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TUTORIAL

Virus Season

Coping with computer viruses

You've heard the stories: malicious computer viruses are constantly worming their way off the Internet and into your home, infecting your unsuspecting computer. Some stories are fact, some fiction. But while the threat of viruses is real, if you educate yourself about them and devise a personal virus strategy, chances are good that your computer will remain healthy and you'll remain happy.

Be Fruitful and Multiply

A computer virus is simply a small computer program designed to copy itself—over and over and over. This form of self-replicating program is typically referred to as an “infection,” because, like real biological viruses, such programs need the aid of “hosts” to spread. Your hard drive and floppy disks are what act as hosts for the infecting viruses, which alter, damage, or delete your files—and may even damage the computer's system itself. Unfortunately, one other maddening characteristic of viruses is that they typically try to hide themselves so they can't be discovered and destroyed.

Running into Trouble

Viruses spread by two kinds of contact—by downloading infected files or programs from a network or by inserting infected disks into your computer. Once you *run* an infected program, the virus can spread rapidly, especially on networks. The largest network, the Internet, is therefore a fertile breeding ground for viruses.

Not Feeling Well?

It may be hard to tell whether you've been infected by a virus, because some virus-like symptoms are caused by common software bugs or system conflicts. That said, there are some



symptoms which often indicate the presence of a virus:

- Your computer slows down.
- Output to the screen or printer is jumbled, garbled, or lost.
- Your computer is not responsive.
- There is a change in program or memory size.

Of course there are even more obvious signs: odd messages, strange music, disappearing files, or your entire system crashing—permanently.

The Road to Recovery

If you think you have a virus, don't panic; simply turn off your computer and follow these procedures:

- Insert a boot disk (a virus-free, write-protected floppy with system files—such as `command.com`, `autoexec.bat`, and `config.sys`—that you can start, or boot, your system from) and restart your computer. You can make this boot disk yourself, but you might want to use your original system disk for booting. (Note: Mac users can generally bypass this step—due to the differing Mac architecture, viruses rarely affect startup procedures on Macs.)
- Install and use an anti-virus (AV) program (using two programs is

recommended for optimum safety). First scan your system with the scanning component of your AV software; then use the software to "clean" any infected files (PC users should change file extensions from virus.exe to virus.tmp, or something non-executable, while cleaning). You could, instead, delete the file and later replace it using the original software. If cleaning and deleting files are ineffective, as a last resort you can try a low-level format of your hard drive. This step, however, will reformat your hard drive and you'll lose anything you haven't backed up.

- It's best to scan all floppies with your AV software, even though this is time-consuming.
- After everything is clean, test and rescan the system to ensure everything is safe.

Preventive Medicine

There are only two ways to *guarantee* that you'll never get a virus: (1) never buy a computer, or (2) never turn on your computer. OK...so that's not realistic. But while there are no guarantees, the best virus protection is prevention. Just follow these simple guidelines:

- 1 Back up your data regularly. (While this isn't exactly "preventive," you'll be very glad you did it.) Thankfully, tape-backup units have come down greatly in price.
- 2 Use regularly updated anti-virus software. Since new viruses appear all the time, it's important to use AV software that's updated at least every four to eight weeks. The many good anti-virus programs available are mostly commercial, but many are shareware as well.
- 3 Employ the various scanning components of your AV software: non-virus-specific checksummers search for system changes; virus scanners warn of specific viruses; TSR scanners monitor all actions in the background.

PC Recommendations

Some of the most effective anti-virus products aren't widely known. Among the best is Dr. Solomon's Anti-Virus Toolkit. Although it's a commercial product, you can download an evaluation copy of Dr. Solomon's thorough scanner, FindVirus. Another good AV product is F-PROT. Go to *blink Online* to download evaluation versions of both programs. They're easy to install, and you really don't need to set anything up to begin. Both include virus encyclopedias, and both scan for thousands of viruses.

Mac Recommendations

While there are more than 12,000 PC viruses, there are under 100 Mac viruses (different architecture—long story). Consequently, there aren't many Mac AV products. However, one has long been king: Disinfectant. Disinfectant catches all standard Mac viruses, but not necessarily the new "macro" viruses. So, you may want to consider a supplemental product. McAfee's good AV product, VirusScan, does catch macro viruses. Disinfectant and an evaluation version of VirusScan can be downloaded from the *blink Online* site. These AV programs are easy to install, require virtually no setup, and allow you to start scanning for viruses immediately. Remember, although it's always virus season on the Net, it's easy to practice virus-safe computing. Follow the simple tips offered here, and visit *blink Online* at <http://www.earthlink.net/blink/tutorial.html>, where we've assembled even more anti-virus resources and you can download many of the best anti-virus programs.

—Scott Holstad



Name That Virus

Famous Viruses

Some viruses have attained particular notoriety. One, called the Stoned virus, when activated, displays a message that your computer is now "stoned." Another biggie is Michelangelo, so named because it was activated on the artist's birthday, March 6. This virus overwrites your hard drive! Currently, the most common viruses are simple "macro" viruses—like Concept and Wazzu—often infecting Word or Excel files. While macro viruses spread rapidly, thankfully they seldom do substantial damage and can be cleaned easily.

Virus Hoaxes

Numerous well-known virus hoaxes have made the rounds. One legend, the Good Times virus, has been around for years. Supposedly, this virus is circulating via an email with "Good Times" in the subject line—and just *reading* this message will erase your hard drive. You're then told to forward a warning to friends. Good Times has inspired countless copycats, such as the Deeyenda and Penpal Greetings hoaxes.

Another famous virus, Irina, was a publicity stunt. A Penguin Books employee, pretending to be from a university, sent out an email warning about the Irina virus, which, when read, would wipe out a computer. Turned out the message really referred to a planned interactive novel!

Know what to do if you hear about "email viruses" like these? Relax! See, viruses are programs—they need to be *run*. Email, on the other hand, is just ASCII text. Email text is not a program and cannot be infected. Confusion arises because viruses *can* be transferred via email in attachments, so be safe and scan all attachments with anti-virus software.