THE AUSTIN SHUTTERBUG

Backing up Digital Image Files

What is backing up digital files?

Digital photograph files are a non-tangible entity, a digital data file, living insecurely in the ether of ones and zeros in a computer storage system. No longer do we have a shoe box or file drawer of negatives, prints or color slides. Therefore, we must house our files in a place that is easy to access, readily retrievable, and safe.

Tangible photographs, including negatives, prints and slides are no longer a part of digital photography. Shoe boxes and file drawers full of photos are a thing of the past. Today. we must safely store digital image files where they may be organized, accessed and protected. Such is just one job of today's digital photographer.

To achieve a storage system that meets these criteria requires some thought, planning, and a bit of monetary outlay.

Today's planners and designers of most modern computer operating systems do not do the serious photographer any favors. Operating systems like Windows, and Apple iOS are designed around the principle of a single computer operating system drive whether a hard, spinning disk drive (HDD), or a solid-state drive (SSD), or a hybrid of both, like a fusion drive.

We must understand these components are electronic, some with mechanical components. Within the computer system, the drive with the operating system is operating full time when the computer is turned on. Electromechanical drives are spinning all the time. It's understandable that these components will fail. Solid-state SSDs are vulnerable to component failure by detrimental heat.

Failure will happen. It's not if -- but when.

So, if all our photographs are on our computers operating system (op-sys) drive, and we have only one --like most photo enthusiasts-- our images will be lost with the failed drive. Therefore, we must put our photographic images somewhere else that is safe. That's the first step. The second step is even more important, that is making a duplicate of every photo in a second place for safety through redundancy. That's backing up!

In an ideal situation, the op-sys drive should contain only the operating system itself plus other software such as the photo editing software and so on. Everything else including, photos, financial and medical files and all other personal files must be kept elsewhere.

There are several ways to do this. Some photographers have multiple drives installed within their computer cabinet. This is a good idea at the time of computer purchase, or at the time of its assembly. This generally requires a larger case or cabinet and lots of fans to move air for cooling- the detrimental foe of electronics. Given the physical space and electronic capability, additional drives may be added at a later time.

The use of additional drives requires not only initial planning for installation, but a serious thought toward file organization. This is food for a later discussion.

Several electronic portable drives are a simple, cost-effective manner of storing images off of the computer operating system drive. Over time, the file data may grow quite large. Organizing and securing the data is a more complicated task when using such a bunch of drives.

The alternative plan used most frequently is the use of external electronic drives, or portable drives. Today, these drives have become very inexpensive and create a low-cost solution to the storage issue. These drives may be arranged in many combinations. One at a time, a group plugged in all at once, or in a redundant array configuration. There are many common solutions. However, that requires a reasonable plan.

The 3-2-1 backup plan

Serious photographers who are conscientious about their work carefully store, safeguard, and backup all their images. As we have seen, there are several ways to do this and additional variations on each system. Regardless of the system that is used, you should have a thoughtful plan in place that will provide you the comfort in the safety of your work and your legacy. A workable plan is outlined below:

1. **Have at least 3 copies of your data** Having three copies of data means that the first one would be your actual data, wherever they reside. The other replicas (redundant clones, or mirror images) will provide for high availability and redundancy, since the more replicas you have, the more chances to keep the data safe.

2. **Keep these backups on 2 different media** You should keep the data in two different formats, for one format outlives the other. For example, disks from the same RAID are statistically dependent, and often, after one disk failure, you might experience the failure of another disk from the same storage in a short period (often because the devices are of the same age). Using different formats reduces the risks that all your backups will be damaged, as different formats have different strengths and weaknesses when it comes to redundancy.

3. **Store 1 backup offsite** It is understandable that a big disaster like an earthquake, fire or another unpleasant event will destroy buildings, and even data centers may burn down resulting in powerful data loss. It is the reason why considering offsite data backups comes into view. Offsite means as FAR AWAY as possible, in another city, state, country or even continent. Your data is safe then, even if there is a fire or national disaster.

There are many ways and solutions to accomplish this 3-aspect task, be they software or hardware. Backup process should be set as far from manual interaction as possible to avoid human error. It is highly recommended to run backup jobs on a regular basis and scale (weekly, monthly backups, etc.) to be able to restore from the most recent and consistent one.

Article by Brian Loflin, President
Austin Shutterbug Club

Volunteers needed for the following three categories:

1. **Newsletter editor**;

2. **Refreshments**. John Davis needs volunteers to help set up the table AND take it down and;

3. **Programs, field trips, and workshops**. Someone to help coordinate these events.

If you feel lead to volunteer in one of these capacities, please email Barbara Hunley at austinshutterbug@gmail.com

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We don't learn from our good images; we learn from the ones that can be improved on.

- Jen Rozenbaum -

NEXT MEETING DATE!

Visitors welcome!

We are on Facebook!

Thursday, November 3, 2022

7:00pm

Northwest Recreation Center

2913 Northland Dr, Austin, TX 78757

Image Submission for <u>Evaluation</u> and <u>Critique</u> - December 1, 2022

<u>Assignment</u> - *Holiday Images from **ANY HOLIDAY!!***

Holiday Images – color or monochrome, taken at any time

1st image: – Large scale demonstration or illustration of **ANY holiday**! (be creative)

2nd image: – An intimate detail shot illustrating the same holiday theme. The second image may be taken of a different scene or object, if desired, as long as it depicts the same holiday.

OR

<u>General</u>:

Any 1 or 2 images of your choosing that you have taken at any time and any place

Email all submissions to sdhouston360@hotmail.com by Sunday night 9 PM before the Thursday meeting.

(Remember: Do <u>NOT</u>submit images to the "Austin Shutterbug Club" email address)

1. Include <u>in your email</u> the **<u>Title</u>** you gave each image and the **<u>location</u>** where it was taken.

2. Images need to be   **JPG format**
sRGB
1400 pixels on the longest side
300 ppi

3. Rename each image with your name & date of meeting followed by A or B.

<u>Examples</u>:

First image – Stevehouston12_22A   "Big Bend Vista"   Big Bend, Tx

Second (closeup) image – Stevehouston12_22B   "Big Bend Cactus Bud"   Big Bend, Tx

Questions ?? Call, text or email

Steve Houston 512-413-5218

Sdhouston360@hotmail.com

<u>Remaining Shutterbug Meeting Dates for 2022</u>

November 3   What can make this photo GREAT — Brian Loflin and Phil Charlton

December 1   Assignment — Any Holiday