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Thread: [\[Tutorial\] How To Wipe All Traces of Deleted Files in Windows \[Tutorial\]](#)

jeremykonst - October 31, 2014, 7:22 am

Lets dive in.

What is this wiping free space process?

Wiping free space is a removal process for traces of data on the hard disk of the previously deleted files, meaning the wiped space can no longer be recovered by recovery software since your hard disk will be perfectly clean. This is an excellent selection, especially after reformatting your hard disk and or have previously upgraded your operating system, since these processes write new files to your hard drive. If you give your hard disk to someone or you are going to trash your hard drive, this is an excellent process - nonetheless, have you had important data typed on your computer? Perhaps deleted? Wipe the free space to ensure its been eradicated. Note however that SSD (Solid State Drives) do not require a wiping of free space since instead of a magnetic coating on top of platters, the data is stored on interconnected flash memory chips that retain the data even when there's no power present. Therefore, do not run this on a SSD.

So, deleting files (permanently too) doesn't mean I am actually deleting files in Windows?

What happens is that when you delete a file windows only deletes the registry entry that points to that particular file. It partially removes it from the hard drive. However, when you place any file on that memory location the previous orphan data gets overwritten.

To securely delete data, wiping free space is needed as there are many tools available that can read the existing data of hard drive (that is not properly wiped) and thereby give away important information like credit card numbers. Again there is depth of wiping, more the security measures taken, the more the time it will consume for the wiping purpose. In the U.S. Government and the NSA (national security agency), the basic wiping technique used is the Gutmann method formula created by Peter Gutmann:

For Advanced Users, this is a semi-impressive method for wiping free space. For regular users, it is some scary stuff that will fly over your head. The method includes the following: An overwrite session consists of a lead-in of four random write patterns, followed by patterns 5 to 31 (see rows of table below), executed in a random order, and a lead-out of four more random patterns.

Each of patterns 5 to 31 was designed with a specific magnetic media encoding scheme in mind, which each pattern targets. The drive is written to for all the passes even though the table below only shows the bit patterns for the passes that are specifically targeted at each encoding scheme. The end result should obscure any data on the drive so that only the most advanced physical scanning (e.g., using a magnetic force microscope) of the drive is likely to be able to recover any data.

Lets begin wiping our free space, and after being convinced using the Gutmann method for wiping my free space via 35 passes, it is worth every paranoid second somebody can get a hold of my information. Enjoy the tutorial.[/center]

Download and Install CCleaner by clicking anywhere along this sentence. If you already have it, skip a few steps. You're ahead of the game. ?

Now after installing it by tapping next a few times - ensure you tapped the option to have it create a Desktop icon.

Next, open CCleaner and navigate directly in the left pane side to Drive Wiper under Options.

Ensure you select Wipe Free Space Only, I cannot stress this enough.

Depending on your level of computer consciousness and security, select a wiping method. I chose the Gutmann method, being the 35 passes I have explained prior in the paragraphs above.

Select the drive's you would like to wipe: I chose based off how often I used the drives. If I have deleted more than several gigabytes of data, I will select those disks.

Click the Wipe button afterwards, and let the wiping initiate. The computer will have to run for at least about 20 hours depending on how often and how many files you have deleted in the past. It took my laptop 18 hours after I have reformatted it from 485GB, down to 77GB.

It was worth it. I let it run overnight, and when I was at school. Everything was a bit laggy after a wiping, so I restarted my PC - it appears to be a bit "slow" in the beginning before restarting since we are clearing file impartiality within my hard drive for the past year and a half. Restart it, and you will be fine. Everything is running crisp and so very smooth <3. The hard drive is basically brand new.

I hope you have learned something today, and enjoy your brand new hard drive.

Aura - October 31, 2014, 7:33 am

Closed since this post is leached and this isn't your tutorial. Copy/pasted tutorials aren't welcome here, and so does Omni says. If you can prove that you are indeed the author of this tutorial, send me a PM and I'll reopen it.