

Lane Cove Creative Photography 2023

Essential Skills

Topics:

- File Handling
- Downloading
- Backing up
- Cataloguing
- Basic image processing

File Handling

After pressing the shutter
you have one copy of the image file

Managing how you download, backup
and store these image files is critical to
prevent loss of your valuable images.



Setting up a system for storing and
backing up your files is like using
paper files in file cabinets

File Handling

The disk can be considered to be a filing cabinet



Filing Cabinet → Disc Drive

Drawers → Folders

Hanging Files → Sub-folders

Folders → Sub-sub-folders

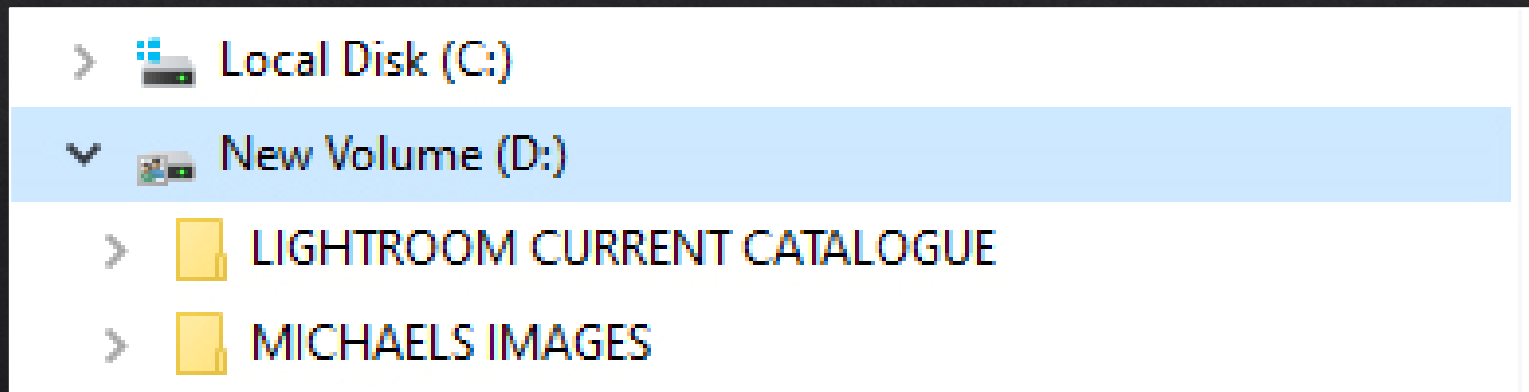
Files → Files

File Structure

Setting up a file structure is imperative to avoid losing or misplacing files

Set up a “Master” file location where all your images will be stored preferably on a separate drive

From your software:



Not in “My Pictures” on a Windows computer

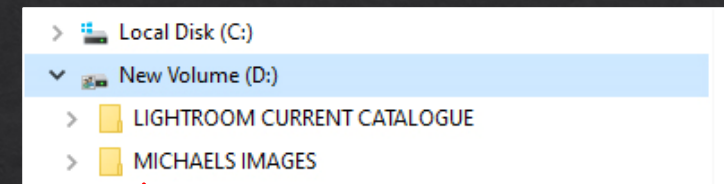
File Structure

Set up sub folders inside the “Master” folder

Label each with a meaningful name

Shot location, trip location etc

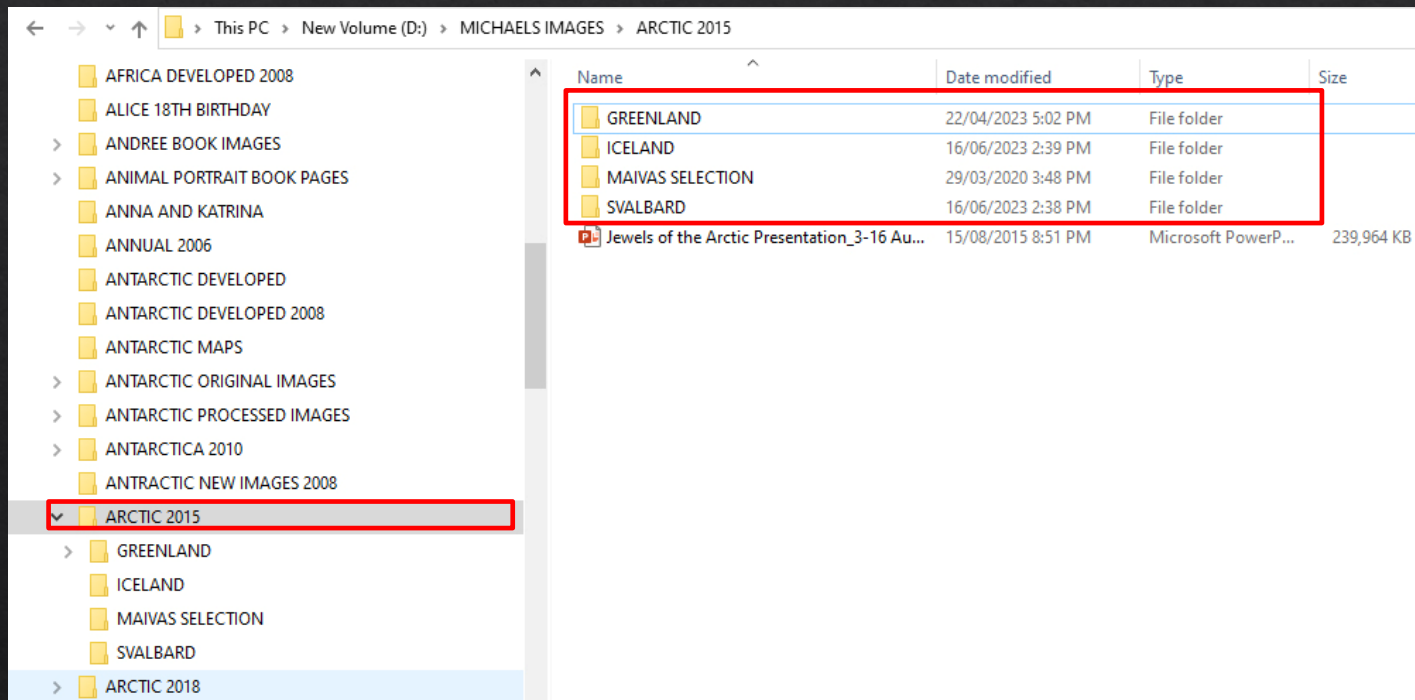
No need to label with a date as this is in the Metadata with each image



