

Scrubbing Your Hard Drive

How to Protect Yourself When Donating Your Computer or
Disposing of Hardware

Presentation to UCHUG - 11/07/07

G. Skalka

What is the Problem?

- Computer technology is constantly changing, driving users to upgrade
- New software and operating systems like Vista demand more advanced hardware
- Most hardware is abandoned because its usefulness decreases, not because it fails
- Most users would like to see their old hardware put to good use, rather than be discarded

Disposing of Old Hardware

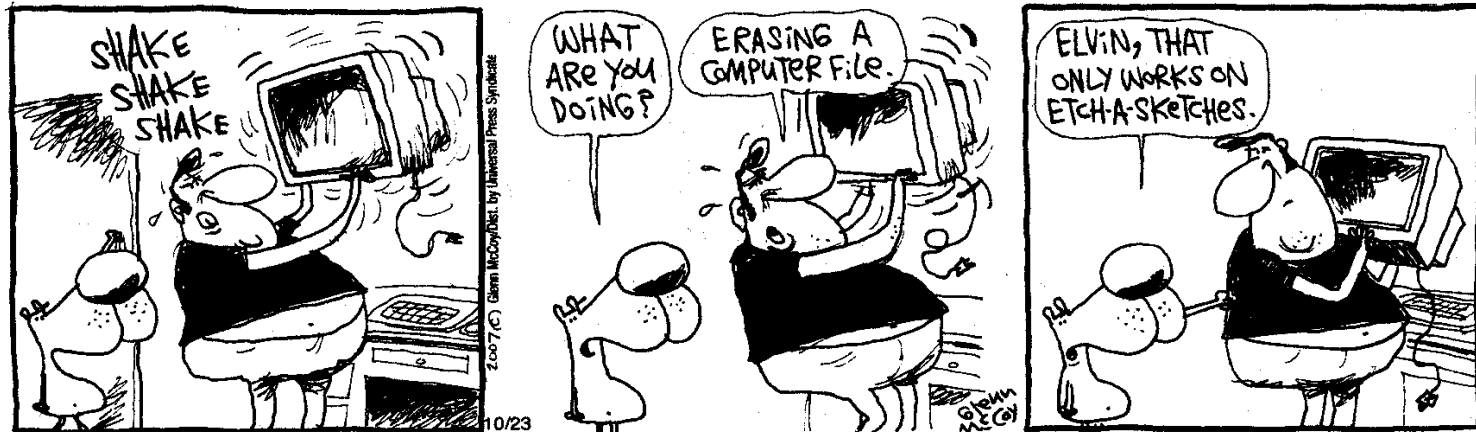
- Donate to a charity
- Sell systems or components
- Give away to friends or relatives
- Take to a recycling center or authorized drop off site
- Fill up that spare closet

If Your Hardware Has Memory

- Computers and loose hard drives can contain sensitive personal information
 - Tax returns
 - Financial data or documents
 - Personal correspondence
 - Private emails
 - Other personal information that could facilitate identity theft (resumes, bank statements)
 - Personal photos
- USB thumb drives can also contain private data
- Memory cards can contain personal photos

I'll Just Delete My Sensitive Files Before Donating, Right?

Duplex by Glenn McCoy



Wrong - You must understand how the process works

Is My Data Really Deleted?

- Items in the recycle bin are still there on the hard drive
- Even when the recycle bin has been emptied, the data can often be recovered
- Formatting the drive still leaves most of the data intact, to be recovered by specialized software
- Data can often be recovered from damaged hard drives

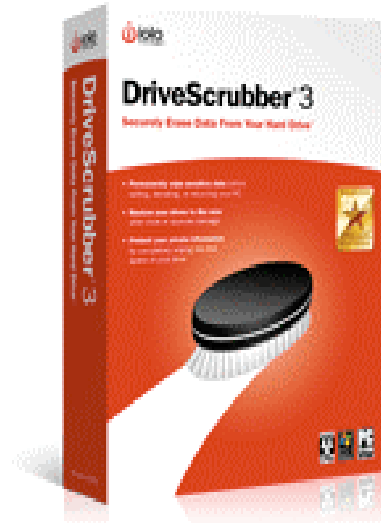
Solutions

- Data Encryption
 - Protects your data, whether in your hands or not
 - Not totally secure - can be broken
- Physical destruction of media
 - Assures data destruction
 - May be difficult; wastes good hardware
- Software-based secure deletion
 - Inexpensive software overwrites data multiple times to insure it cannot be recovered

Disk-Wiping Software

- Can be run (booted) from CD to wipe files, folders, partitions or entire drives
- Can be set for various security levels (often meets US DoD security standards)
- Can often erase USB flash drives and camera memory media, in addition to hard drives
- Relatively inexpensive (\$20 to \$30)

Typical Software

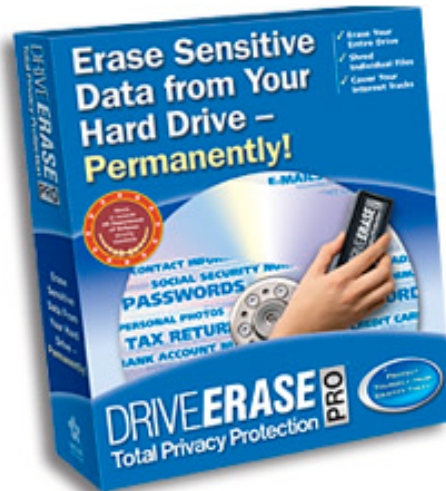


iolo technologies

DriveScrubber[®]3

Securely Erase Data From Your Hard Drive

Wipe your data before selling, donating, or recycling your PC. Restore your drives to like new after virus or spyware damage.



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Erase Sensitive Data from Your
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iolo Drive Scrubber 3

The screenshot shows the iolo DriveScrubber 3 application window. The title bar reads "iolo DriveScrubber 3". The interface has a red header bar with "Home" on the left and "Help" on the right. Below the header, there is a main content area on the left and a sidebar on the right.

DriveScrubber®
DriveScrubber permanently erases data from a hard drive or floppy disk. You can completely wipe all contents of a drive, or you can erase the remnants of deleted files.

I want to...

- Wipe all contents of a drive**
Erase all data from a drive. Every sector is overwritten, leaving a "like new" drive with no data.
- Wipe free space of a drive**
Erase the remnants of deleted files from a drive. Only the free disk space is cleaned; the existing files and operating system are left intact.

Learn more

Device List

Hard drives
Local Disk (C:) 9.99 GB Wipe free space

News

Updates

- Up-to-date**
You are running the latest version of Search and Recover.
[Check for updates](#)
[Version Info](#) [Settings](#)

Default Action

Nova Development Drive Erase Pro

**Erase Sensitive Data from Your
Hard Drive in 3 Easy Steps**

1. INSERT

the Boot CD
into your
CD-ROM drive.



2. RESTART

your computer.



3. DELETE

your data with
confidence.



Acknowledgements

- Article: Data Data Everywhere, O & O Software GmbH
- www.iolo.com: Drive Scrubber 3
- www.novadevelopment.com: Drive erase Pro