



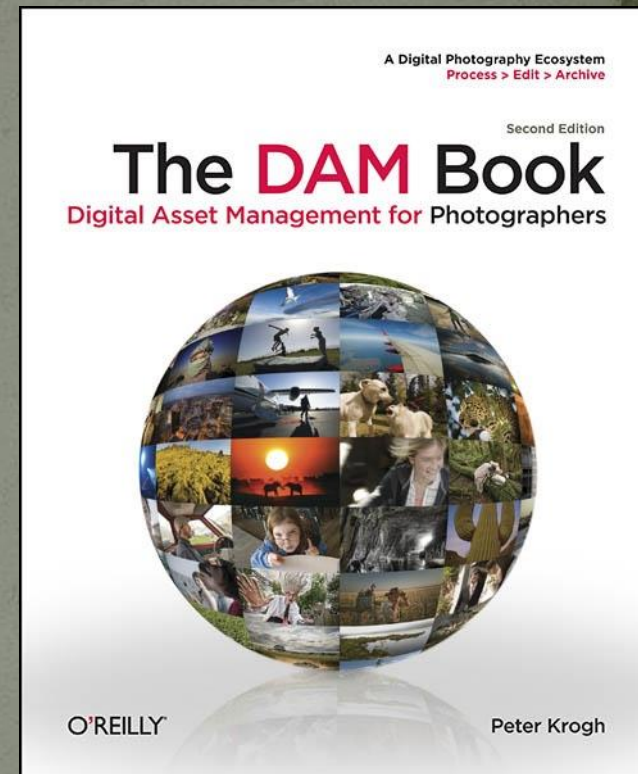
Beaumaris & Menai Bridge Camera Club

Where's that ***** Photograph?

Terry Hewitt
(terry@wthassociates.com)

Objectives

- To understand
 - How to organise photographs on your PC
 - What tools to use and why
- To enable you to locate photographs easily
 - Don't lose the photographs
- To ensure software & hardware independence
- To ensure longevity
- Create certainty around what you do



The DAM Book Guide to Multi-Catalog Workflow with Lightroom 5

A Multimedia eBook

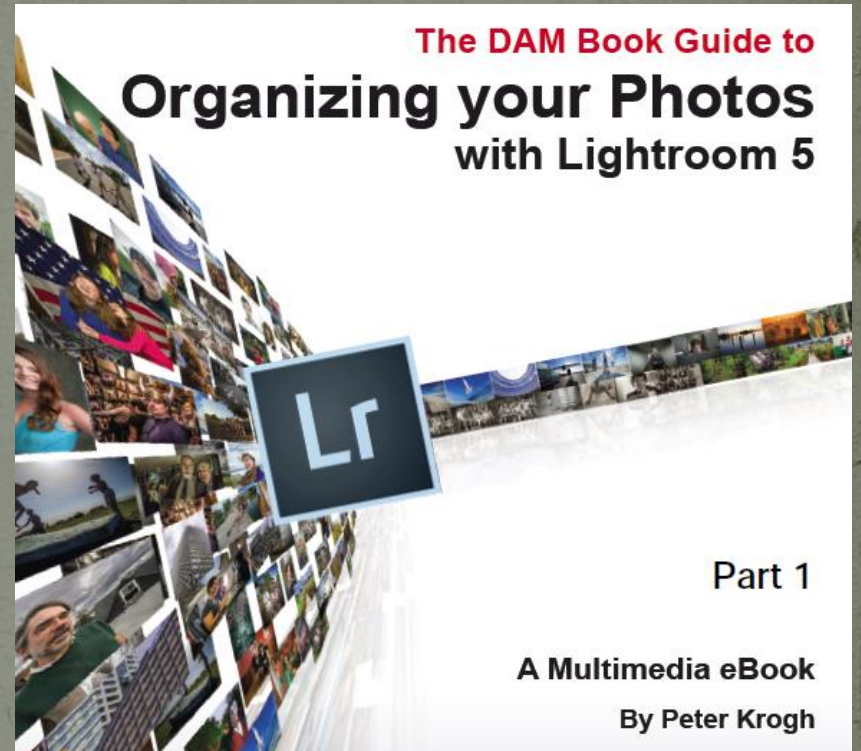
Text, Photos and Videos By Peter Krogh



The DAM Book Guide to Organizing your Photos with Lightroom 5

Part 1

A Multimedia eBook
By Peter Krogh



Who uses what?

- Windows XP
- Windows 7
- Windows 8
- MAC
- Linux
- Android/IOS Tablet
- Photoshop
- Photoshop Elements
- Lightroom
- Media Expression
- Photo Mechanic
- Aperture
- Nikon

- Canon
- Nikon
- Sony
- Film vs digital

Where's that ***** Photograph?



