Protecting Your Data

SLU Data Science Seminar
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https://github.com/slu-dss/protectData

Backup Types

Bootable Backup ("Clone") – image of your **entire** computer at one point in time

Incremental Backup – copies of most files, often with version history and protection for deleted files

Sync Service "Backup" – services typically retain a version history and limited protection for deleted files

Cloud Backup – copies of most files stored remotely with limited version history and protection for deleted files

Backup Strategy

3-2-1-B Rule

Keep at least **three** copies of your data and automate this process as much as possible.

At least **two** of these copies should be locally stored on **two** different devices.

At least **one** of these copies should be stored offsite.

For users with lots of applications, a **bootable** backup ("clone") can be invaluable.

External Hard Drives

External hard drives for bootable backups should be **at least** as large as your internal drive.

External hard for incremental backups should be **several times** as large as your internal drive.

Use the **fastest** cable type your computer supports (if your computer has USB 3.0 ports, get a USB 3.0 drive – your backups will be much faster!).

Software – Bootable Backups

Windows	macOS
Windows Built-In System Image Tool* (F)	CarbonCopyCloner ($)
Acronis True Image ($)	SuperDuper ($)
StorageCraft ShadowProtect Desktop ($)	

Software – Incremental Backups

Windows	macOS
Windows Built-In Backup Tool* (F)	Apple TimeMachine (F)
Software shipped with most external hard drives (F)	

Sync Services

Windows & macOS	
Dropbox ($F)	Google Drive ($F)
iCloud Drive ($F)	Microsoft OneDrive ($F)

Cloud Backup Services

Windows & macOS	
Backblaze ($)	Carbonite ($)
CrashPlan for Small Business ($)	iDrive ($)

* – Windows tools vary by OS version; (F) free; ($) paid; ($F) free and paid versions available