

How to Avoid Losing Your Digital Photographs



Agenda



Finding Your Photos



Sharing Your Photos



External Portable Hard Drive



Internet Cloud Storage Services



Everyday Tips

Presentation

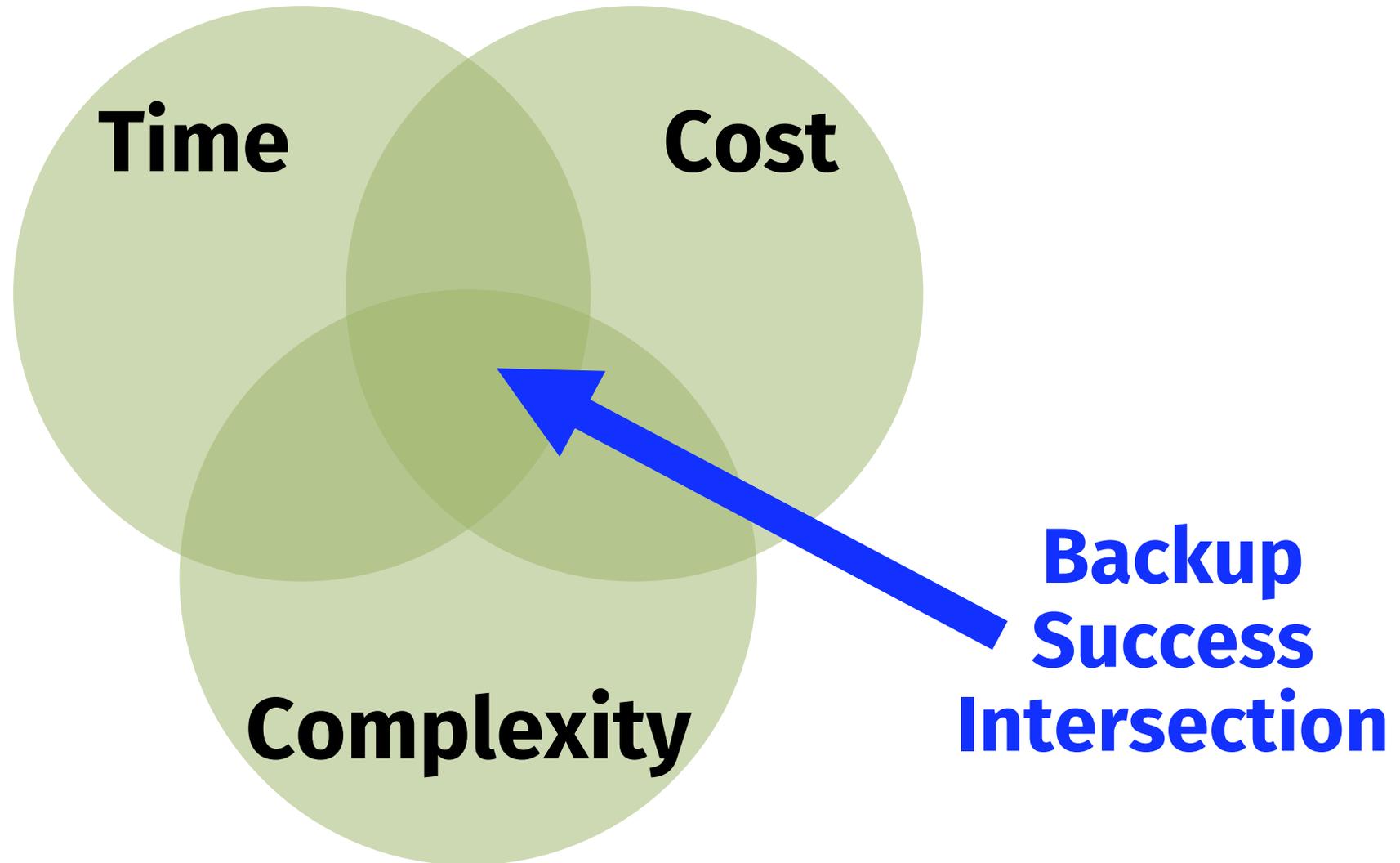
ccullens.com/backup

Chane Cullens
Chane@CCullens.com

February 1, 2023
Simsbury Camera Club

Why Don't We Backup Enough?

Backing up photos is preserving memories



Preserving Memories Facts

Your digital memories can disappear in the blink of an eye - hardware failures, loss & disaster

Fact 1

- There are many “right ways”

