

File Carving - Valuable Remnants Recovered!

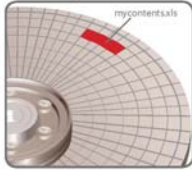
August 20th, 2008

Carving files, which can be performed manually or through an automated process, permits the recovery of a portion of a corrupted or deleted file. During a computer investigation, examiners may encounter deleted files that cannot be fully recovered. However, enough of the file may still be intact and worth restoring.

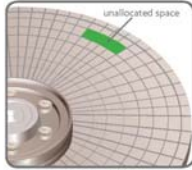
How are Deleted Files and Data Recovered?

Computers Don't Immediately Remove Data that is Deleted

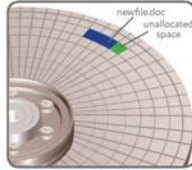
Original Data



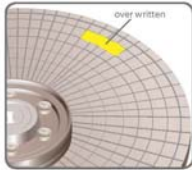
Deleted Data



Partially Overwritten Data



Data Wiped Clean or Shredded



The original data is still present, but marked as unallocated space.

Over time, some or all of the data can be overwritten. The remaining data can still be "carved" and reviewed.

The data can be wiped clean or shredded using privacy software.

What is unallocated space?
Unallocated Space is available disk space that is not allocated to any volume. The type of volume that you can create on unallocated space depends on the disk type. On basic disks, you can use unallocated space to create primary or extended partitions. On dynamic disks, you can use unallocated space to create dynamic volumes.

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For example, if a deleted Microsoft Word document called "sales report.doc" contains the keywords "Mr. Smith, Bonus," but the file cannot be viewed, then it is most likely damaged. Even though not enough of the file is intact to be opened, it may still be possible to carve the useful content. Using specialized software, such as Encase, FTK, WinHex, ProDiscover and several others, it may be possible to locate, restore and even repair damaged or overwritten files.