



VP Tech Club 2023

PC Club Backup & Recovery

Liz Ackerman

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Backup & Recovery

- Critically important for data management
- Protects against:
 - human errors
 - hardware failure
 - virus attacks
 - power failure
 - natural disasters
- Can help save time and money if any of the above happens to you

Which type: Local, External, Cloud?

- Which is the best way to backup?
 - Local – on a second hard drive in the PC or a separate partition on the hard drive
 - External – a connected, powered external hard drive
 - May come with backup management software
 - Cloud based
- ALL OF THEM

Why all three?

- Local disaster could wipe out both PC and the external drive
- Hard drives can become corrupted (irreparably)
- Internet may disappear
- May want to consider off site storage for a near to you local storage
 - Neighbour, relative, safety deposit box
- Consider a portable large capacity thumb drive you always carry with you

Three types of backups

- Full
 - everything
- Differential
 - Additions, changes since most recent Full BU
- Incremental
 - Additions, changes since most recent Differential

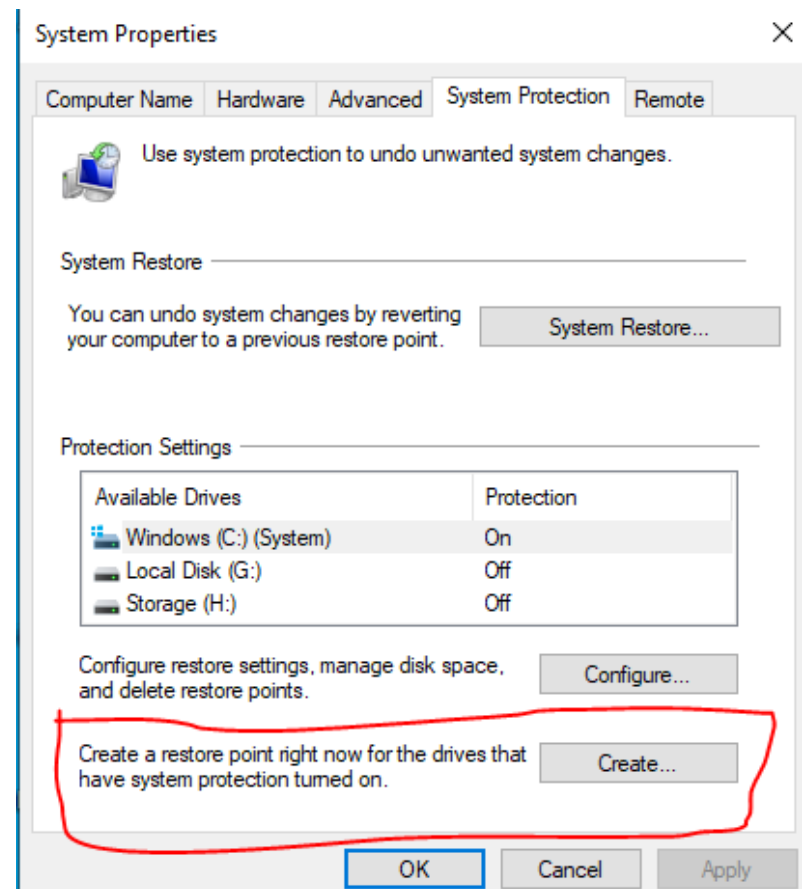
	Full	Differential	Incremental
Storage Space	High	Medium to High	Low
Backup Speed	Slowest	Fast	Fastest
Restoration Speed	Fastest	Fast	Slowest
Media Required for Recovery	Most recent backup only	Most recent full backup & most recent differential backup	Most recent full backup & all incremental backups since full backup
Duplication	Stores a lot of duplicate files	Stores duplicate files	No duplicate files

Do I need to do a system backup?

- Some support for not worrying about operating system
 - If you keep current with operating systems, easy access to replace it
 - Keep records of your license agreement/registration codes (take pictures on your phone)
 - Older no longer available but useful software would be a major concern

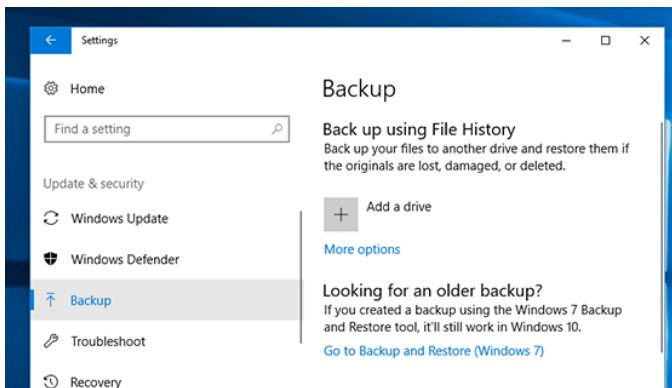
Start With Restore Point(10 & 11)

- Create a restore point
- Press Window logo key
- Type restore point



Basic OS Backups – File History

- Windows 10
 - Back up with File History
 - External drive or network location



- Windows 11
 - File history removed from Settings
 - Control Panel => File history

Windows 10 & Windows 11

System Backup

- Start
 - > Settings
 - > Update & Security
 - > Backup
 - > Add a Drive (location)

System Backup

- Control Panel
 - > Start
 - > Settings
 - > Accounts
 - > Windows backup

Some thoughts...

- How much space required
 - As little as 16GB but generally as big as your internal hard drive
 - 256GB or 512GB
- How long?
 - At 5Mbps, 100GB should take about 48 hours to backup

Why Not Use OneDrive or Create a Backup System Image?

- Both options back up data to some degree
 - Have inherent flaws related to automating backups
 - Creating a system image requires large storage space
 - Cannot create system images regularly, store to disk just for backups of 1-2 GB of files.
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- OneDrive only backs up data present in the OneDrive folder
 - Cloud backups need an internet connection
 - Doesn't back up the data present in other disk locations
 - Why the File History feature exists

Backup/Restore Solutions

- Best Backup Software & Solutions 2023
- https://www.pcmag.com/picks/best-backup-services?test_uuid=02cRJYkCqD0UO6tw1ne6Y2l&test_variant=a

Best Free Backup & Restore Solutions

- <https://www.pcworld.com/article/407569/the-best-free-backup-software-and-services.html>

