

# How come Explorer reports higher disk space used on my volume than my third party disk space tool?

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When you view the properties of a volume in Explorer, it reports (among other things) disk space used and disk space remaining. You find that you're running low on disk space, so you want to look for big files that could be archived and deleted, and you run a disk space tool, but that tool reports disk usage less than what Explorer reports. Where is this secret disk space usage coming from?

Explorer obtains information about used and free disk space by calling `GetDiskFreeSpaceEx`, so the information comes straight from the file system.

The third party tool is probably calculating disk space used by walking the entire disk and adding up file sizes. And what's probably happening is that the secret disk space usage is coming from directories that the third party tool cannot access. Since it cannot access them, it just skips over them and assumes that the directories have no files.

In particular, it probably skips over the `System Volume Information` directory. System Restore snapshots are kept there, and they can get big.

Now the tricky part: How to clean up System Restore points?

Your first inclination might be to go to the Control Panel and search for *System Restore*, and it will take you to the *System Protection* control panel, where you can configure System Restore. But the only button available there is *Delete all restore points for this drive*. What if you want to clean up all but the most recent restore point?

To delete all but the most recent restore point, you have to go to a *completely different place*: The *Disk Cleanup* utility.

Anyway, from the *Disk Cleanup* utility, click *Clean up system files*, and then go to the *More Options* tab. Under the *System Restore and Shadow Copies* section, click *Clean up* to clean up all but the most recent restore point.

I don't know why there isn't a link from one to the other.

**Bonus chatter:** Other sources of “mystery disk space usage” are alternate data streams and general disk metadata, like the directories themselves!

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