Simple digital asset management for photographers

Can you find your digital images when you need them, or do you spent more time looking through endless folders on one or more hard drives? This can be even worse if you spent hours editing the image in Photoshop but can’t find the latest version.

Added to that, do you make sure you have adequate backups of your images or do just make a copy onto a second hard drive but not really track where that copy really is.

How much would it cost if you lost your photos with in monetary value or personal loss. If it is throwaway photos that don’t mean much then the loss is not great however if they contain photos of moments that cannot be reshot and they may be irreplaceable.

If you feel that it’s time to create an ordered place to keep your photos safe then maybe it may be time to look into digital asset management.

In a nutshell what digital asset management is just a way of managing an archive of images. However, if you are going to create an archive then some strategy of building archive may be worthwhile. Hopefully this is where digital asset management comes in to play.

Digital Asset management or DAM, gets thrown around quite a lot. When people speak or write about DAM, they are typically talking about one of two things: either DAM as a strategy or they are talking about DAM systems.

Dam systems are just basically how the archive is stored onto normally hard drives. The strategy is how the hard drives I used to store the images which constitute the archive.

Before we go onto far it must be stressed that digital asset management does not just apply to digital images it can also apply to video, audio, or anything that is digital and may be an asset to somebody i.e. digital content. This document will only refer to digital asset management that applies to images normally taken by photographers. This type of DAM is a subset of the overall concept of DAM.

In building a strategy we need certain rules to go with that strategy these are sometimes termed the DAM rules.

# **The DAM rules.**

## 1. Do No Harm

Never manipulate your original media, i.e. the original image or images. Once the original is changed there is no way to revert to the untouched original its lost forever, always work on a copy of the original never the only copy of the original? This also applies to versions. If you create a version of the original. Then you want to make a new version of the version you just created then copy it and then make the changes. In this way you then make a set of versions that you will be able to go back to if necessary.

## 2. Be Safe with Your Data

Digital images fractions of a second to make and fractions of a second to destroy or lost. This can happen in a number of ways. For best protection, use the 3-2-1 rule of duplicating your data. This is standard practise in the IT Industry.

◾ 3 Keep at least three copies of your data: your primary copy and two backups.

◾ 2 Keep your copies on two different, physically separate media. One set of files will likely be on your computer hard drive. Keep your two copies separated, each backed up to different media (external hard drives, USB flash drives, or cloud storage services).

◾ 1 Keep one copy of your images offsite. Some people use a system of rotating two external hard drives, swapping out one hard drive each week or each month, depending upon how frequently you add data. I use USB hard drives and store them away from main archive. A cloud storage service is also a good way of keeping a copy offsite, however some cloud storage does not store RAW image data or metadata. A non-photographic cloud storage site may be better as your image data will be just that, data. The cloud site will not try to manipulate your image data in any way.

## 3. Back Up Supporting Documents

As part of the DAM process is to create metadata on youy images. Metadata is the descriptive information about your image files (data about your data). Digital asset management systems rely heavily on metadata, as it’s critical for searching, retrieving and managing your digital assets. This is because the archive needs to know many aspects about an image in order to find an image or set of images from a set of search criteria. For example, just looking at an image will not allow the system to associate the image with the Walkers wedding. However, tagging the Walkers wedding photos with Walkers-wedding will.

## 4. Never Use Your Archive for a Backup.

An archive is the place where one copy of each version of an image are stored. This usually means that your archive contains the original, untouched image file, and possibly the final working versions of the edited image files derived from the original or originals. These may be your originals which may be irreplaceable, but also may contain versions that may taken some time to edit and get them just how you like them. If the archive is lost how would you recover?

### Long term archival storage of the Archive

One way of safe guarding the archive is to periodically update an archival copy of the archive using Blu-ray. One of the major benefits of Blu-ray as a data archiving solution is the format's durability. Traditional hard disk drives are prone to hardware failure as their components inevitably diminish over time. Blu-ray discs, meanwhile, are much sturdier, ensuring that this information will be available for years to come. If you use Archival quality Blu-ray disks then some manufactures specify a 100 year life of the disk. SIA makes burning Blu-ray easy, given the size of the Bly-ray you are using SIA will create a set of volumes. each no larger in size than the maximum size of your Bly-ray disks. Each volume will have a number this is its volume set number, on recovering the archive the volumes will be read back in the same order to recreate the archive.

## 5. Regularly Check and Update Your Archive

The way most archives are used, images within them may only be accessed infrequently but does not diminish the importance of the image, you expect the image to be accessible and intact. Looking in your file directory and seeing an organized list of all of your image files may be reassuring, but don’t be fooled. Just because the image file shows up in your file directory does not mean that the file is usable. The file could be corrupted or the storage medium could also be corrupt or damaged.