Fact 2

- Backup is an “ongoing” activity, not a “one-time” activity

Fact 3

- The longer you ignore backup, the worse the loss will be

Agenda



Finding Your Photos



Sharing Your Photos



External Portable Hard Drive



Internet Cloud Storage Services



Everyday Tips

Agenda



Finding Your Photos



Sharing Your Photos



External Portable Hard Drive



Internet Cloud Storage Services



Everyday Tips

Photos Exist in Many Forms



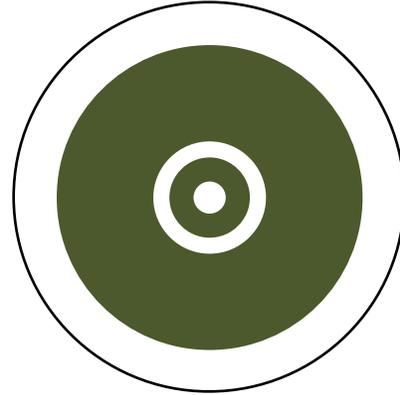
Historical

- Prints, Negatives, Slides – Need converted to digital



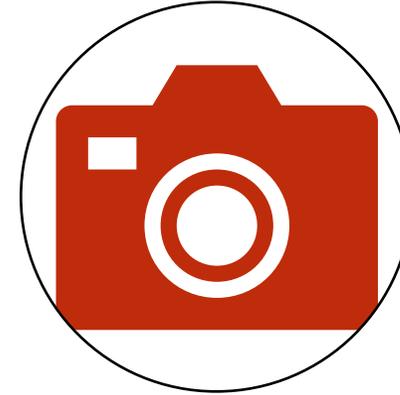
Printed

- Prints, framed photos, holiday cards, books



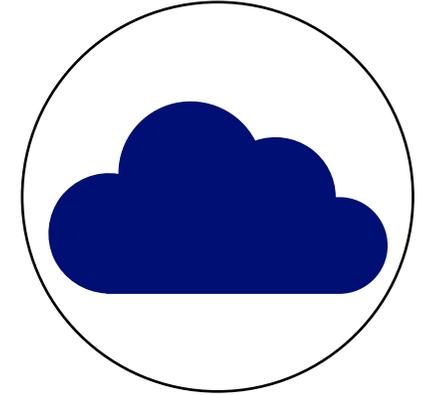
Optical

- CD, DVD, Blu-ray



Camera & Computer

- Camera memory cards, USB flash drives, internal & external drives



Cloud

- Over the internet somewhere in the “cloud”
- Does your phone save to the cloud?





Finding Your Photos

Consistency reduces the complexity of finding a photo - location, organization style & labeling

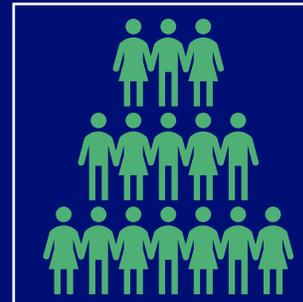
Consistent Digital Archive Location

You must know where to look to find photos



Location, Location, Location ... Jo's computer, Blue external drive, ...

Tell others the location



More than 1 location is good, more than 3 locations does not work

Consistent Organizational Style

Organization Hint

1. By date
2. With descriptive titles

Year

- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016

Month

- 01 January
- 02 February
- 03 March
- 04 April
- 05 May
- 06 June
- 07 July
- 08 August
- 09 September
- 10 October
- 11 November
- 12 December

Day

- 2019 08 01 Mt Hood and Trillium Lake Kayaking
- 2019 08 02 Gladstone Multi Class Reunion
- 2019 08 02 Lunch at Gustav's with Carleen and Candi
- 2019 08 03 Deschutes Co Fair and Arriving at Sunriver
- 2019 08 04 Deschutes Co Fair - 1 Arriving and Dogs...
- 2019 08 04 Deschutes Co Fair - 2 Connie's Horses
- 2019 08 04 Deschutes Co Fair - 3 Food and Exhibits
- 2019 08 04 Sunriver Buck and First Night Dinner
- 2019 08 05 Sunriver Canoeing
- 2019 08 06 Sunriver Bocci Ball and Pool
- 2019 08 07 Hiking at Doris Lake and Elk Lake
- 2019 08 08 Sunriver Bike Ride and Ticket to Ride
- 2019 08 09 Sunriver Bike Ride, Deer and Art Show

`\2019\08 August\2019 08 01 Mt Hood and Trillium Lake Kayaking`

Year

Month

Day

🔄 🔍 name:lake

Name

- 📁 2019 02 01 Watson Lake
- 📁 2019 08 01 Mt Hood and Trillium Lake Kayaking
- 📁 2019 08 07 Hiking at Doris Lake and Elk Lake

- 📁 01 January
- 📁 02 February
- 📁 03 March
- 📁 04 April
- 📁 05 May
- 📁 06 June
- 📁 07 July
- 📁 08 August
- 📁 09 September
- 📁 10 October
- 📁 11 November
- 📁 12 December

- 📁 2019 08 01 Mt Hood and Trillium Lake Kayaking
- 📁 2019 08 02 Gladstone Multi Class Reunion
- 📁 2019 08 02 Lunch at Gustav's with Carleen and Candi
- 📁 2019 08 03 Deschutes Co Fair and Arriving at Sunriver
- 📁 2019 08 04 Deschutes Co Fair - 1 Arriving and Dogs...
- 📁 2019 08 04 Deschutes Co Fair - 2 Connie's Horses
- 📁 2019 08 04 Deschutes Co Fair - 3 Food and Exhibits
- 📁 2019 08 04 Sunriver Buck and First Night Dinner
- 📁 2019 08 05 Sunriver Canoeing
- 📁 2019 08 06 Sunriver Bocci Ball and Pool
- 📁 2019 08 07 Hiking at Doris Lake and Elk Lake
- 📁 2019 08 08 Sunriver Bike Ride and Ticket to Ride
- 📁 2019 08 09 Sunriver Bike Ride, Deer and Art Show

- 📁 2015
- 📁 2016

Organization Hint

1. By date
2. With descriptive titles

`\2019\08 August\2019 08 01 Mt Hood and Trillium Lake Kayaking`

What is Metadata?