ARCTIC 2015	24/12/2020 2:18 PM
ARCTIC 2018	28/12/2020 1:14 PM
ARTHUR BOYD MDS	24/12/2020 4:21 PM
ARTS PHOTO RALLY AUG 2010	24/12/2020 4:21 PM
AUSTRALIA DAY	24/12/2020 4:21 PM
AUSTRALIA DAY 2006	24/12/2020 4:21 PM
AUSTRALIA DAY 2007	24/12/2020 4:22 PM
AUSTRALIA DAY 2009	24/12/2020 4:22 PM
AUSTRALIA DAY 2011	24/12/2020 4:22 PM
AUSTRALIA DAY 2012	24/12/2020 4:22 PM
AUSTRALIA DAY 2013	24/12/2020 4:23 PM
AUSTRALIA DAY 2014	24/12/2020 4:24 PM
AUSTRALIA DAY 2016	24/12/2020 4:26 PM
AUSTRALIA DAY 2017	24/12/2020 4:28 PM
AUSTRALIA DAY 2019	24/12/2020 4:29 PM

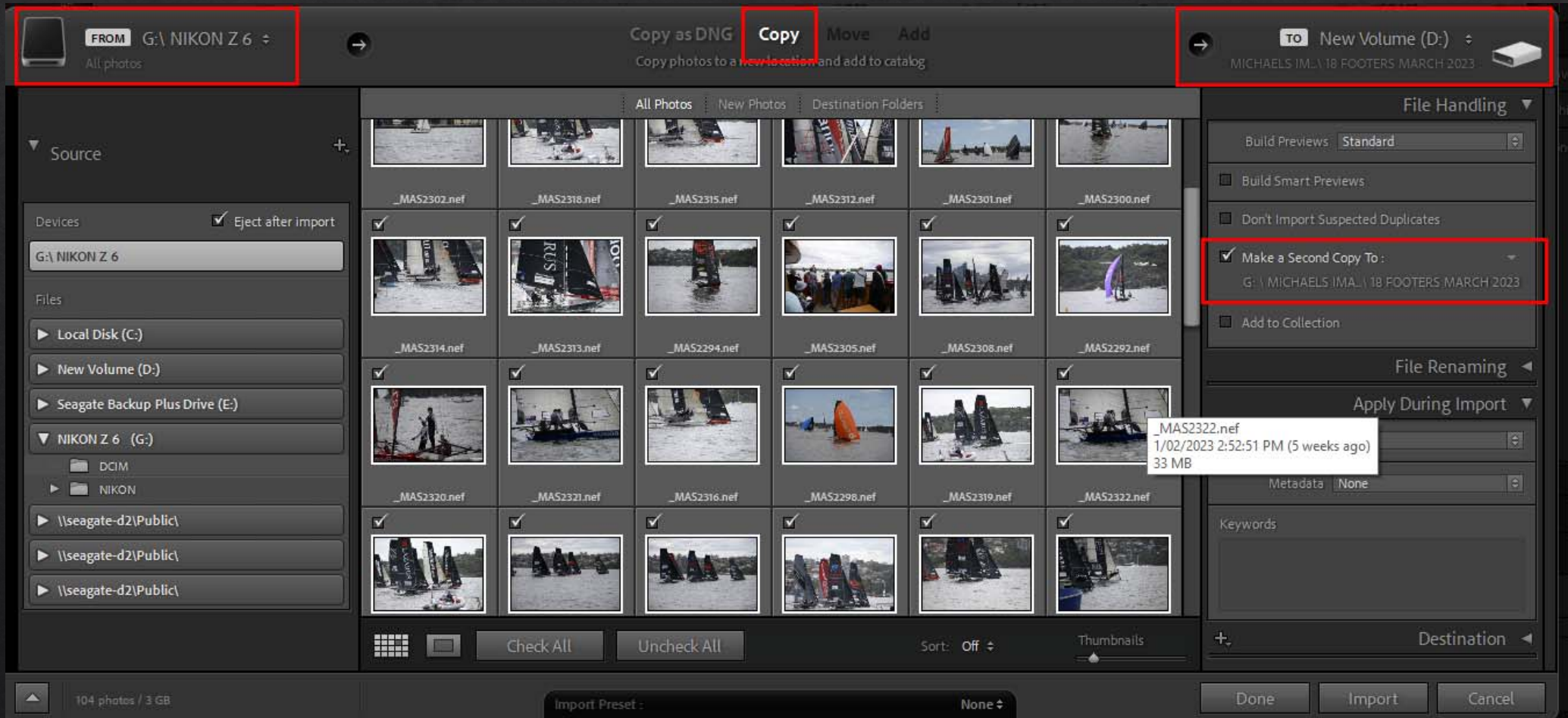
File Structure

If needed, create sub folders inside the main folder



Downloading

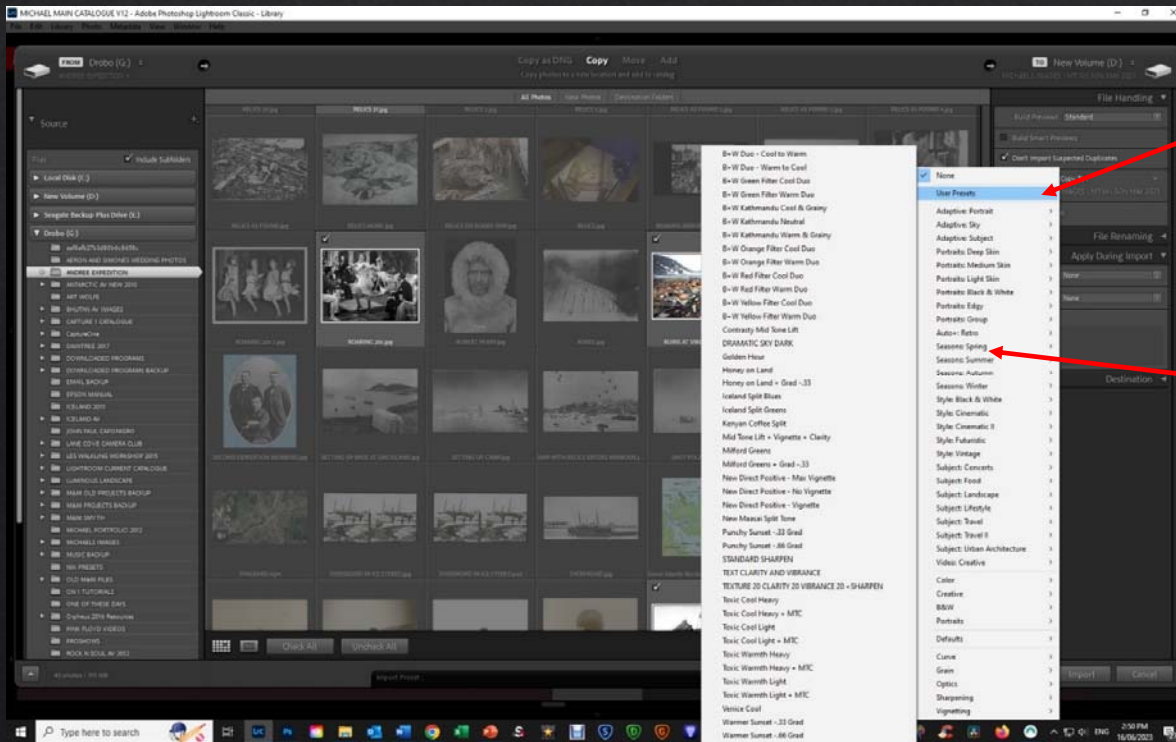
Use Lightroom to Download and make a second copy at the time of downloading as best practice



Downloading

When downloading, you can choose:

- To set up new folders
- Add keywords
- Apply some standard processing as a preset



Presets – standard or your own user presets

Keywording can be applied here, or later once imported

Creating Backups

Why we need to make backups:

All storage systems fail, having multiple copies reduces your chances of a catastrophic failure

An IT Specialist once said:

"There are two types of people, those that have had a hard drive failure, and those that are going to have one"

All hard discs will fail eventually, so how do we make sure we don't risk losing our valuable data and photos?



Creating Backups

**Do NOT back
up to the same
disk drive!!!**



Creating Backups

Your computer may be showing two drives – C and D

But these may be the same physical drive

If so it is not good to backup from C to D



Creating Backups

Data can also be lost due to:

- File corruption
- Accidental deletion
- Overwriting with another file
- Or being held hostage by a ransomware infection



YOU HAVE BEEN WARNED!

Creating Backups

Guarantee:

You will eventually lose one or more of your files

YOU HAVE BEEN WARNED!

Creating Backups

When this happens

You will need a backup



Part 2

How to create backups,

Cataloguing and

Basic processing

What is the best way to backup?

