

Before it's too late ...

BACKUP YOUR COMPUTER!
EXTRAS



Your Backup Plan

A backup plan is essential!

How are you going to make sure you have:

- *3 copies of all your data*
- *On 2 different media*
- *1 copy offsite?*

My backup plan

C Drive (software)

- Weekly full, daily differential

D Drive (data)

- Weekly full, Dropbox cloud “immediate”

G Drive (photos)

- Weekly full, daily differential

My backup plan (2)

F drive is the backup drive (8TB)

- ▣ Permanently connected
- ▣ Protected by Macrium Image Guardian

Offsite backups (manual!!!)

- ▣ Copy latest backup to portable drive weekly
- ▣ Swap with drive at remote location

What's YOUR backup plan?

- You could swap drives once a week
 - One drive off-site
 - One drive connected for backups
 - The connected drive may not be protected ...



Questions

Answers to questions included here

How long to keep backups?

Leo Notenboom suggests:

- Most people should keep **daily incremental backups** plus a **full monthly backup for three months**.
- Keep backups long enough to recover from various problems, bearing in mind how quickly those problems might be detected.
- Special-purpose backups may have shorter or longer retention plans, eg a backup of a brand-new computer may be kept for the life of the device

<https://askleo.com/how-long-should-i-keep-my-backups/>

How long to keep backups?

Archival backups

- A good rule of thumb is to think long and hard, “Will I — or anyone — ever need anything from this backup ever again? And for how long might that need exist?”
- Then keep it a while longer. 😊

Question re drive number

- **Question:** Does Macrium Reflect recognise just the drive number or does it recognise the specific drive?
- Macrium looks for:
 - the folder you have specified
 - on the drive number you specified.
- If that folder is on that drive it will backup there.
- This means if you alternate between 2 drives, the same rules will work for both drives if they have the same folder structure and are plugged in as the same drive.

External hubs



- An **unpowered hub** draws its power from the computer through the USB port. It may not draw enough power to work your external hard drive.



- A **powered hub** has a separate plug to connect to power. These should be able to power one or even two external hard drives.

Image partitions and backup

A partition is just a way to organise the physical space on a hard drive.

- Partitioning allows you to split a hard drive so it appears to be multiple different drives. It's still the same, single disk, but the space on it is divided up to appear as two or more drives in Windows.
- **Backup partitions separately** so you can restore just the one that is affected
- See https://askleo.com/should_i_partition_my_hard_disk/

Encrypting your backups

Encryption is the process of scrambling your data using a secret password, pass phrase or other encryption key such that the encrypted data is effectively meaningless. You will need the **appropriate decryption key** to recover the original information.

Options:

- Encrypt sensitive data on your hard drive and it will be encrypted in the backup
- Backup a drive which is fully encrypted – decrypt first?
- Encrypt the whole drive after backup. **Will you remember your decryption key later when you need to access the drive?**

Encrypting your backups - references

- <https://www.pcworld.com/article/444459/why-you-don-t-need-to-encrypt-your-backup.html>
- https://askleo.com/should_i_compress_and_encrypt_my_backups/
- <https://askleo.com/back-up-encrypted-disk/>

Rescue disk

- The Macrium Reflect rescue disk contains a bootable, lightweight version of Windows and a full version of Macrium Reflect.
- The lightweight, non-persistent, version of Windows is called the Windows Preinstallation Environment (also known as Windows PE or WinPE).
- You can boot your computer into Windows PE from a CD, DVD, USB stick or USB attached external hard disk.
- Macrium Reflect creates custom Windows PE systems for each installation type by downloading the required components from Microsoft.