Information stored inside a photo that is not visible when viewing the photo

Description	Hoi An Old Town
City	Hoi An
State	South Central Coast
Country	Vietnam
Keywords	Bridge, Cityscape
Credit	Chane & Rhonda Cullens
Creator Work Email	Chane@CCullens.com
Creator Work URL	www.ccullens.com
Aperture Value	1.8
Exposure Time	1/13
Date/Time Original	2019:05:11...
GPS Latitude	15 deg 52' 35.55" N
GPS Longitude	108 deg 19' 36.76" E
... plus 100 other items	
... varies by camera and download software	

Always add as part of download

Seldom, Editing activity

Camera

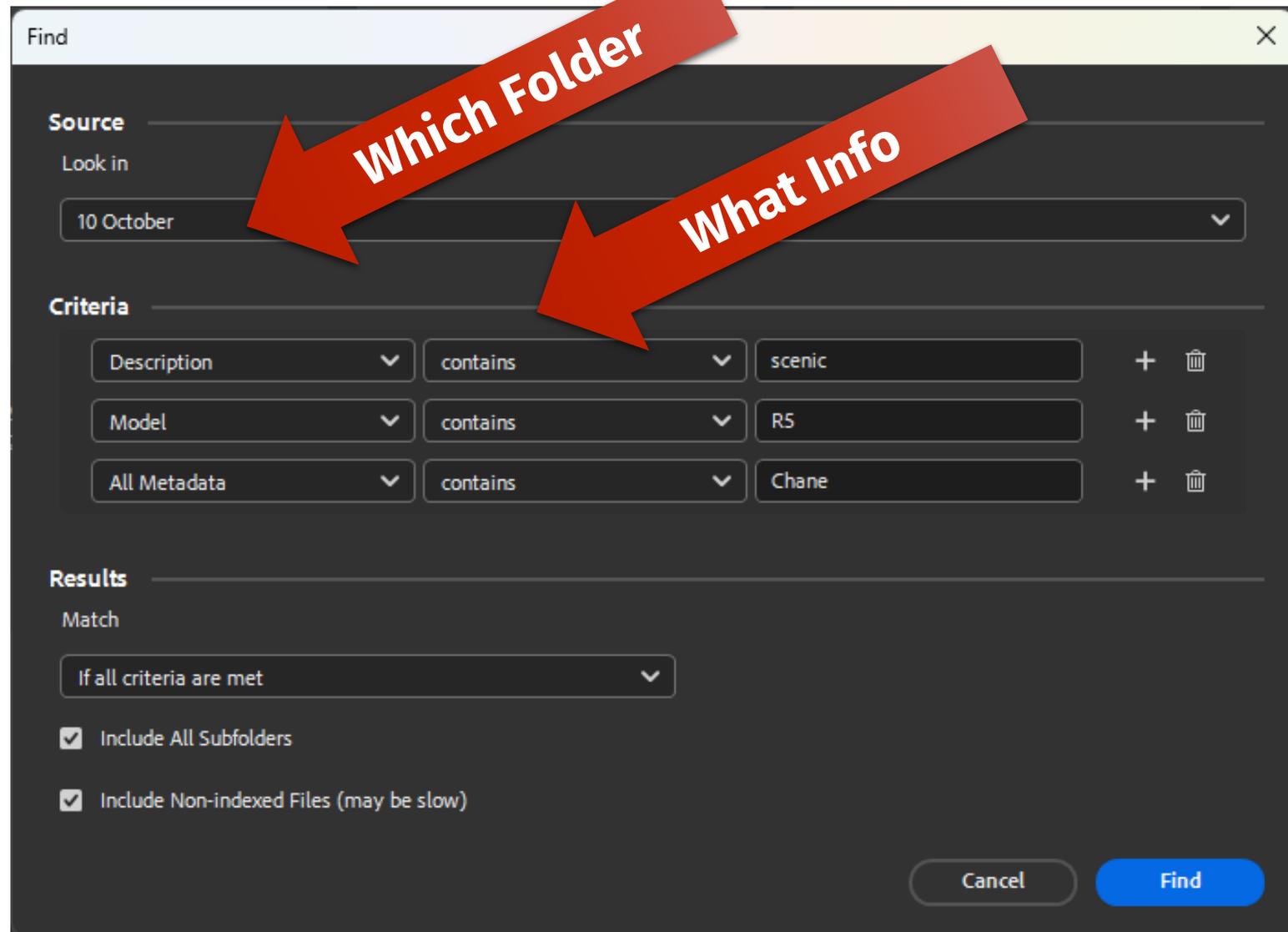
Description	Hoi An Old Town
City	Hoi An
State	South Central Coast
Country	Vietnam
Keywords	Bridge, Cityscape
Credit	Chane & Rhonda Cullens
Creator Work Email	Chane@CCullens.com
Creator Work URL	www.ccullens.com
Aperture Value	1.8
Exposure Time	1/13
Date/Time Original	2019:05:11...
GPS Latitude	15 deg 52' 35.55" N
GPS Longitude	108 deg 19' 36.76" E

