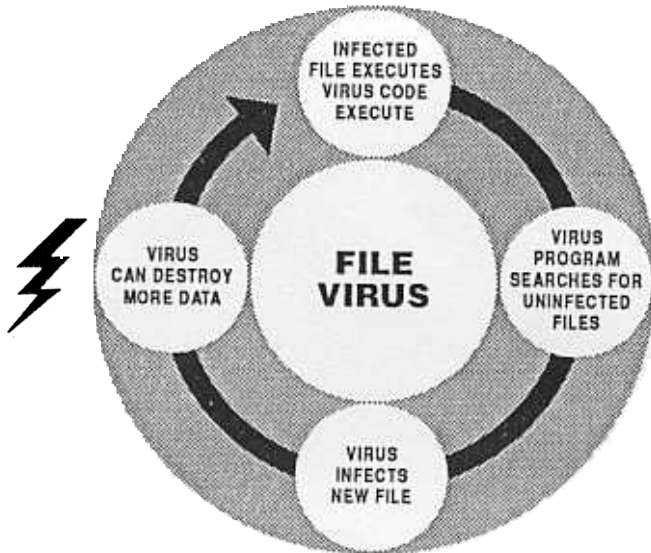
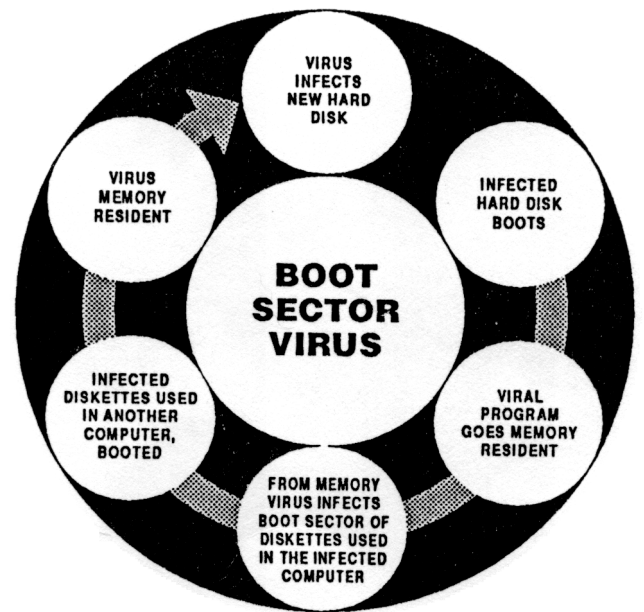


Boot Sector Viruses

Boot sector viruses are by far the most common. They insert themselves into the boot sectors of hard or floppy disks. A boot sector is a small section of a disk that stores a short program for using the disk. The program executes when the disk starts, or "boots". When the infected disk boots, boot sector viruses load into Random Access Memory (RAM). From memory they infect other disks used in the computer system.

Spread only by disk-to-computer-to-disk connections, boot sector viruses cannot be spread by electronic file transfer. There is usually a time lag between infection and attack. This lag gives them time to replicate and spread. Boot sector viruses can spread very quickly.



File Viruses

Of the three types of computer viruses, file viruses are the most like biological viruses. They are truly self-replicating information structures. In biological viruses the information is genetic, in file viruses the information is electronic. Spreading from file to file on a disk, file viruses are like biological viruses spreading from cell to cell in a body.

File viruses can be spread by electronic file transfer and floppy disks. If an infected file is transferred from an infected computer to a clean computer then the clean computer's files and disks become infected.

There are many, many different file viruses, but they are really not very common. File viruses are programs that attach themselves to other programs. In DOS they usually target .COM and .EXE files, especially COMMAND.COM, an integral part of DOS systems.

When these executable files execute, i.e., when the infected program runs, the virus program executes too. The virus then goes looking for new files to infect. It spreads from file to file on a disk. There is usually an incubation period that lets them spread. Then comes a sudden attack or a periodic, pain-in-the-neck bug.

Trojan Horse Viruses

Trojans are the crudest viruses and often the most destructive. Typically they are disguised programs, uploaded to phone-in computer bulletin board systems (BBSes) by vandals. Unsuspecting victims download them. Their documentation promises they will do something wonderful for you.

Once past your system's gates, Trojan horse viruses attack. Like the Trojan horse of Iliad fame, from within an attractive exterior springs a destructive force. When you run the program it does something nasty, like overwriting your hard disk or scrambling files.

They may not attack right away. They can wait for a date to come up on your computer's clock, or count the number of times they run until they reach a target number. This way they do more harm. Waiting gives more time for more victims to download the Trojan, and for victims to pass the time bomb on to other BBSes and unlucky friends.

TROJAN HORSE