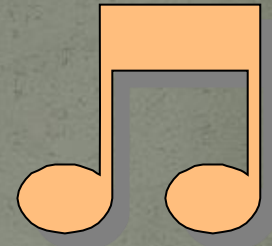
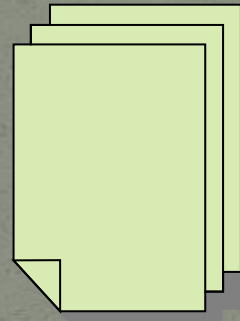
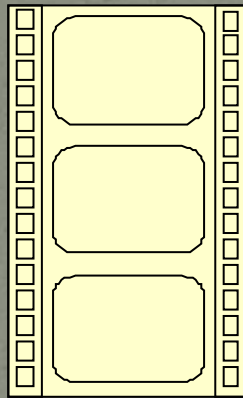
Agenda

- Digital Photography Ecosystem
- Metadata <- The key
- Browsers vs Catalogs
- Non-destructive Image Editing
 - Photoshop
- Organising & Naming Files/Folders
- Hardware for photograph Storage
- Backup

Applies to everything

- All the material in this presentation applies to
- ANYTHING STORED ON YOUR COMPUTER

- Photographs
- Emails
- Music
- Videos
- Documents



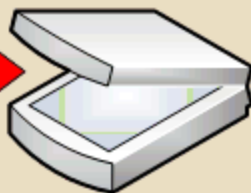
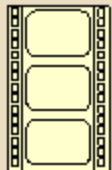
- Shopping lists, reports, minutes, agendas, newsletters ,...

- As my Mother said

Do as I say NOT as I do!

Digital Photography Ecosystem

SOURCES



COMPUTER

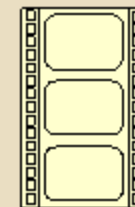


STORAGE



SOFTWARE

OUTPUTS



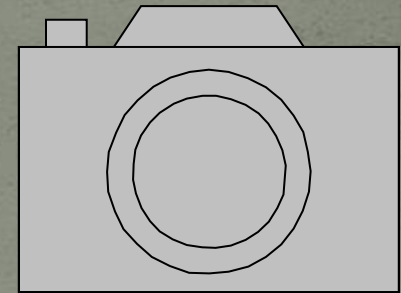
How many photographs do you have?

Number of Photographs		How many of you?
0-1,000		
1,000 – 10,000		
10,000 – 50,000		Me
50,000 -100,000		
100,000+		
1M+		
10M+		
Years with photographs on PC		How many of you?
1	2009	
1 -5	2005	
5 – 10	2000	
10 – 15	1995	
15-20	1990	Me
20+	1980	

How many
images
compared
with
negatives?

Benefits of Managing your Photographs

- Productivity
 - More time on Photography
 - Less time on IT
- Adds value to your Photographs
- Enhances longevity of your work
- Enables you to roll with technological change
 - Storage media
 - Operating Systems
 - File formats



Digital Asset Management (DAM)

Understanding the Data life cycle

- Ingestion
 - Photographs on to the Computer
- Working Files
 - Originals & Derivates
- Export (printing/slide shows/...)
- Archive

Backup



Where's that ***** Photograph?

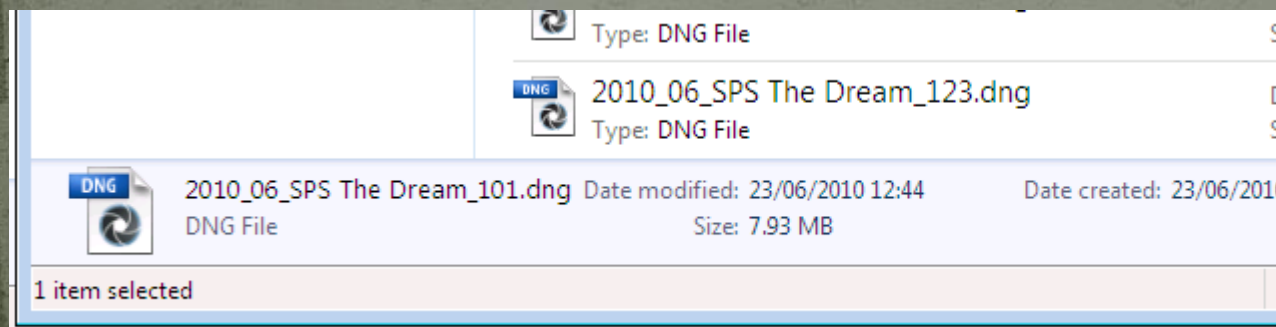
- What is it?
- Why is it important?
- Where is it stored?
- How do I use it?