... plus 100 other items

... varies by camera and download software

Consistent Metadata Style

Helps when searching for specific photos



Adobe Bridge – an app in the Adobe Photography Plan

Agenda



Finding Your Photos



Sharing Your Photos



External Portable Hard Drive



Internet Cloud Storage Services



Everyday Tips

Printing as Backup

**Sharing them with friends
and family provides “offsite”
backup**

Photos 4x6, 5x7 ...
Books, Calendars ...
Framed
Exhibits
Donations



Camera Club as Backup

Competitions

- Club, Interclub, NECCC
- Digital and print

Exhibits

- Prints

Club Website



Social Media

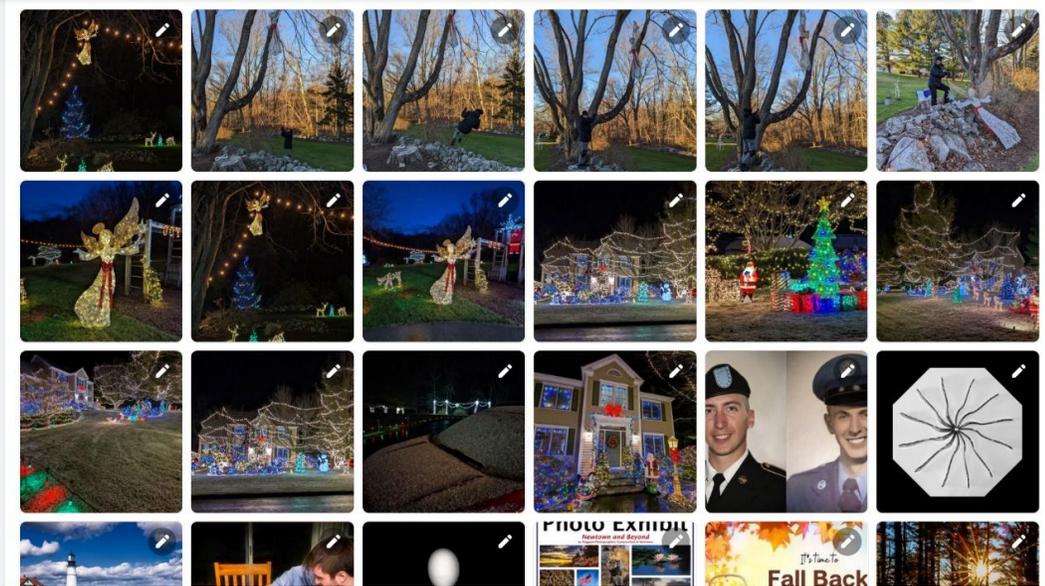
A great free passive
preservation method

Facebook
Instagram
Twitter ...

