating systems but not Windows NT, which is used by many corporations with internal networks. NEC announced the product availability with a press release on its Web site and also made the driver available via download at the site.

The Internet also is a great place to upgrade a certain piece of software all 'Net users have: the Web browser. Thanks to the Web browser marketplace war between Netscape Communications and Microsoft, and the minor skirmishes with other companies, both of the major Web browsers are being upgraded regularly. At one point, Netscape offered a standard version of Netscape Navigator 3.0, with upgrades to 3.01, 3.0 Gold, 3.01 Gold, as well as beta versions of 4.0. Microsoft also offers a variety of Microsoft Internet Explorer versions, the latest of which is version 4.x.

No matter which version you have, up-grading these two popular Web browsers is a snap. Under your browser's Help menu, you'll see a menu choice that reads either Software Updates (in Navigator) or Product Updates (in Explorer). (If you use another Web browser, you may or may not be able to use this option.) Selecting this option will take you to the browser manufacturer's update page where you can get the latest upgrade to your browser.

One of the neat features of these "smart update" pages is they can remember which components you've installed and suggest new components to make your system work better for you. They also provide you with detailed information on how to configure your browser to perform the tasks you need it to do.

#### Where To Go.

Now that you know what the Internet can do for you when you're ready to upgrade, you need to know where to look for software upgrades.

An obvious online place for upgrade information is the Web site of the manufacturer of the software you want to upgrade. Increasingly, companies are adding downloadable upgrades on their product pages. Just go to the company's home page and look for a button labeled "Products" or type upgrade or update in the Web site's search engine. You also might find information about upgrades in online press releases, which are usually found within the "About Our Company" sections. Web search engines, such as Yahoo! (<http://www.yahoo.com>) and MetaCrawler (<http://www.metacrawler.com>), also are good spots for finding upgrade information (although it is useful to search by product name when using them).

Online computer stores also are worthy sources of upgrade information. Superstores such as Egghead (<http://www.egghead.com>) often promote upgrades on their home pages. During a recent visit, Egghead featured the Windows 98 upgrade package. Some of these stores have upgrade sections where they either link you to company pages or actually sell the upgrades themselves. If they don't have specific update areas, however, you can still find useful information. You can learn about the latest version of the software and compare it to similar products on the market.

Another Internet source that is less well-known but certainly a prize is Versions!—a new, free service that is sure to take off when it becomes more widely known. Versions! sends you an



E-mail message each time the developer of a product you have chosen releases an upgrade.

With more than 63,000 listed products; a search engine that searches by keyword, product name, or developer; and optional notification of new products, Versions! (<http://www.versions.com>) is a must-see for those considering upgrading. Versions! also offers a premium service that lets users search for articles containing information about software upgrades.

Of course, the Internet isn't the only place for upgrades information. If your modem connection is down, or you just need to get out of the house, you can head down to your local computer store and compare software boxes. Most upgrades will prominently mention new features. Or, you can read the manual for telephone numbers and Web site information.

#### What To Do.

You've located the up-grade you want, and you're ready to download and install it. Here's how.

First, make sure your system can handle the upgrade. If an upgrade offers cool, new features, it may gobble up more resources. Check those system requirements carefully. Also, be sure the upgrade works with your current version of the software.

Second, read the directions! Most Web sites have either a separate Readme file or Web page. We recommend you either memorize these directions or print them; during installation, you likely won't be able to read them.

Third, choose an appropriate place to save the upgrade. You might need access to the older version of the program; what if the upgrade has a bug in it, and it crashes every time you run it?

You'll likely be prompted to download the file to the directory where the current program sits. Instead, install the upgraded program to a new subdirectory (call it TEMP or a similar name) rather than to the subdirectory used by the version of the program you already have.

If its taking a long time to download the software, consider logging on at a less busy time. Immediately after an upgrade is announced is usually the worst time to try obtaining a copy, especially with popular software such as Web browsers. Another option is to order the installation CD-ROM online.

After you have installed the software, register it right away and pay for it if you are required to before you have a chance to forget. Although some programs come with "nag" buttons ("This is your 480th day of a free 30-day trial"), others will simply quit working.

Let's look at a quick example. Quicken, the popular personal finance software from Intuit, regularly adds new features, and free upgrades are available to registered users. Head to the Quicken update site (<http://www.intuit.com/support/updates>) and choose the product you want to update. Here, you'll find details on cost (free updates are always available automatically online), update features, download time, and more.

#### What To Watch Out For.

Although the Internet makes it easy to obtain software upgrades, things can go wrong. Here are several trouble spots to avoid when downloading programs.

**Viruses.** You've probably heard it before, but it's worth repeating: never, ever download something from the Internet without first checking it for a computer virus. These man-made pests can make copies of themselves over and over again, gobbling up all your memory and causing your system to crash. While reputable software companies ensure their upgrades are virus-free, it can't hurt to check them on your end, especially if you're downloading a file from a third party. You can't get a virus from the text of an E-mail message, but you can pick it up if a file comes through as an attachment to an E-mail message.

