

"THE IMPORTANCE OF BACKING UP YOUR IMAGE FILES" BY MICHAEL SMYTH

There is nothing more important than making backups of your image files because all storage systems can fail, and you need to protect your prized photos. In this tutorial we step through the process.

INTRODUCTION – WHY DO WE NEED TO BACKUP?

We need to backup our images because there is a real possibility that whatever storage medium you are using can fail at any time, or you can accidentally delete images, or even worse, have your important images held hostage by ransomware that can infect your computer. You can also inadvertently overwrite important files by accident, so you need to have a backup copy or copies in case the worst case scenario plays out. An IT professional once said: "*there are two types of people, those that have had a hard drive fail and those that are going to have one fail*".

A popular maxim is that "*You don't really have a backup until you have at least 3 copies of your data, with one copy held at another location*". With things like cloud storage, it is easy to keep a copy of our documents and other data in a separate location, but what happens when you have an extensive photographic collection that runs to multiple Terabytes? Keeping a third copy away from your home or business location is not quite so easy, but we should at least make multiple backups, even if off site storage is not possible.

My personal catalogue of images runs to about 3.5 TB and Microsoft One Drive gives me 1TB of storage free, so I can't use that for photo backup, unless I pay a large amount for extra space. Other options like Dropbox start to get very expensive once you move beyond 2TB, so that is out of the question as well on a cost basis. The other way you can make a copy "offsite" is to have a portable hard drive that resides with a family member or neighbour, but that can also be a pain to manage and keep up to date.

So, given we need to backup and hold at least 3 copies of our data, how and what is the best way to go about it? Also, what are the pitfalls that you can get into and how do you avoid them.

And finally, what about the Lightroom catalogue, do I need to back that up as well?

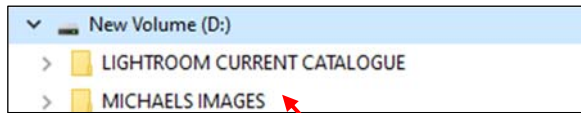
Here is the step by step process for ensuring your image files are safely and consistently backed up:

1. SET UP YOUR FILES AND FOLDERS CORRECTLY

You can easily get into trouble if you don't have a consistent system for downloading and copying your files, so it is imperative that you set one location (on your main computer or on a permanently connected external drive) that contains all your "master" copies of your images. This is the location where you download all your images from your memory card. All editing and saving of modified files should remain in this location.

The best way to handle this is to create a folder on your chosen hard drive (preferably not the drive that holds your operating system, if possible) that you call "**MICHAELS IMAGES**" (assuming your name is Michael, if not, use your name. **DO NOT** call this folder *MY PHOTOS* or *MY PICTURES* as you may get confused with *Microsoft's My Pictures* folder). We do not recommend using anything within the computer operating system just in case there is a problem with the software, so avoid the My Pictures folder in Windows and set up a separate folder for all your images.

Inside the Master Folder, which we are calling “**MICHAELS IMAGES**”, create a new folder for each photo shoot, topic or location, depending on your preferences. It is important to make all subsequent folders inside the Master Folder as this will simplify the backup process. Give each folder a name that is relevant to the content. You don’t need to use dates as the date the photo was created is included in the Metadata and can be searched from Lightroom, but it is up to you how you label them, just use something that you can follow.



Left: The recommended structure for image files. Use a separate folder for the Lightroom catalogue and its sub folders. “**MICHAELS IMAGES**” is the Master Folder.

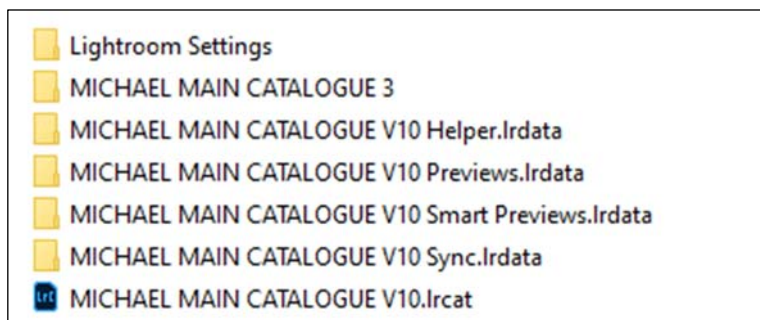
Create new folders inside the Master Folder for all images downloaded or imported. It doesn’t matter how many folders are created within this folder as this becomes the reference point for doing your backups.