facebook



27,048 photos as of Nov 2022



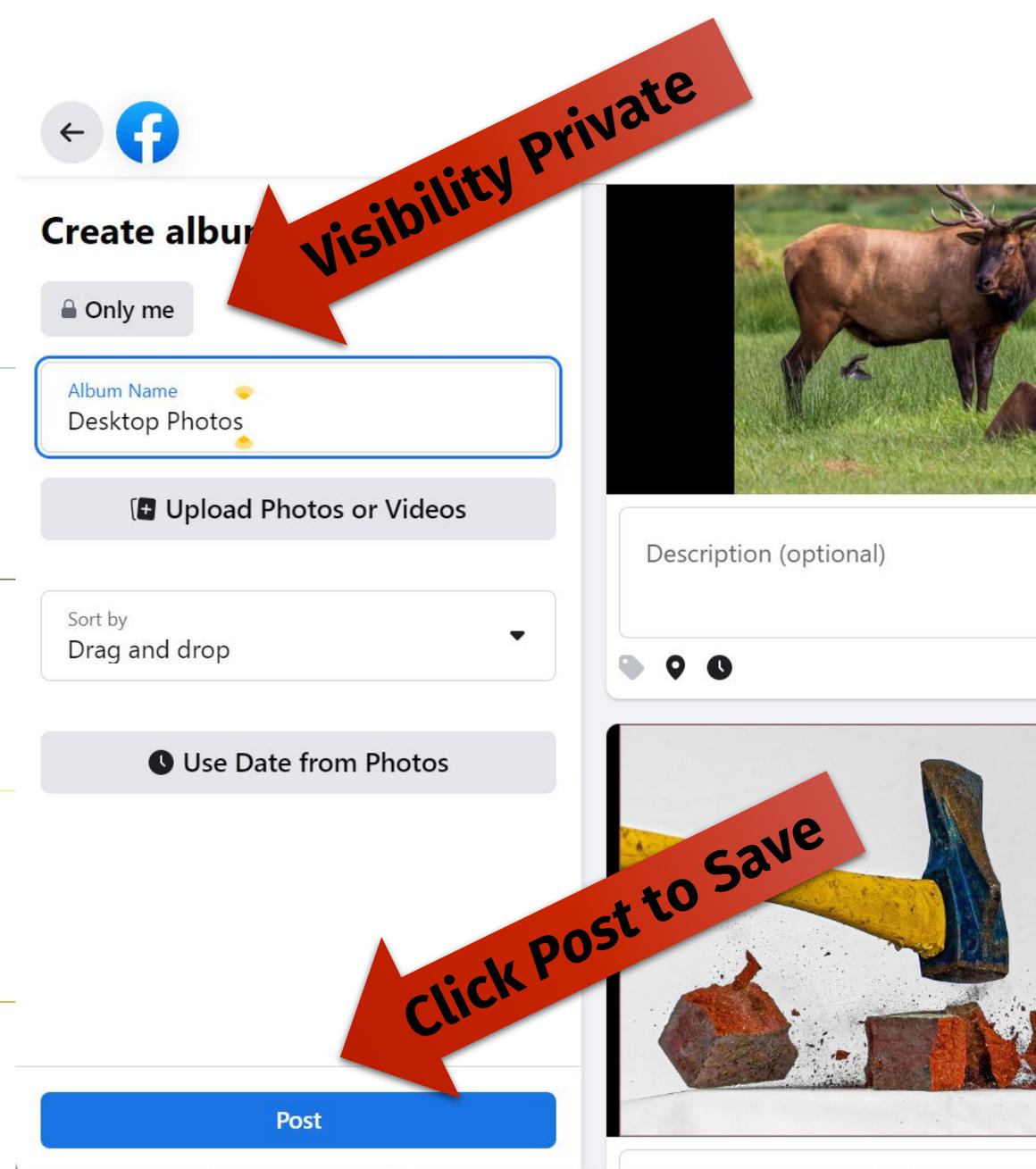
A Good Free Archive

Private Facebook Albums

1,000 photos per album

JPEG files

Photo quality good
(2000 x 2000 pixels)



Agenda



Finding Your Photos



Sharing Your Photos



External Portable Hard Drive



Internet Cloud Storage Services



Everyday Tips

Who Has an External Hard Drive?



Works with any computer

Lots of space for \$100 → 4TB

- 100,000 RAW or 500,000 JPG

Lasts 3+ years with everyday use

Lasts 10+ years in storage

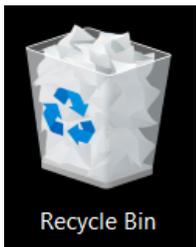
Most include backup software

Semi-fragile

Technology Tip

Deleted or Missing Files are often recoverable!

1



Look in Trash

2

Corrupted Drive. The most common loss is when the “index” to files has been damaged. Software may find files even when the “index” is missing. Search for tools online.

External Hard Drive

Many size options - 1TB to 100TB+

- ✓ Cheap
- ✓ Effective
- ✓ Works on any PC
- ✓ A great choice



↑
Great



↑
Expensive

How Much Storage?

Purchasing a hard drive

1

Find your total photo storage size by adding current photo storage – cards, flash drives, internal and external drives ...

2

Buy a new drive **twice** as large for several years of new photos





Where to Start?

How to use your new storage

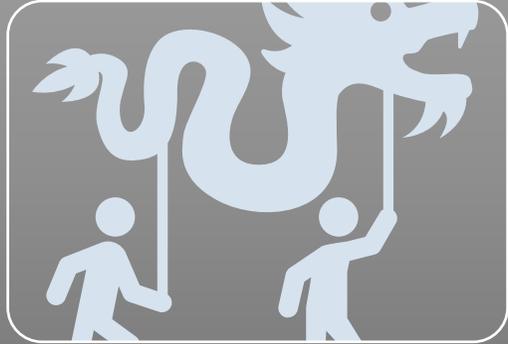
Determine your organization style, date, folder naming ...