Making copies to DVD or CD used to be the way to go, but with the rise in files size and decrease in cost of alternatives, this is no longer viable.



1 DVD = 4.7 GB

To make copies of 4 TB of data would take
Over 850 discs!

Even if you had the time and patience to do this, how do
you catalogue them?
And how then do you treat additional files?

What is the best way to backup?

Cloud storage offers easy, offsite storage

But

There is a time factor to upload,
at 2 GB per day, it would take
2000 days! (5.5 years) to upload 4 TB of photos

Typical NBN upload speed is 15 Megabits/sec
8000 Mb = 1 GB, so to upload 1 GB it takes about 9 minutes
And 1 TB would take 148 hours

Plus, there is the cost. Cloud storage costs around
\$50.00 to \$70.00 per year for 5 TB



What is the best way to backup?



External Hard drives offer the best “bang for your buck”

Cost around \$200.00 for 6 TB

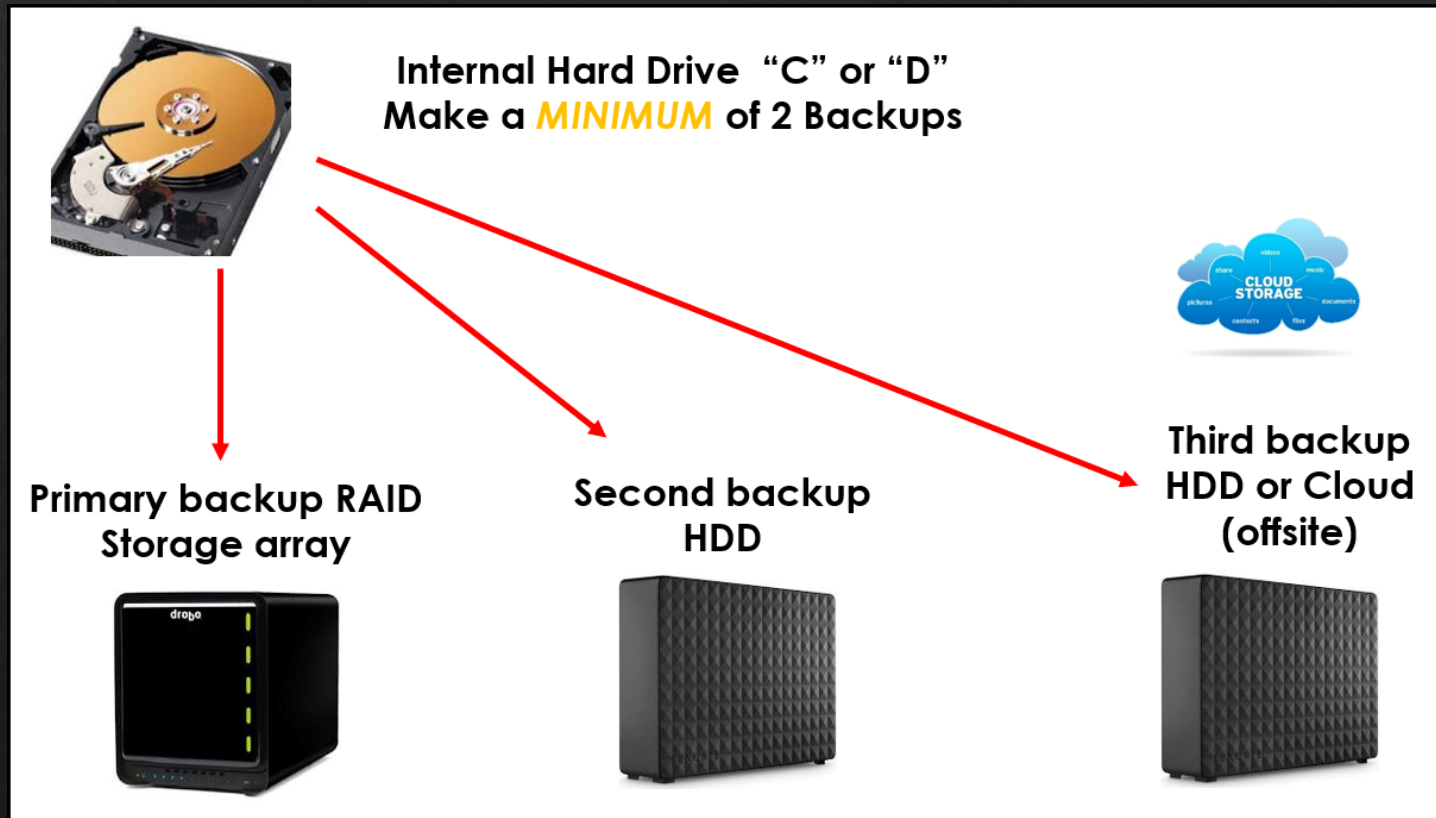
readily accessible to your computer via USB or
Thunderbolt

But,

Because all hard drives will fail, you need at least two of them,
if not three. So, the cost will be \$400.00 to \$600.00 to set up

What is the best way to backup?

Having an original plus two copies of your files on separate hard drives is considered to be a minimum backup strategy.