With your master folder and sub folders set, all editing and saving of files should remain in these folders, such as when you create a TIFF or Photoshop file from a RAW file, save it back into the same folder. This makes it easy to find later on as the RAW and processed files are in the same location.

2. SET UP LIGHTROOM TO READ THE CORRECT FILES

When setting up your folders and if using Lightroom to import and catalogue your images (and why wouldn’t you?) make sure the imported images are saved into the Master Folder and sub folders. Make sure that Lightroom is seeing these folders and not any backup folders on other drives.

To keep everything consistent, create a separate folder in the same location as your Master Folder and use it to store the Lightroom catalogue and all its subfolders. Call this “**LIGHTROOM CURRENT CATALOGUE**” or something similar. If it currently resides in a different location, copy the whole catalogue and all associated folders into this folder (make sure you have quit Lightroom first).



Left: The Lightroom catalogue and associated folders. These should all reside inside the “**LIGHTROOM CURRENT CATALOGUE**” folder. This is also to make it easier to backup the catalogue separately, if required (backing up the catalogue can be set within Lightroom’s preferences and Catalogue settings). More on this later.

Important note: **Backing up the Lightroom Catalogue DOES NOT back up your images**, it only backs up the catalogue and your processing information. Also, each time you back up the catalogue you are making a Zip (compressed) copy of the catalogue. When you set this up you can stipulate how often the catalogue is backed up. Usually weekly or fortnightly is fine.

Your hard drive should now contain two Master Folders that we will use to create our backups from:

The Master Folder for your photos, called “**MICHAELS IMAGES**”

The Lightroom catalogue folder, called “**LIGHTROOM MASTER CATALOGUE**”

3. SET UP YOUR BACKUP SOFTWARE

Using the operating system's inbuilt backup software might seem like a simple choice, but unless you can configure it to work the way you want and configure it to make multiple backups, it may not be the best answer. You will also need to be able to set up the software to make backups to different external hard drives. Before you consider using third party software, check to see if your operating system can meet your requirements. I have looked at the backup options within Windows and they **do not** suit.

There are several third party software providers that offer products that allow a bit more control over your backups, so it is advisable to check them out before you decide how to proceed.

I have been using a package called **GoodSync** for a few years and after some initial trials in getting it set up, it has served me pretty well. (www.goodsync.com the cost for a personal licence is AUD\$39.95).

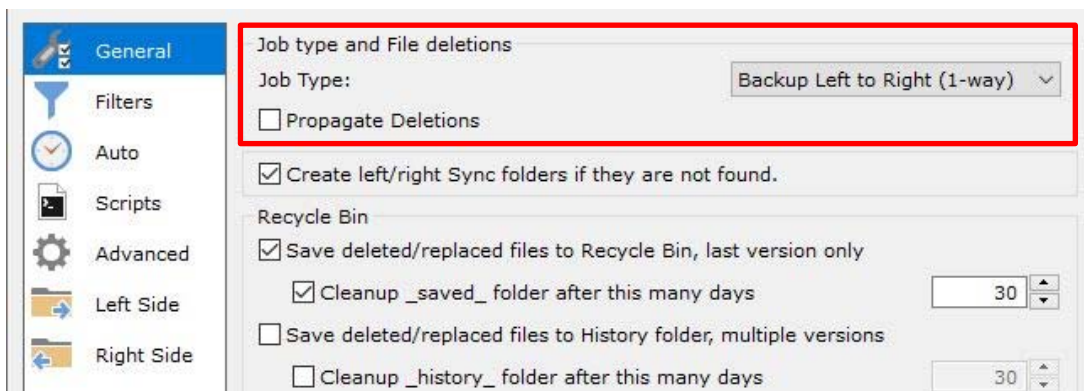
The important things to look for in any backup software is the ability to dictate (also called "**setting rules**") how the data is backed up. I personally don't like any software that contains the backed up data inside a proprietary file system. I want to be able to easily access my backups with either Windows Explorer (File Explorer) or the Mac Finder and I want to see exactly the same file structure in my backups as in my main hard drive. By doing some random checks between folders you can satisfy yourself that it is all working correctly.

SETTING UP THE BACKUP PROTOCOLS.

