

# BACKING UP DATA

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## INTRODUCTION

When it comes to backing up data, people can have a tendency to be a little negligent of the possibility that at some point you may lose files due to a hardware failure that locks you out from getting to your files on the hard drive or you may accidentally erase a file and need to recover it. There are a multitude of options when it comes to backing up your data, and choices have to be made.

## ONLINE OR OFFLINE

Data can be backed up to an on-site location (somewhere in your house/campus/office, etc.), or it can be backed up online to a company's servers. Off-site backups are a little safer, but you trade it for speed and security. You're choosing to store files on a company's servers – while there will obviously be a license agreement between you and the company, it's still a decision to be made. Additionally, online backups may often take much longer comparatively.

Whatever strategy you use for backup of your data we advise that you also include a periodic verification that the data is recoverable in the event you need it. This will ensure that the process of backing up and restore is working.

## ONLINE

For online backups, a multitude of services exist, both free and for-pay. Wikipedia hosts a list of online backup services at [http://en.wikipedia.org/wiki/List\\_of\\_online\\_backup\\_services](http://en.wikipedia.org/wiki/List_of_online_backup_services). Many of these services have introductory or reduced-features accounts, offering 1-4GB of storage for free to

encourage users to purchase a full account. Often times 1-4GB of space is all one may need to back up vital documents and files.

If you are a Mosaic account holder in the Lee College of Engineering of UNC Charlotte you may also backup your personal computer data files to your Mosaic account (up to the disk quota limit of your Mosaic account). Your Mosaic account disk space is backed up daily by creating an image of your data to another disk. You may recover lost files from the most recent daily disk image. Data is also backed up to tapes on a daily basis and weekly on an 8 week rotation basis. At the end of each semester we back up the data and store it off site for up to 2 years. A restore of files is processed thru a request to the Mosaic Help Desk.

Your Mosaic account can be accessed from home via FTP, SCP, or web access – see <http://coe.uncc.edu/mosaic/> for details, or call either the PCS Helpdesk (704-687-3335) or the Mosaic Helpdesk (704-687-3150).

## OFFLINE

For offline backups, the choice of media must be made. One could use a flash drive, an external hard drive, an internal hard drive, or even another location on a home network (shared space, Network Attached Storage, or a server). Keep in mind that a flash drive is limited to the quantity of data that it can hold. An external, USB-connected hard drive offers a very convenient way to backup your primary hard drive on your PC.

## SOFTWARE

While some online backup services provide their own client for connection to their servers, often the service will be provided in the form of a web-connected folder for storage. Similarly, any offline backup function will require some sort of software to know what and when to back up files. While it is possible to back up all important files manually, it's much more convenient to have a program manage it for you.

A list of backup software is online at [http://en.wikipedia.org/wiki/List\\_of\\_backup\\_software](http://en.wikipedia.org/wiki/List_of_backup_software) – it is by no means a complete list, but it is fairly extensive. Another place for good information on backups is <http://lifehacker.com/tag/backup-utilities/> – it contains different backup solutions for Windows, Mac OS X, and Linux.

## WINDOWS

For basic Windows users, <http://lifehacker.com/398229/five-best-windows-backup-tools> provides an excellent set of backup tools, as well as links to guides written on their setup and use.

Finally, the simplest method is to use the built-in Windows backup tool. It is possible to use the Windows backup tool to select what files you want backed up and to where, and then select a schedule

for how often those files should be backed up. For Windows XP, see the Microsoft article, [http://www.microsoft.com/windowsxp/using/setup/learnmore/bott\\_03july14.msp](http://www.microsoft.com/windowsxp/using/setup/learnmore/bott_03july14.msp). For Windows Vista, see a VistaClues article at <http://www.vistaclues.com/schedule-an-automatic-backup/>.

## MAC OS X AND LINUX

Similar backup guides are written for other operating system. MaLife has a good article on using Time Machine to backup Mac OS X at <http://www.malife.com/backup>. For Linux, DesktopLinux has <http://www.desktoplinux.com/articles/AT2280165098.html>.