



An Introduction to Computer Viruses

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Introduction

This document covers the basics on computer viruses. Please take some time to peruse the information to obtain an overall understanding of the concern and how to safeguard yourself from the dangers of viruses.

What is a Virus?

A **computer virus** is one of thousands of programs that can invade computer systems (both IBM PC and Macintosh) and perform a variety of functions ranging from annoying (e.g., popping up messages as a joke) to dangerous (e.g., deleting files or destroying your hard disk). **Trojan horses** or **worms** are specific types of clandestine programs (loosely categorized as viruses) and can be just as dangerous. For simplicity's sake, future mention of viruses in this document will refer to viruses, Trojan horses, and worms taken as a whole.

How Do Viruses Spread?

Computer viruses are programs that must be triggered or somehow executed before they can infect your computer system and spread to others. Examples include opening a document infected with a "macro virus," booting with a diskette infected with a "boot sector" virus, or double-clicking on an infected program file. Viruses can then be spread by sharing infected files on a diskette, network drive, or other media, by exchanging infected files over the Internet via e-mail attachments, or by downloading questionable files from the Internet.

How Can You Protect Yourself?

With dangerous viruses on the network, what can computer users do to protect their systems? Here are just a few hints:

- Be sure to install an anti-virus software program (see the next section) to guard against virus attacks. Also, be sure you **turn on** the scanning features. It can't protect you if it's not enabled.
- Practice caution when working with files from unknown or questionable sources.
- Do not open e-mail attachments if you do not recognize the sender (though you may also receive viruses from people you know). Scan the attachments with anti-virus software before opening them.
- Download files only from reputable Internet sites, and be wary when exchanging diskettes or other media with friends.
- Scan your hard drive for viruses monthly.

Even with these precautions, new viruses may find ways to enter your computer system.

Getting Anti-virus Software

Anti-virus software are programs that are installed onto your computer and can scan and remove known viruses which you may have contracted. The software can also be set to automatically scan diskettes when inserted into the disk drive, scan files when downloaded from the Internet, or scan e-mail when received.

University of Hawai'i faculty, staff, and students are eligible for a copy of one of the following ITS-supported anti-virus software programs free of charge:

McAfee VirusScan for Windows
(www.hawaii.edu/downloads/mcafee/virusscan.html), or
Virex for Macintosh
(www.hawaii.edu/downloads/mcafee/virex.html)

Visit www.hawaii.edu/sitelic/antivirus for download information.

The above site-licensed software are also on the ITS CD-ROM which is available at the ITS Help Desk in Keller Hall 105 on the Mānoa campus.

**Note: Be sure to have only one anti-virus program running on your system.
Multiple programs may cause conflicts and system instability.**

Keeping it Current

Even with active monitoring of computer systems, anti-virus software can only protect against viruses that it knows about. For this reason, update files (generally called Definition Files) for anti-virus software are needed every time there is a new virus release. On the Windows platform, this means an update roughly every week; the Macintosh has fewer new viruses to worry about so updates are usually done monthly. The software that ITS distributes has an "Auto Update" feature to automatically connect to a Web site and download the latest Definition Files. Refer to the documentation to turn this feature on

and receive the maximum protection against viruses on your computer. **Be sure to keep your Definition Files current!** See links at the end of this document to download the latest Definition Files.

I May Have a Virus. Now What?

If your computer becomes infected with a virus, don't panic! For most viruses, you can simply use your anti-virus program to scan and remove the virus. If your Definition Files are up-to-date, the program should be able to clean off all but the most recent viruses. In the case of rather nasty viruses, you may have some damaged files that cannot be fixed. Restore these from your backups. (*You do make backups, don't you?*) Call the ITS Help Desk at 956-8883 if you need further assistance.

More Information

If you would like to be apprised of the latest major virus outbreaks by e-mail, join the UH virus alert listserv by sending e-mail to listproc@hawaii.edu and including in the body of the message:

SUBSCRIBE UHVIRUS-ALERT *Firstname Lastname*

with your first name and last name in the appropriate location.

For more information about computer viruses, here are additional links to check out:

For	URL
UH ITS Site License Anti-Virus Page (with links to downloads and documentation)	www.hawaii.edu/sitelic/antivirus
Installation Document for VirusScan for Windows	www.hawaii.edu/itsdocs/index.html#virusscan
Installation Document for Virex for Macintosh	www.hawaii.edu/itsdocs/index.html#virex
Virus Alerts for Windows	www.hawaii.edu/sitelic/antivirus/pcalerts.html
UH Technology News (includes Virus Alerts)	www.hawaii.edu/technews
Virus Alerts from McAfee (makers of VirusScan and Virex)	www.mcafee2b.com/avert/virus-alerts/default.asp
McAfee's Virus Information Library	www.mcafee2b.com/avert/virus-information-library/default.asp
Latest Definition Files (DAT) to download	www.mcafee2b.com/naicommon/download/dats/find.asp
Symantec Virus Encyclopedia	www.symantec.com/avcenter/vinfodb.html

For additional assistance, please phone the ITS Help Desk at (808) 956-8883,
send e-mail to help@hawaii.edu, or fax (808) 956-2108.

Or see the ITS Helpdesk home page at www.hawaii.edu/help
The ITS Help Desk is located in Keller 105 on the UH Mānoa Campus.

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