The most important part of setting up the backup process is to make sure that you are performing a "**Backup**" and **NOT** a "**Synchronisation**". Syncing files can be handy when you want the same files on say, two separate computers, but it is not useful for backups. For our backup scenario, we want the software to look at all the files in the Master Folder "**MICHAELS IMAGES**" and compare them to the same named folder on the backup external drives. At the first time using this backup the system will copy all of your files from the Master Folder to the same named folder on the backup drive, unless of course you already have some or all of the files already copied. Every time after that your software will compare the contents of both folders (and all sub folders) and add any missing files or amended files from the Master Folder to the backup drive. You can configure the software to do the same thing with more than one external drive.



Left: A typical setup for backing up files from the Master Folder on the left to the backup folder on the right. **Note the action is copying one way only – Left to Right.**



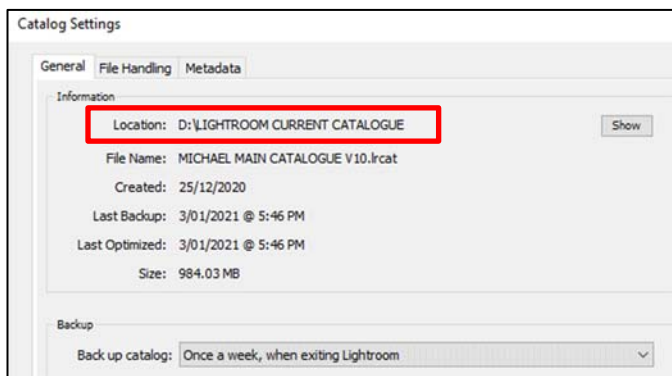
Left: Some of the options settings in Goodsync. **Make sure you turn off "Propagate Deletions" to prevent the software from deleting any files.**

With this type of scenario, if you delete any file from the master folder, either intentionally or accidentally, it will NOT be deleted from the backup drive. This is the safest way to work. If you instead do a two way synchronisation, any file deleted will be deleted from the backup as well, so you lose the chance to restore a file. If using other software for backups you will probably need to go into the software's preferences to set the option to "No Deletions" or similar.

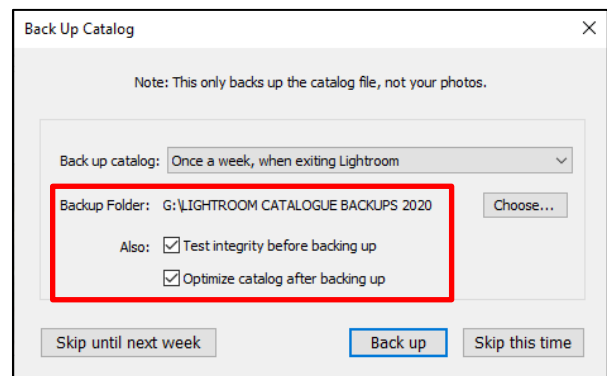
Setting up the same protocols for the two or three separate drives will enable you to manage the process to ensure you have the same copies in several locations. These will exist as separate "jobs" in Goodsync.

BACKING UP THE LIGHTROOM CATALOGUE

In the Catalogue Settings part of Lightroom, you have options to set up backups of the catalogue. Here you can specify how often the catalogue is backed up. Using these backup settings Lightroom creates a Zip file backup of your catalogue in the location specified.



Above: The backup options where you specify how often Lightroom is backed up.



Above Right: The backup settings where you choose where and how backups are made.

You should note that over time you will accumulate multiple backups as this is not an incremental backup but a full copy of everything. You will need to access the folder where these backups are saved and occasionally delete all but the last 2 or 3. Each backup is up to 400Mb so can start to take up a lot of space.

We can be more efficient in making backups of the Lightroom catalogue by using our backup software to create them for us. By using the same protocols as for our images, we only end up copying the changed information to the backup folder, so we only have one copy (although by making backups to more than one drive, we are protected)



Left: One way backup of the Lightroom catalogue.

By selecting the master folder that contains all the Lightroom catalogue files, we can simply do an incremental backup. Using this system instead of Lightroom's own backups you only have one copy of the catalogue and don't end up with multiples.

Backing up the Lightroom catalogue can take a while as there are a huge number of folders and sub folders to check through. Give the software time to complete and it will work for you.

4. BACK UP ON A REGULAR BASIS

Having a good protocol for doing your backups is no good unless you actually do them on a regular basis. Some packages can do this for you automatically, but you need to make occasional checks as there are many factors that can interfere with this process. I do my backups manually, at a minimum of weekly, but usually daily at the end of my session on the computer. In fact, as soon as I finish writing this, I am going to do a backup.