# A storage strategy

So we have some rules, now we need to consider how to implement those rules in the first place is how we might implement a storage strategy. This will be how we are going to use hard disk space.

## Hard drives

But first, maybe we need to talk about the hard disks themselves. Hard disks now can come in sizes up to 12 TB these discs also not too expensive now either so considering how much space our archive may take probably will not be a particularly high consideration. Using RAID may be a good idea for our primary archive. This would give a fast set of redundant drives in which to store our images.

However, RAID have their own types problems. The first is that most have a proprietary RAID controller and if the controller dies or goes wrong then you have lost the RAID array. Also some raids will not always inform that one of the drives have gone down only when a second drive goes down do you know about it. At which point you loss the array. One last problem that I have come across is that sometimes when fixing a faulty drive you may pull the wrong drive again lose the array.

Having two or preferably three copies of the archive on completely separate locations is a far better option than to just rely on a RAID system.

These copy discs can be external USB drives which are now quite cheap for the size of drives. They also quite fast as well using USB three or C-type USB interfaces.

## Building a Unified Archive Structure

This means, how am I going to organise my archive structure on the hard drives. The first thing may be to consider is how are you going to locate your working copies of images i.e. the location of a possible workspace in which to edit images. The second thing may be worth considering is whether to split original images from copies.

I would suggest you do for couple reasons. The first reason is you will deal with original images as taken on the camera slightly differently to copies of those images. The second is how your archive will grow. As you take images on digital cameras they will go into originals archive. This will grow over time it will be possible to store your images to permanent media. However, if that archive also contains edited copies then you most likely will store those copies with the original this means you may need to go back and re-copy that part of the archive to permanent media. If on the other hand edited copies are placed in a second archive called say the derivative archive then this archive can grow over time without touching images in the originals archive.

So from this we have three areas to consider, we have the workspace which is where images are edited, we have an originals archive and a derivatives archive. Now we have identified three archives or areas that will contain images the next thing is how these archives themselves are structured.

We could put all our images in one folder on your hard drive. However, this would mean a big overhead on the OS as it would need to load all the images which they may be hundreds or thousands of images will also be difficult to find anyone image. So we need to partition images into a set of folders which have some logical order. Some DAM systems simply use a number sequence for all the images.

My preferred option for a simple image archive would be to store them by date. The folder structure to store them by date, would be something like the following: The first folder would be the year, that the image was taken. The second folder would be the date which normally would be year-month-day then finally the images go in the day folder. The top level being a year and only be a small number of folders, the next level being days would then be a total of 365 or 364. if everything being equal the likelihood of having a huge volume of images shot on one day would be unlikely. So again hopefully the images will be stored in manageable sized folders.

There are other reasons for using date is a consistent way of storing images.

1. Almost all images have EXIF data contained within the image which the date it was taken would be part of that data.
2. You normally would know when you took an image roughly.
3. Providing you update your archive regularly the archive would expand in date order.

The subject of file **naming**

Digital cameras generate large numbers of files with similar or identical names. These generally follow the DCF standard that is specification from JEITA. These can be unique however they tend not to be consistent. Camera manufacturer tends to follow these standards in a slightly different way

A Consistent file naming system is one of the decisions you need to make in setting up your archive. It is important once you start using a method of naming files that you have a system that you can use a long time and it is consistent.

The renaming of files normally relates to the original image. Copies original image usually or have the same file name with some additional extension to the original name. I personally use a number within square brackets at the end of the filename but before the extension. The following sections describe common methods of renaming files I hope these may be useful to in deciding which would be most applicable yourself.

Each method follows standard set of rules begin with by setting up some of the rules.

1. Each image should have unique filenames within your archive.
2. Each filename should have extension of the file type normally will be a three letter extension starts with a period. This is standard practice operating systems.
3. File names should not be longer than 30 characters. This again is standard practice within computer systems. Long filenames can become unwieldy in addition some file systems have limits on filename sizes and path sizes.
4. The only punctuation within filename should be underscores and dashes.
5. Naming system should be a regular format and universally applied. What that means is once you have chosen format of all of the images within the archive then all those images should be applied in the same way.
6. A method of uniqueness. All images need to be unique within the archive. Two common methods of doing this are to have the date that the image was taken within the filename or a unique number which could be a sequence number which is incremented as each new image is added to the archive. Alternatively the combination of the sequence number that is applied to a day so part of the filename contains the date images taken the second part the sequence number which runs over that date.
7. Optionally may incorporate your name or initials to identify image to be yours. Alternatively some other identifying mark. Should be short should not too greatly effect the overall regular format of the file naming system.

however if you keep your files in a daily folder providing the unique within the folder may not need to be renamed