There are plenty of great antivirus programs on the market, such as VirusScan from Network Associates and Norton AntiVirus by Symantec. You can find great virus information at these Web sites, as well as at Antivirus Online, an online publication from IBM (<http://www.av.ibm.com/current/FrontPage>); NCSA Virus Lab (<http://www.ncsa.com/virus>); and Dr Solomon's computer virus information site (<http://www.drsolomon.com>).

**Additional upgrades.** Software companies are constantly improving their offerings, and it's likely that you'll want to upgrade over and over again during the course of a few months or a year. When you buy new software, be sure to find out which upgrades (if any) will be available to you on the 'Net and how you will be notified. In addition, find out how upgrades to the rest of your system (are you upgrading from a Windows 95 version to a Windows 98 version?) will be taken care of. If you're going to upgrade your operating system, you'll want to know how much it will cost you to upgrade the rest of your software.

**Cost.** Watch out for hidden costs when you upgrade your software. This applies to both software you obtain from the Internet and software you get elsewhere. If you need to learn new features or train others to use the software, it may not make sense to upgrade each time a new version is released. In addition, you may find a particular upgrade is free at one site but costs you elsewhere, so look around for the best deal.

**Encryption.** Different Web browsers have different encryption capabilities. While we won't go into the security details of 40-bit encryption versus 128-bit encryption, suffice it to say many browsers are not very secure, but companies are beginning to require more secure browsers to visit their Web sites. If your browser doesn't let you onto a Web site to obtain software upgrades, your browser's encryption may be the culprit.

**Technical support.** If you download upgrades via the 'Net, first determine which types of technical support will be available. When you buy boxed upgrades, you'll often receive detailed technical manuals; if you download the software, you may not receive the same material, especially if the downloaded programs are free. Find out what technical support is offered for people obtaining upgrades from Web sites. This is another motivation for registering your software; some companies won't provide tech support until you have done so.

**Look before leaping.** You will find the Internet a wonderfully helpful community of individuals, so before you upgrade your system, talk to those who are in the know. Check out computer newsgroups such as comp.os.ms.windows.win95.setup, Internet mailing lists such as the Great Lakes Windows NT Users Group, and message boards on various software company Web sites.

**Compatibility.** While this situation is rare, you may find that an upgrade improves the program but hurts the performance of other software on your PC. Go online to read any information you can find about known incompatibilities regarding that particular software.

By exploring your online software upgrade options, you can get the latest versions of software easily—and all while keep those snowdrifts off your feet.

by Heidi V. Anderson

### Upgrade Sources On The Web

To get more information about software upgrades, check out these handy sites on the World Wide Web.

#### BugNet

What if you find a bug in that cool software, and you want to find out how to fix it? Or maybe you just want to know what to watch out for? BugNet has the answers. BugNet tracks PC bugs and fixes, and you can use this site to report glitches, learn about incompatibilities, and, most importantly, acquire upgrades that take care of those nasty headaches caused by computer bugs. The low-cost subscription may well be worth the money.

<http://www.bugnet.com>

#### Download.Com

You're probably familiar with this site and its cousins Shareware.com and Free ware.com, but if you aren't, you'll thank yourself for visiting. Here, you'll be able to download the latest versions of popular and not-so-mainstream software packages, and you can try out much of the offerings. The weekly newsletter Download Dispatch will let you know what's new at the site.

<http://download.com>

#### Frank Condron's World O'Windows

If you need to update a device driver, you need to visit Frank Condron's World O'Windows Web site first. This up-to-date site is the place to be for information about drivers, and the Updates section is packed with facts on companies that have updated their drivers. Pick a company name, and you'll find a list of products and its latest version numbers, categorized by operating system.

<http://www.conitech.com/windows/index.asp>

#### Ray's Windows 95 Upgrades Page

This site lives up to its claim of being a wealth of resources for the Windows 95 user. You'll find dozens of links to software upgrades, updates, and patches. Especially helpful portions are the bulletin section at the top of the page, which

alerts you to news stories related to upgrades. Then, scroll down to the links section for a directory of software upgrade categories, such as “free updates from Microsoft” and “Corel and WordPerfect support and updates.”

<http://www2.gc.net/~rwclements/upgrades.html>

#### The PC Zone

There are plenty of computer stores on the Web, but one that deserves mention for its availability of upgrades of software, hardware, and computer memory is The Zone’s Internet SuperStores. The PC Zone (there’s also a Mac Zone) lets you browse through categories such as education, operating systems, and word processing. Although you won’t find a separate section for up-grades, you can determine whether a software upgrade is available and compare versions of competing products.

<http://www.zones.com/upgrades.htm>