Item	L Size	L Date	L	R	R Size	R Date	Status
📁 MICHAELS IMAGES BACKUP TO DROBO	1,948,426,892	(folder)	⏪ ○ ⏩ 4		1,948,425,892	(folder)	Changes
📁 HUNGARY 2017	1,948,426,892	(folder)	⏪ ○ ⏩ 4		1,948,425,892	(folder)	
📄 HANDS_MDS1225.psd	409,944,156	6/01/2021 4:27:47 PM	⏪ ○ ⏩	➡	409,943,968	28/12/2020 3:27:49 PM	L:TimeSize<>
📁 MICHAELS PHOTOS	1,538,482,736	(folder)	⏪ ○ ⏩ 3		1,538,481,924	(folder)	
📁 HUNGARY 2017	1,538,482,736	(folder)	⏪ ○ ⏩ 3		1,538,481,924	(folder)	
📄 AT THE BEAUTY SALON_DSC5377.psd	353,222,266	6/01/2021 4:29:15 PM	⏪ ○ ⏩	➡	353,222,072	1/01/2021 4:05:31 PM	L:TimeSize<>
📄 LUBLJANIA WINDOWS_DSC4724.psd	588,551,798	6/01/2021 4:28:53 PM	⏪ ○ ⏩	➡	588,551,494	1/01/2021 5:04:26 PM	L:TimeSize<>
📄 PROPAGANDA BEATS FACTS_DSC3983.psd	596,708,672	6/01/2021 4:28:19 PM	⏪ ○ ⏩	➡	596,708,358	28/12/2020 4:31:52 PM	L:TimeSize<>

Above: Running the backup in Goodsync you should see all the images you have worked on since the last backup. This is a useful way to check that the protocols you have set up are working correctly.

Getting into the habit of doing your backups regularly and checking that it all works will potentially save you from a disaster that is just waiting to happen. It may not be the most exciting thing you can do, but anything is better than the horror or realising that you have lost images.

Over the page I have included some notes on popular backup software packages together with costs as of January 2021. Please evaluate them to see if any are suitable for your backup requirements

WINDOWS BACKUP SOFTWARE PACKAGES

There are dozens of backup programs for Windows machines, here are details of some of the most popular:

ACRONIS TRUE IMAGE

This is one of the best known backup packages that combines computer security with a backup solution. Generally regarded as one of the better packages it is flexible and can do automatic backups, once configured correctly to suit your needs. Cost from AUD \$56.00 per year subscription.

GOODSYNC

Goodsync is my personal choice due to it's customisation and flexibility. You need to drill down into the advanced options to ensure you have everything set up correctly, but once done this works well. I prefer to do my backups manually, but to be sure they are actually happening. Cost AUD \$40.00 for 1 year subscription.

EASEUS TODO BACKUP HOME

This is less feature rich than Acronis True Image, but still does most of the important things well. There are some curious terminology that can be confusing, but it does most things well, if a little slowly. Price from AUD \$30.00 for 12 months subscription.

FREE BACKUP SOFTWARE

There's an old adage that "you get what you pay for" and that is largely true of software as well. If you are of a mind to find a free solution, there is one package you might consider.

AOMEI BACKUPPER STANDARD

This is a simple, easy to use software package with a few caveats, but if you don't think your images are worth paying to keep them safe then this might be the option for you.

APPLE BACKUP SOFTWARE PACKAGES

TIME MACHINE

Apple provides the Time Machine for performing automated backups of data and apps. As a Windows user I have unable to verify whether the Time Machine synchronises your files or does a controlled backup. It will also delete the oldest backups when the hard drive is full, which suggests it might make a full backup each time, which is not what you really need. You will also need to be aware that if you hold photos in another folder other than the default location Time Machine may or may not back this up automatically. Mac users should investigate this further to make sure Time Machine can be configured to make incremental backups with no deletions and not just a full copy of everything over and over.

GOODSYNC AND ACRONIS TRUEIMAGE

Both Goodsync and Acronis Trueimage software packages work on both Mac and Windows machines, so consider this per the notes above.

Given the possible limitations of Time Machine and the need for making multiple backups onto more than one external drive, I recommend you trial either of the two paid for packages above.

The above are not meant to be a comprehensive survey of available backup apps, so please do your own investigation and most packages offer a free trial so you can evaluate them yourself.

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