Backup your email

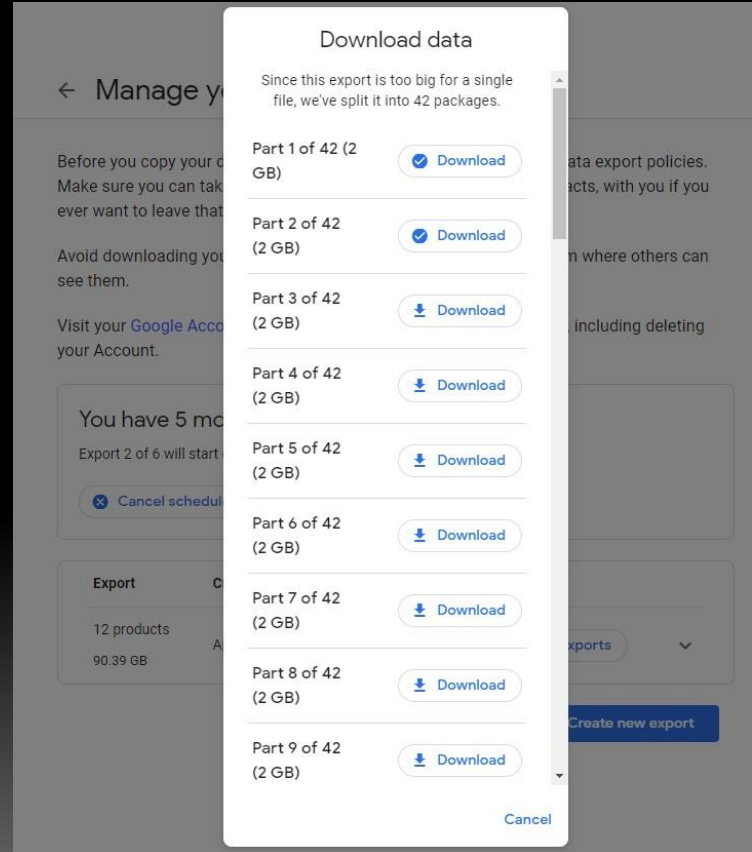
<https://askleo.com/back-up-my-email/>

Options

- **Backup email locally** using desktop software such as:
 - [Thunderbird](#),
 - MS Outlook (in MS Office, NOT Outlook.com) etc
- Use a different service e.g. have Gmail copy your Bigpond emails
 - You need to set this up correctly!
- Get Google to compile a Gmail backup for you monthly then download this - <https://www.rightinbox.com/blog/backup-your-gmail-account>

Backup your Gmail

- There are 47! Google 'products' you can include in your Google Takeout. I chose 12 and this takes 92GB!
- I suggest doing separate Takeouts for Gmail and for photos.

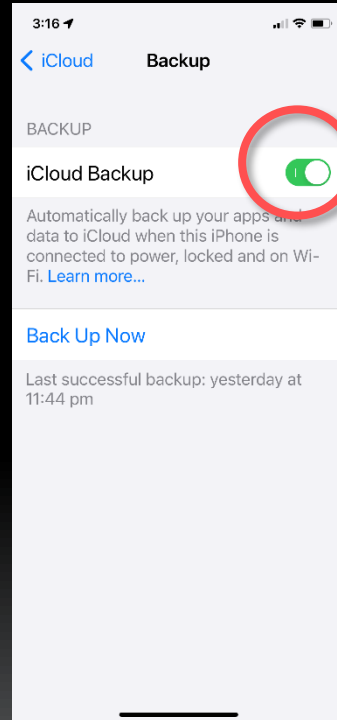


Backup your mobile devices

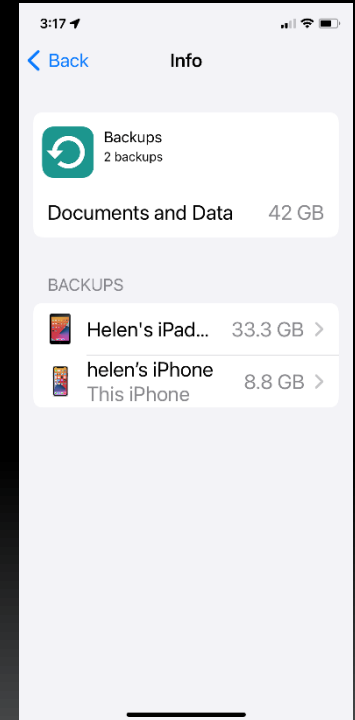
- Apple – backup to iCloud
- Android – backup to Google
- Both can be set to backup automatically

iPhone Backup to iCloud

Settings >
Apple ID >
iCloud >
iCloud Backup



Settings >
Apple ID >
iCloud >
Manage Storage >
Backups



Backing up your phone photos

- Using BOTH iCloud photo library AND Google photos may result in using a very large amount of Google storage.
- Use iCloud **OR** Google Photos.
- If you want to delete from Google, turn off Google Photos SYNC first!

Android backup

- Google > Backup (or see your manufacturer's instructions)
- <https://support.google.com/android/answer/2819582?hl=en>