Metadata

Meta data is a word to describe the information that would accompany each image

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[**Edit**](https://github.com/idksoftware/SimpleArchive/wiki/DAM-Notes/_edit) [**New Page**](https://github.com/idksoftware/SimpleArchive/wiki/_new)

Iain Ferguson edited this page on May 24 2016 · [1 revision](https://github.com/idksoftware/SimpleArchive/wiki/DAM-Notes/_history)

Digital asset management (DAM) consists of management tasks and decisions surrounding the ingestion, annotation, cataloguing, storage, retrieval and distribution of digital assets i.e. digital photographs. In essence Digital asset Management refers to every part of digital photography after the photograph is captured and is stored in the camera. The process that follows is some form of digital asset management. This amounts to the protocol for downloading, renaming, backing up, rating, grouping, and archiving, optimizing, maintaining, thinning, and exporting files. To expand further, the protocol defines the process or processes of how the digital assets are managed post shooting. Note, animations, videos and music are samples of media asset management are a sub-category of DAM. Media Asset Management (MAM) Your DAM system is the way your images are known to you and possibly everyone else. The question is, is your DAM system enabling you to find your pictures easily when you need them. Are you using your time effectively in managing your pictures. Are you making the most out of your pictures. All these questions are dealt with, within the DAM practices. An Overview of the DAM system The DAM system consists of the following: The definition of an asset? My way of thinking, from the point of view of a photographic image is: an asset is the raw photograph in the camera; this may have incurred considerable cost to capture. Therefore may be a costly asset that needs management in order to manage this asset so to gain maximum return on that investment. In the IT and media world there are two widely accepted definitions for assets, both of which aren’t completely satisfactory. Both agree that a digital asset includes a digital file, but one definition says an asset is a digital file plus the rights to use it, which is fine, if you are the photographer, and the other definition states that an asset is a digital file plus a description of it. The so-called metadata. The first definition (asset \_ file \_ rights) is more widely used in the context of assets that have a certain value on their own. For example, think of an MP3 file of a song from your favourite band. From a business perspective, it is useless as long as you don’t have the right to do something with it—i.e., use it in a movie you make, sample it in your own song, or Anyone who has taken The case for Return On Investment (ROI) Since the implementation of a DAM system will not go unnoticed in the budget, it is often necessary to make a strong case to those in charge. Listing the benefits previously given is often enough, since virtually everyone who is familiar with real-life productions will realize the associated business value. But, especially in large corporations, it is usually required to prove the dollar value benefit before a decision concerning the introduction of a big system is made. For this purpose, Return On Investment (ROI) is a widely accepted tool, but it has its limitations for Digital Asset Management; DAM is often used to aid the work of creative teams, and they are not only reluctant to let their work be measured in dollar values out of principle, but often it is impossible to even do so. How much value is created exactly when a digital artist polishes his 3D model a bit more so that everyone says “Wow, this is a great improvement, it looks really cool now!”, and the praise makes the artist actually look forward to coming to work tomorrow morning? Therefore, it might make more sense to identify the strongest overall arguments for why the implementation of a DAM system is worth it. Ideas are listed in the previous section, “Benefits for different departments”. If you nevertheless have to create an ROI calculation, take the five benefits mentioned there as a basis to assess the financial potential and use the examples that follow to get you started. In addition, reports from market research firms like Gistics (see Appendix 3) can be a great help. Some additional points you might consider including in your calculation are also found in the following section.

Understanding Digital Asset Management Software browsers v cataloguers browsers will read the whole image held the normally a flat folder system and display that image by processing it on the fly. So any resizing will be carried out during that processing, This will cause a great deal of time if a large number of images are to be displayed. this time is increased further if the images are to be downloaded over the network. cataloguers’ however store the original image in a number of image sizes so if a list of thumbnail images are to be displayed then only the thumbnail size images will be downloaded and displayed. The disadvantages of a cataloguer is that it may double the size of the image stored. This is not seen as to greater problem as hard disks and DVDs are cheap.

This chapter is a short, casual introduction to Subversion. If you're new to version control, this chapter is definitely for you. We begin with a discussion of general version control concepts, work our way into the specific ideas behind Subversion, and show some simple examples of Subversion in use. Even though the examples in this chapter show people sharing collections of programsource code, keep in mind that Subversion can manage any sort of file collection—it's not limited to helping computer programmers. How Image Archive fits-in The rationale behind image archive. In image archive was designed to be as simple as possible and use technologies that are robust

Introducion many so called DAM software provides a nice graphical interface and enables editing of metadata and allow the creation of catalogs etc but puts all the images into one folder so file handling is difficult to manage. Image achieve uses partitions to hold images but allows you to access the the images as if the partition didn't exist. When it comes to managing the images held, having them in a set of partitions helps a great deal