Use for all new photos you download

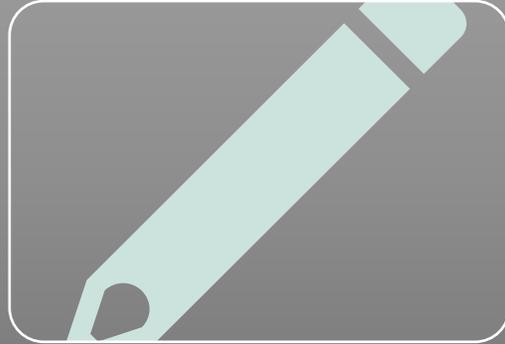
After using for a month, move last year's photos to new organization style

Repeat Every Month

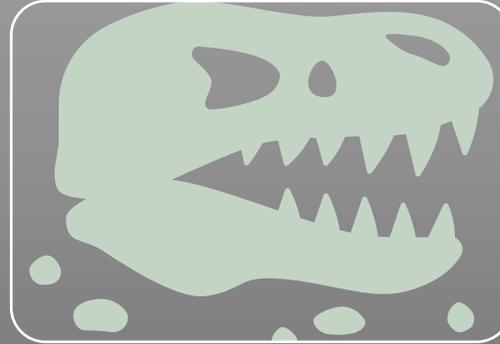
Backing up is a never-ending activity



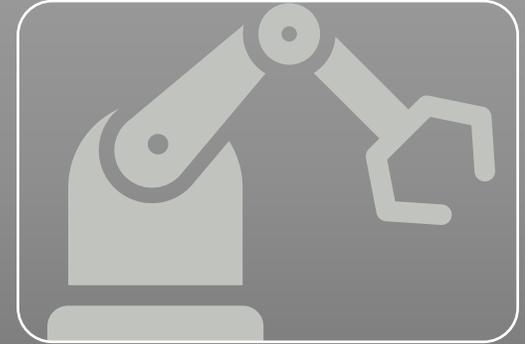
Copy **photos** to the external drive



Also, copy any **edited** photos you may have stored elsewhere



Organizing and copying a **new group** of old photos



Look for ways to **automate** a step

Consider! While organizing each month, delete external & copy all

After 4 Years

Buy another external drive



Copy the **old** hard drive to the **new** hard drive



Store the **old** drive, just in case something fails



Use the **new** hard drive for your backups

Extra Effort Tip

Fire, Flood, Disaster ...

1. A couple of times a year
2. Make a copy of your external drive
3. Give the copy to a person in another location
4. No password

Agenda



Finding Your Photos



Sharing Your Photos



External Portable Hard Drive



Internet Cloud Storage Services



Everyday Tips

What Is the “Cloud”?

A bunch of computers accessed using the internet.



The 18 Facebook data centers are a type of “Cloud”

Data centers are physical buildings filled with computers!
As users of the ‘cloud’, we generally don’t know or care where they are located.

How big is a data center?

Let’s use Facebook’s Oregon data center.

Is it bigger than a football field?

It’s the size of 80 football fields!

Cloud Backup Services

Some space “Free”, with purchase more space when needed

Microsoft
OneDrive

Apple iCloud

Google Drive

Dropbox

Adobe
Creative
Cloud

Amazon
Photos

Amazon Prime

These are the big players. There are dozens of more choices.

All have software for Windows, macOS, iOS & Android

How to Choose a Cloud Backup Service

Questions to ask yourself

1

Is your internet speed slow?

Then avoid cloud backup.

2

Does the free tier have enough space?

Decide your space needs and costs.

3

Is it OK to leave your PC online for days?

When starting it takes weeks on a fast internet.

4

Does it also work on your phone?

Simplicity is important.

External Drive Backup or Cloud Backup?

Tradeoffs

	External Drive	Cloud
Security	Physical security <small>Don't encrypt</small>	Password protected <small>Share password</small>
Availability	You must have the drive	Anywhere using internet
Cost	One-time purchase	Annual purchase (higher)
Failure	New drive every 4 years	No data loss expected
Complexity	Low	Low to Medium
Time	Keep it simple	Keep it simple

Agenda



Finding Your Photos



Sharing Your Photos



External Portable Hard Drive



Internet Cloud Storage Services



Everyday Tips

Backup 3-2-1 Rule

Introduced by photographer Peter Krogh in 2005. Examples by Chane Cullens.

3: Create one primary backup and two copies of your data.

- PC drive
- External drive
- Safety Deposit Box, Friends house, Office or Cloud

2: Save your backups to two different types of media.

- PC drives
- External drives or Cloud

1: Keep at least one backup file offsite.

- Safety Deposit Box, Friends house, Office or Cloud

Consider

PC drive, once a month - to external drive, once a quarter - copy external drive and move offsite

①

②

③

Multiple computers with multiple hard drives, plus cloud

Don't do it!