Set up your backup software and options

Note: File Synchronisation *IS NOT* a valid backup strategy



Internal Hard Drive "C" or "D"
Make a **MINIMUM** of 2 Backups

Primary backup:
RAID Storage array



Second backup:
external HDD



Third backup:
External HDD
or Cloud (offsite)

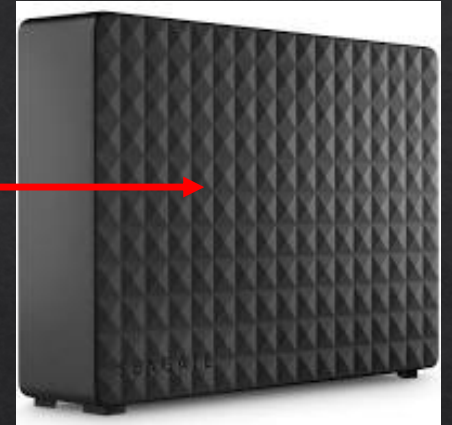


Why Synchronising is *NOT* a valid strategy



File deleted or corrupted
In Master Folder

Synchronising
ensures both copies
and deletions
are the same



File is deleted or
corrupted version is
copied to backup

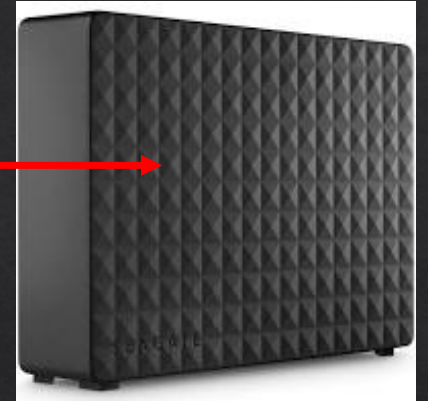
No copy available
to restore

Why One Way Backups *ARE* a valid strategy



File deleted or corrupted
In Master Folder

One way copy
From Master Folder to
backup drive,
NO DELETIONS



Corrupted file
cannot be read, or is
saved as a new copy.

Original of
deleted/corrupted file is
still on backup and
available to restore

Setting up a backup system

Primary backup device – ideally a RAID Storage

Redundant
Array of
Independent
Drives



Multiple drives reduce the effects of failure – **BUT** do not eliminate the risk, as all drives **WILL FAIL** at some time. Inbuilt redundancy helps.

Setting up a backup system

Second backup:

External attached drive with large capacity – 6 TB or larger

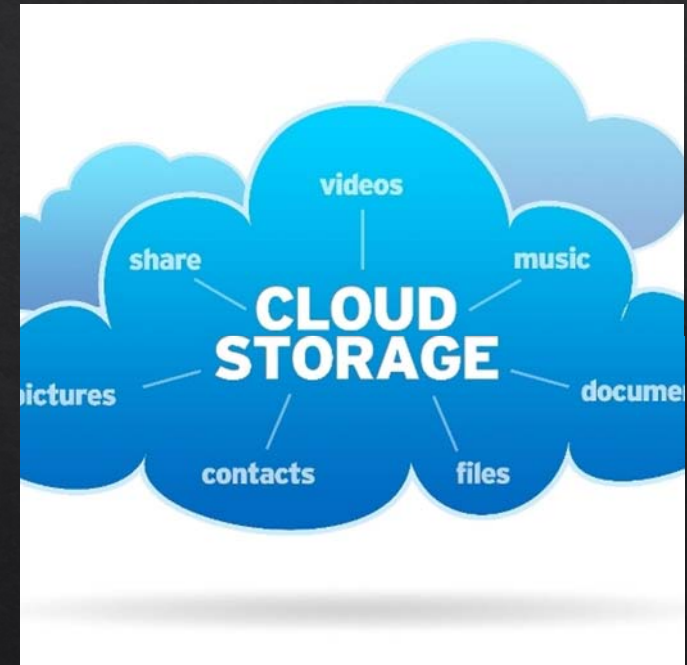


Setting up a backup system

Third backup – another external hard drive, or cloud



3rd backup – ideally off site – or rotated with second backup



Cloud storage off site but upload times and costs are prohibitive

Managing your backups

Apple users:

- Time Machine may suit, but check options (backup only – not synchronisation) and capacity
- Third party software

Windows users:

- Third party software to manage backups

Tips for managing backups

Avoid software that encrypts your files or encloses them in a proprietary format

Ensure backups are incremental and that deletions from the source are not propagated to the backups

“Free” backup software is generally only worth what you paid – i.e. nothing

Managing your Catalogue and files with Lightroom

Lightroom has many ways to work with your image files, including:

- Folders
- Metadata sorting – capture data, file type, etc
- Collections
- Keywords
- Rankings and colour labels

