



2, 2009 by Detective Irving Smith where it was submitted for storage in the laboratory's evidence control facility.

Based on the affiant's knowledge, training, and experience, the affiant knows that computer files or remnants of such files can be recovered months or even years after they have been downloaded onto a hard drive, deleted or viewed via the Internet. Electronic files downloaded to a hard drive can be stored for years at little or no cost. Even when such files have been deleted, they can be recovered months or years later using readily-available forensics tools. When a person "deletes" a file on a home computer, the data contained in the file does not actually disappear; rather, that data remains on the hard drive until it is overwritten by new data. Therefore, deleted files, or remnants of deleted files, may reside in free space or slack space - that is, in space on the hard drive that is not allocated to an active file or that is unused after a file has been allocated to a set block of storage space - for long periods of time before they are overwritten. In addition, a computer's operating system may also keep a record of deleted data in a "swap" or "recovery" file. Similarly, files that have been viewed via the Internet are automatically downloaded into a temporary Internet directory or "cache." The browser typically maintains a fixed amount of hard drive space devoted to these files, and the files are only overwritten as they are replaced with more recently viewed Internet pages. Thus, the ability to retrieve residue of an electronic file from a hard drive depends less on when the file was downloaded or viewed than on a particular user's operating system, storage capacity, and computer habits.

The search of a computer system is an exacting scientific procedure which is designed to protect the integrity of the evidence and to recover even hidden, erased, compressed, password protected or encrypted files. Searches and seizures of evidence from computer systems commonly require the seizure of all computer items to be processed by a qualified computer expert in a laboratory or other controlled environment. The high volume of the contents and intentional concealment of criminal activity through random ordering and deceptive file names requires search authorities to examine all the stored data. This sorting process may take weeks or months depending on the volume of the data stored.

A forensic examination of the computer is needed to check for other file variations, which may be erased, hidden, encrypted, compressed, or password protected.