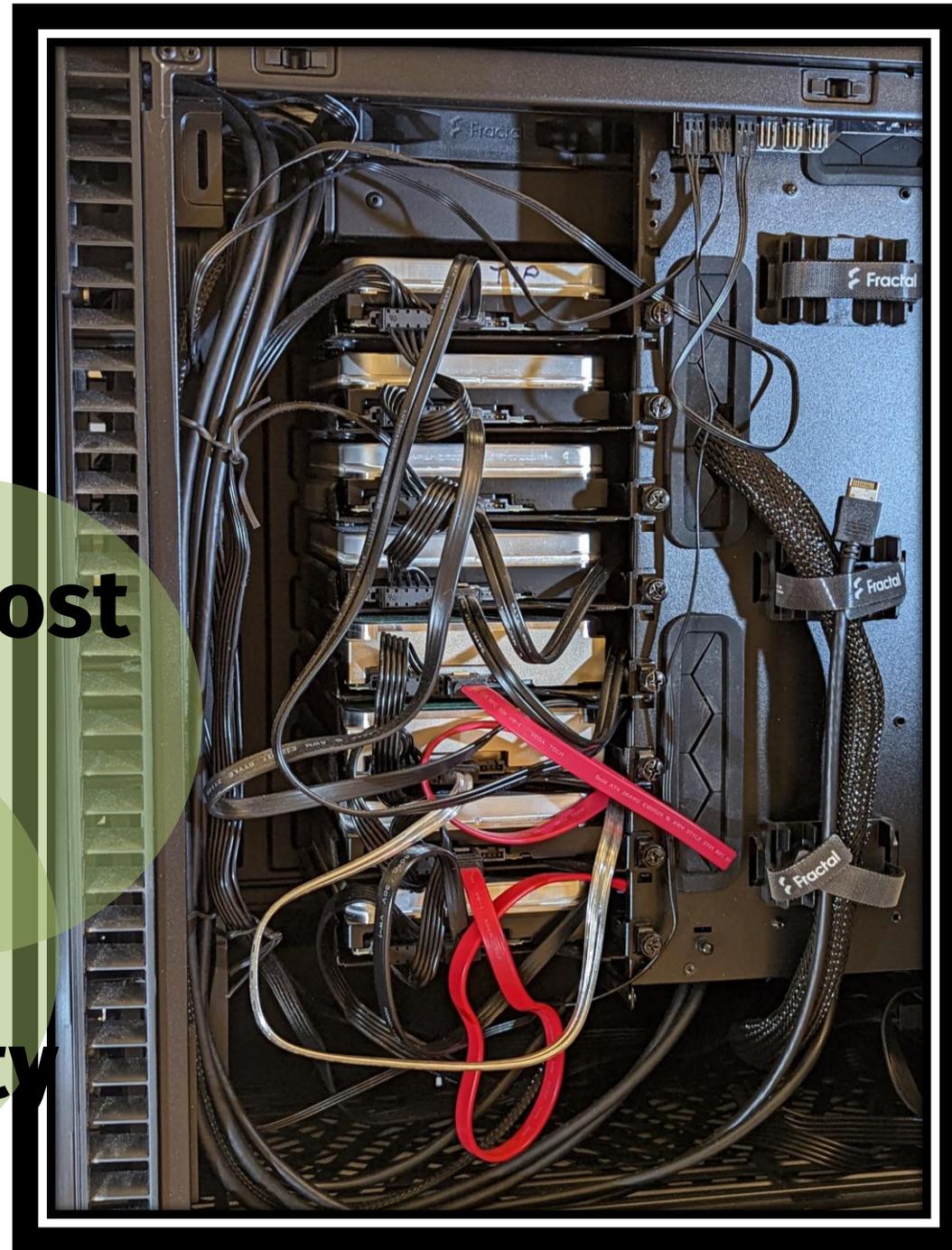
Seriously, only do it if you already know how

High in Time, Cost and Complexity

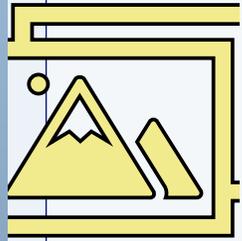
Time

Cost

Complexity



Amazon Photos Tip



Unlimited Photos

- JPEG, RAW, Photoshop, DNG ... original photos



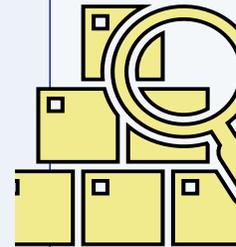
Free **if** Prime Member

- Prime membership \$140 a year



Private Cloud Archive

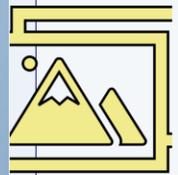
- Option to share parts



Amazing Search

- People, Place, Things ...

Amazon – Unlimited Photos



Unlimited Photos

- JPEG, RAW, Photoshop, DNG ...

924,186 photos

Uploaded by Chane as of February 1, 2023.

Many years of uploading!

Runs in the background on a PC with a shared view that Rhonda and I both use.



924,186

Photos backed up

Amazon – Search



Amazing Search

- People, Place, Things ...

Search “Rhonda” and “Chane”

Amazon Photos found 4,200 photos that both of us are in.

Not perfect, but still amazing!

<https://www.amazon.com/photos>

The screenshot displays the Amazon Photos search interface. On the left, a 'Filters' sidebar includes sections for 'Media types' (Photos: 4.2k), 'Date Taken' (2022: 161, 2021: 282, 2020: 94, 2019: 338, 2018: 118), 'Things' (Plant: 675, Tree: 414, Food: 303, Water: 218, Sunglasses: 213), and 'People' (Rhonda: 4.2k, Chane: 4.2k, Chad: 1.2k). The main area shows search results sorted by 'date taken'. Three photo groups are visible: 'Oct 9 — 4 items' (nighttime photos of two people), 'Aug 27 — 4 items' (daytime photos of a group of people at a table), and 'Aug 26 — 9 items' (daytime photos of people on a boat by a lake). Each group has a 'Share' button and a checkmark icon.