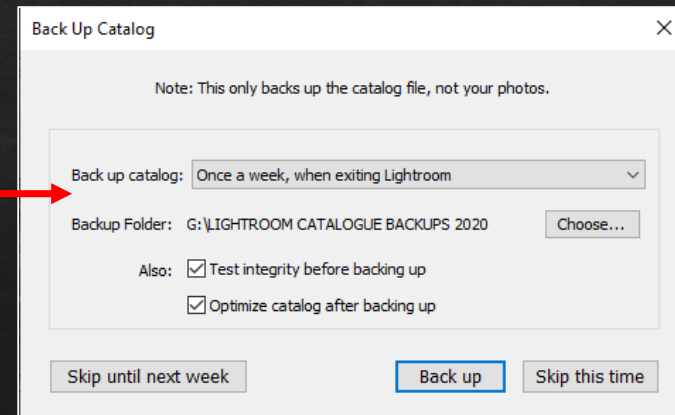
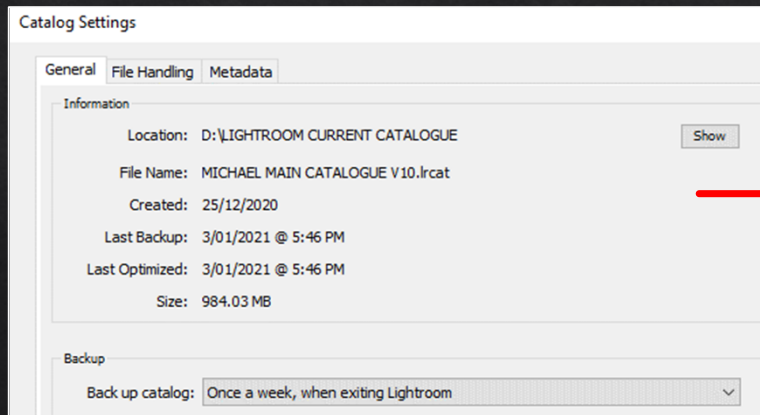
Also, Automatic Collections and Custom Collections may do it for you

**Remember to move any files or folders within Lightroom.
Do not use Apple Finder or Windows Explorer as
Lightroom will lose connection with the files.**

Backing up your Catalogue

Lightroom has inbuilt backup options:


- but it makes a full backup of all catalogue files each time
- so you end up with a massive number of backups over time



Backing up your Catalogue

Using Lightroom's backup system, in a year you will have **52** versions of your catalogue copied and taking up space (each one can be up to 400MB or more)

You should still use this, but remember to delete old copies from the backup folder and keep the last 2 or 3 only

 2020-12-27 1609	27/12/2020 4:15 PM	File folder
 2021-01-03 1742	3/01/2021 5:46 PM	File folder
 2021-01-18 1138	18/01/2021 11:42 AM	File folder

Backing up your Catalogue

Remember: Backing up the Lightroom catalogue

DOES NOT back up your image files

Backing up the catalogue copies all your processing settings, collections and keywords, BUT NOT the image files themselves.

Basic Image Processing in Lightroom (Same as Camera RAW)

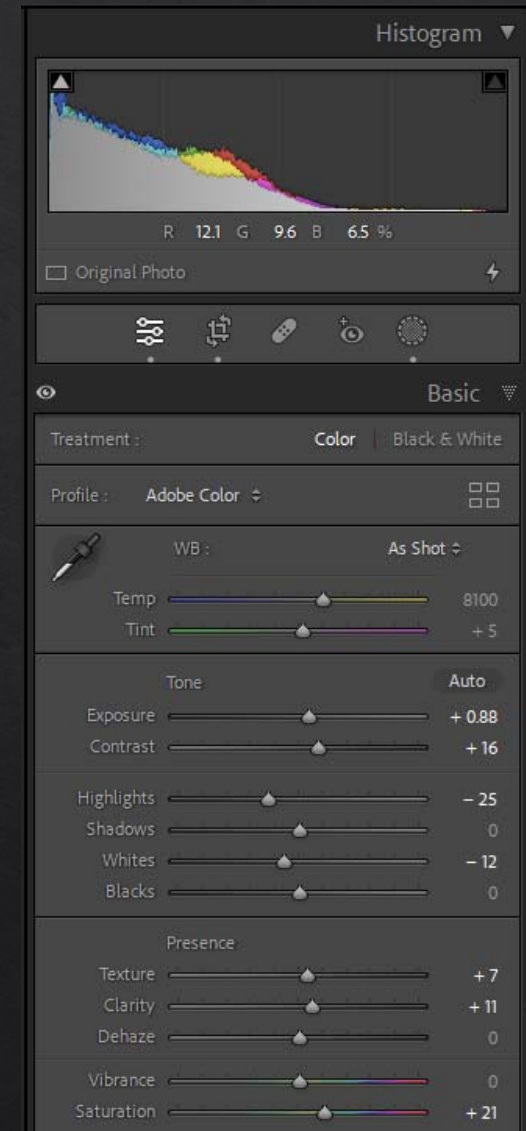
Some important things to remember when processing files:

- Always work with the RAW file and do as much as possible in Lightroom – Parametric editing, not Pixel editing in Photoshop
- The preview you see in Lightroom is a default rendering of the RAW file and NOT the same as on the camera back. All files require processing for optimum quality
- Your image file only becomes an image when exported – either to Photoshop, or as a rendered file such as a TIFF, PSD or JPEG image – using the options you select

Basic Image Processing Steps

Basic steps that should be applied to all images:

