

# Tips N' Techniques

## Introduction to viruses, worms, and Trojan Horses

Viruses, worms, and Trojan Horses are malicious programs that can cause damage to your computer and information on your computer, slow down the Internet, and use your computer to spread themselves to your friends, family, co-workers, and the rest of the Web. The good news is that with an ounce of prevention and some good common sense you are less likely to fall victim to these threats. Think of it as locking your front door to protect your entire family.

Read on for definitions, ways to find out if you've been victimized, and solutions you can use to help make your computer safer.

### What is a virus?

A virus is a piece of computer code that attaches itself to a program or file so it can spread from computer to computer, infecting as it travels. Viruses can damage your software, your hardware, and your files.

Just as human viruses range in severity from Ebola to the 24-hour Flu, computer viruses range from the mildly annoying to the downright destructive. The good news is that a true virus does not spread without human action to move it along, such as sharing a file or sending an e-mail.

### What is a worm?

A worm, like a virus, is designed to copy itself from one computer to another, but it does so automatically by taking control of features on the computer that can transport files or information. Once you have a worm in your system it can travel alone. A great danger of worms is their ability to replicate in great volume. For example, a worm could send out copies of itself to everyone listed in your e-mail address book, and their computers would then do the same, causing a domino effect of heavy network traffic that would slow down business networks and the Internet as a whole. When new worms are unleashed, they spread very quickly, clogging networks and possibly making you wait twice as long for you (and everyone else) to view Web pages on the Internet. Because worms don't need to travel via a "host" program or file, they can also tunnel into your system and allow somebody else to take control of your computer remotely. Recent examples of worms included the Sasser worm and the Blaster worm.

### What is a Trojan Horse?

Just as the mythological Trojan Horse appeared to be a gift, but turned out to contain Greek soldiers who overtook the city of Troy, today's Trojan Horses are computer programs that appear to be useful software, but instead they compromise your security and cause a lot of damage. A recent Trojan Horse came in the form of an e-mail that included attachments claiming to be Microsoft security updates, but turned out to be viruses that attempted to disable antivirus and firewall software. Trojan Horses spread when people are lured into opening a program because they think it comes from a legitimate source. To better protect users, Microsoft often sends out security bulletins via e-mail, but they will never contain attachments. Trojan Horses can also be included in software that you download for free. Never download software from a source that you don't trust. Always download Microsoft updates and patches from Microsoft Windows Update or Microsoft Office Update.

### How do worms and other viruses spread?

Virtually all viruses and many worms cannot spread unless you open or run an infected program.

Many of the most dangerous viruses were primarily spread through e-mail attachments—the files that are sent along with an e-mail message. You can usually tell if your e-mail includes an attachment because you'll see a paperclip icon that represents the attachment and includes its name. Photos, letters written in Microsoft Word, and even Excel spreadsheets are just some of the file types you might receive through e-mail each day. The virus is launched when you open the file attachment (usually by double-clicking the attachment icon).

**Tip:** Never open anything that is attached to an e-mail unless you were expecting the attachment **and** you know the exact contents of that file.

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If you receive an e-mail with an attachment from someone you don't know you should delete it immediately. Unfortunately, you're no longer safe opening attachments from people you do know. Viruses and worms have the ability to steal the information out of e-mail programs and send themselves to everyone listed in your address book. So, if you get an e-mail from someone with a message you don't understand or a file you weren't expecting, always contact the person and confirm the contents of the attachment before you open it.

Other viruses can spread through programs you download from the Internet or from virus-ridden computer disks that you borrow from friends or even buy in a store. These are less common ways to contract a virus. Most people get viruses from opening and running unknown e-mail attachments.

## **How can I tell if I have a worm or other virus?**

When you open and run an infected program, you might not know you've contracted a virus. Your computer may slow down, stop responding, or crash and restart every few minutes. Sometimes a virus will attack the files you need to start up a computer. In this case, you might press the power button and find yourself staring at a blank screen.

All of these symptoms are common signs that your computer has a virus—although they could also be caused by hardware or software problems that have nothing to do with having a virus.

Beware of messages warning you that you sent e-mail that contained a virus. This may mean that the virus has listed your e-mail address as the sender of a tainted e-mail. This does not necessarily mean you have a virus. Some viruses have the ability to forge e-mail addresses. You might hear this referred to as "spoofing."

Unless you have up-to-date antivirus software installed on your computer, there is no sure way to know if you have a virus or not.

Source: <http://www.microsoft.com/security/articles/virus101.asp>

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