Amazon – Search



Amazing Search

- People, Place, Things ...

Search for Rhonda, Chane,
Food, Da Nang

Amazon Photos found 17
photos

<https://www.amazon.com/photos>

Filters

Sorted by date taken ▾

Media types

Share May 8, 2019 — 17 items

Photos 17

Date Taken

2019 17

Things

Food 17

Cafe 2

People

 Rhonda 17

 Chane 17

Places

Da Nang, V... 17



Free Facebook Option

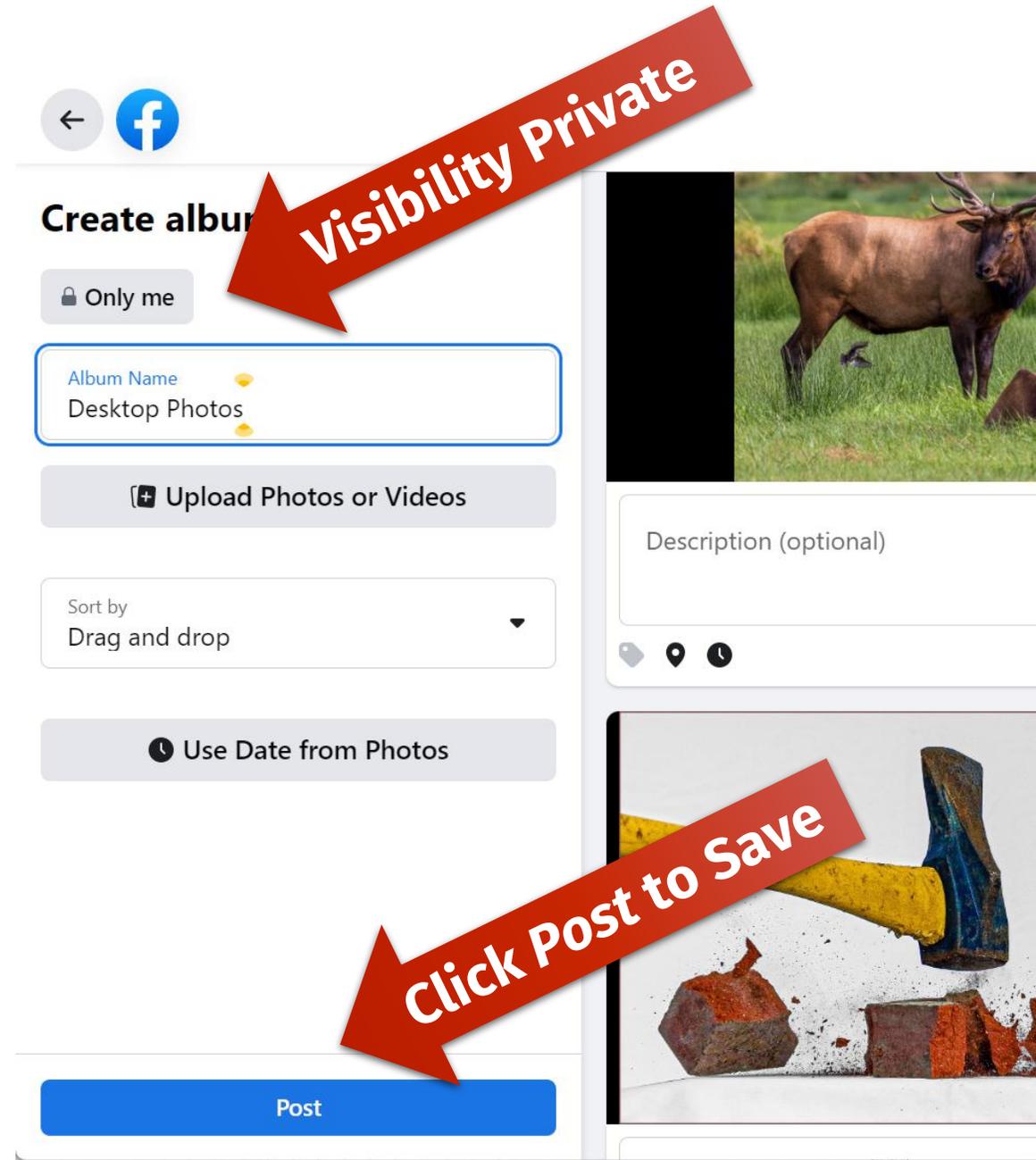
A Good Free Archive

Private Facebook albums

1,000 photos per album

JPEG files

Archive quality good
(2000 x 2000 pixels)



Visibility Private

Click Post to Save



Summary

Don't role the dice on your treasured photo archives

1

Plan

Start small, think big

2

Find

Gather the photos for the first small step

3

Backup

Organize by date with names that help searching. Then copy to external drive

4

Share

In many ways, friends, family, clubs, books, print ...

5

Expand

Add a new small group into your organized collection folders every month