- Crop and straighten
- Set the Black point using the Blacks slider
- Set the White point using the Whites slider
- Set the mid tone balance using the Exposure slider
- Set the White balance using the temperature and tint sliders (L^*a^*b colour) or use the eyedropper, or presets to set the “correct” desired colour balance
- Set the colour intensity using the Vibrance and Saturation slider

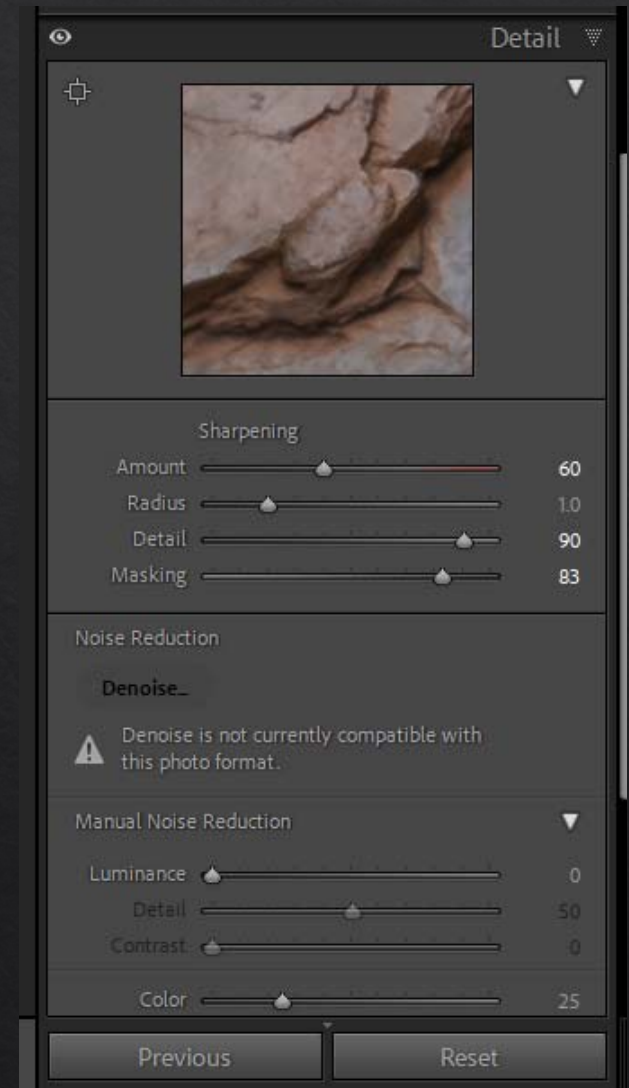


Basic Image Processing Steps

Basic steps that should be applied to all images (cont):

- Apply some local contrast using the Clarity and Texture sliders.
- Apply some initial sharpening using the detail panel
- Apply some Noise reduction using the new tools*

* Note: only works on RAW files, not DNG, JPEG, TIFF or PSD

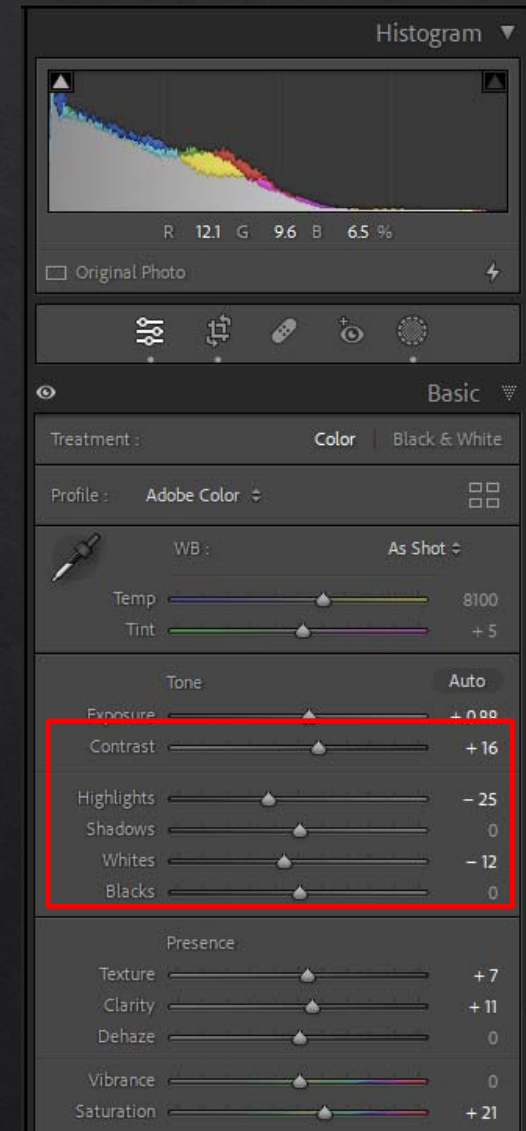


Other Processing Steps

Other adjustments may be necessary after evaluating the image once the basic steps have been followed.

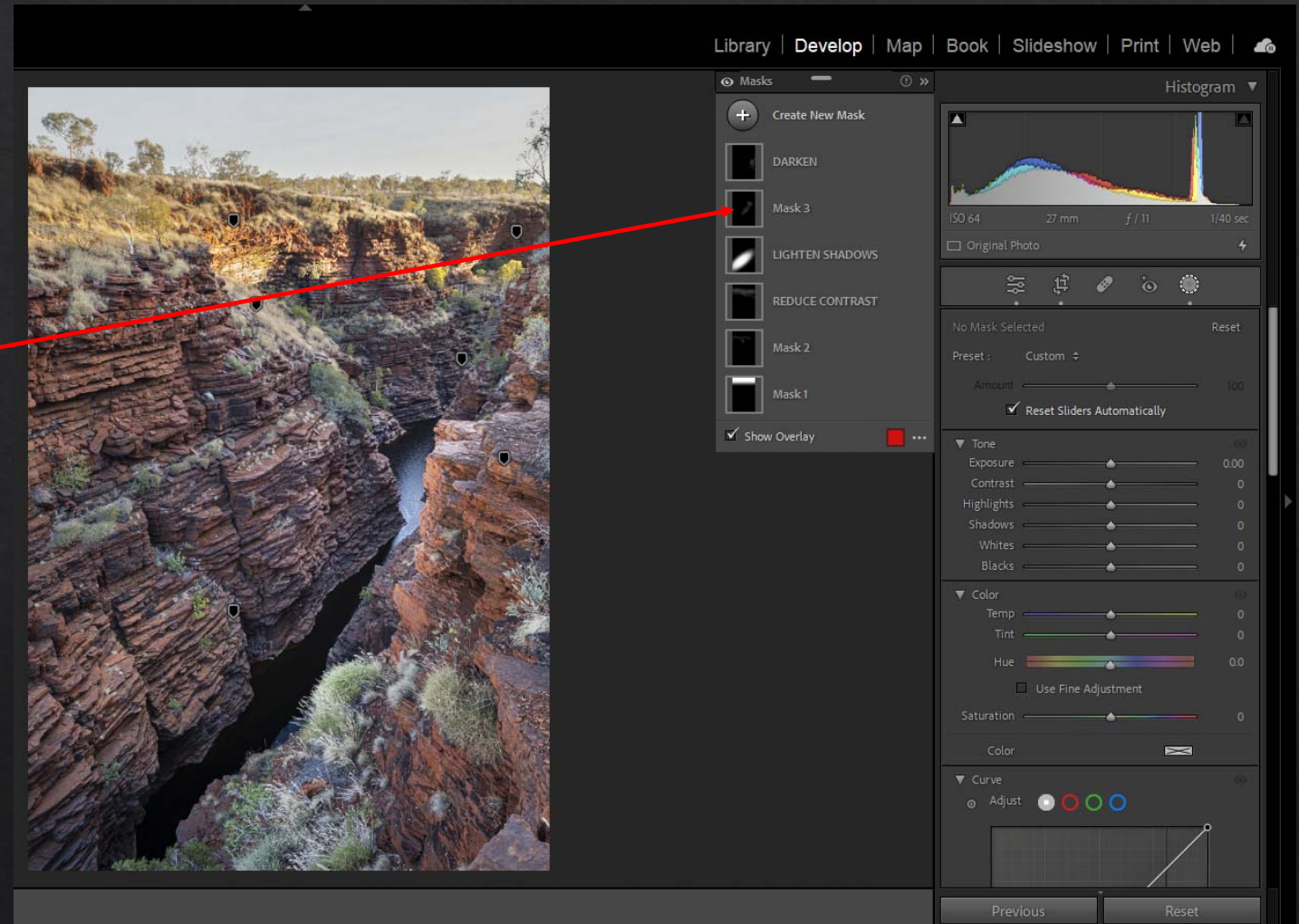
Additional steps include:

- Shadow and Highlight adjustments using the Shadows and Highlights sliders
- Adjust contrast using the contrast slider
- Apply lens and/or Chromatic aberration corrections using the profiles in the Lens corrections panel (particularly for wide angle lenses)
- Apply a vignette using the Effects panel
- Remove atmospheric haze using the Dehaze slider (cautiously)
- Remove dust spots using the spot removal tool



Selective Adjustments

Selective adjustments
are now possible with
the revised and
expanded Masks panel



Advanced Editing In Photoshop

In order for a RAW file to be edited in Photoshop, Photoshop Elements, Luminar etc, the file must be rendered into a pixel based image – TIFF or PSD.

This restricts the editing options somewhat, but is required for the following purposes:

- Creating Composite images (including adding textures)
- Critical retouching (you need more control than Lightroom offers)
- Blending of filters and plug-ins. Lightroom can access plug-ins like NIK and Topaz, but you lose the power to blend, mask and adjust opacity once the filter is applied in Lightroom
- Creative editing using the built in Photoshop tools like Content aware Fill, Perspective Warp, Distort, Liquify and several others

Summary

Establishing a systematic approach to downloading and backing up your image files will save you from a disaster when the inevitable hard drive failure hits.

Following the basic processing steps in Lightroom will ensure you get the most out of your RAW files and will allow you to export images for further editing in Photoshop, or exporting as image files.

QUESTIONS ?