Metadata

The key to getting more from your photos

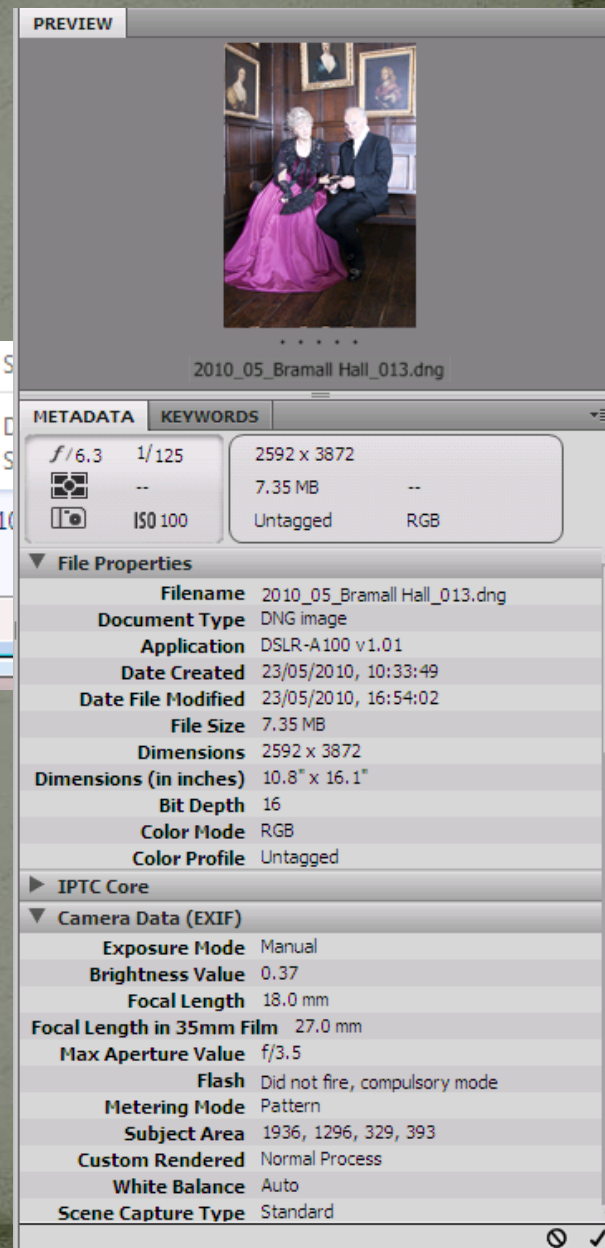
What is metadata?

- Data about photographs– duh!



- Type I : Automatically entered
 - Camera properties
 - Generated by the Camera
 - File properties
 - Generated by the Computer

Where's that ***** Photograph?



How Much Metadata?

Adobe DNG



JPEG



Where's that ***** Photograph?





Friday, 03 January 2014

15

Type II: Bulk Entry Data

- User supplied information
 - Typically SAME for many photographs
 - Typically easy & quick to apply to many photographs
- Typical
 - Name of Photographer
 - Name of shoot
 - Broad classification
 - “Personal”, “Holiday”, “Work”
 - Name of subjects/models
 - General project keywords:
 - Holiday, SPS Model Night, Padley Gorge, ...
 - Licence/Copyright

Where's that ***** Photograph?



Keywording

Keyword Tags

Gregynog

[Click here to add keywords](#)

Keyword Suggestions

Clare	Mow Cop	Vicky
SPS	Bramall Hall	Padley Gorge
Lucie	Stacy	Chivone

Keyword Set

Keyword List

+

Metadata

Preset

File Name	2010_06_Gregynog_024.dng
Metadata Status	Has been cha...
Contact	
Creator	W T Hewitt
Job Title	
Address	22 Derby Road, Heaton Moor
City	Stockport
State / Province	
Postal Code	SK4 4NF

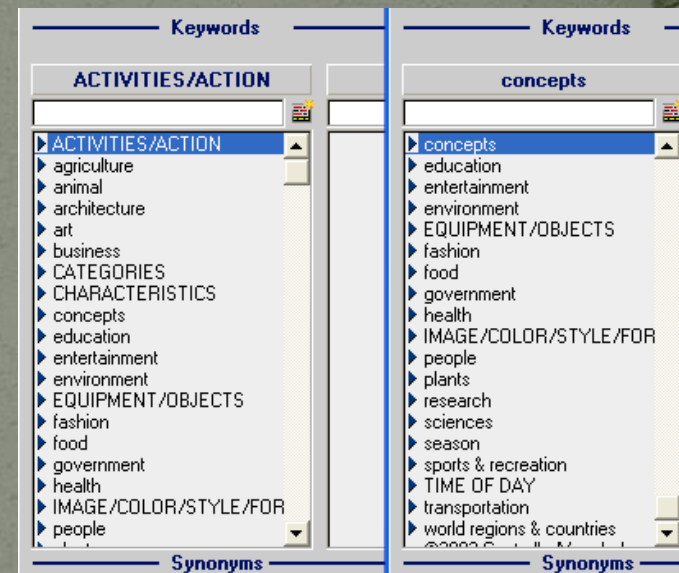
Thumbnails

Type III Higher Metadata

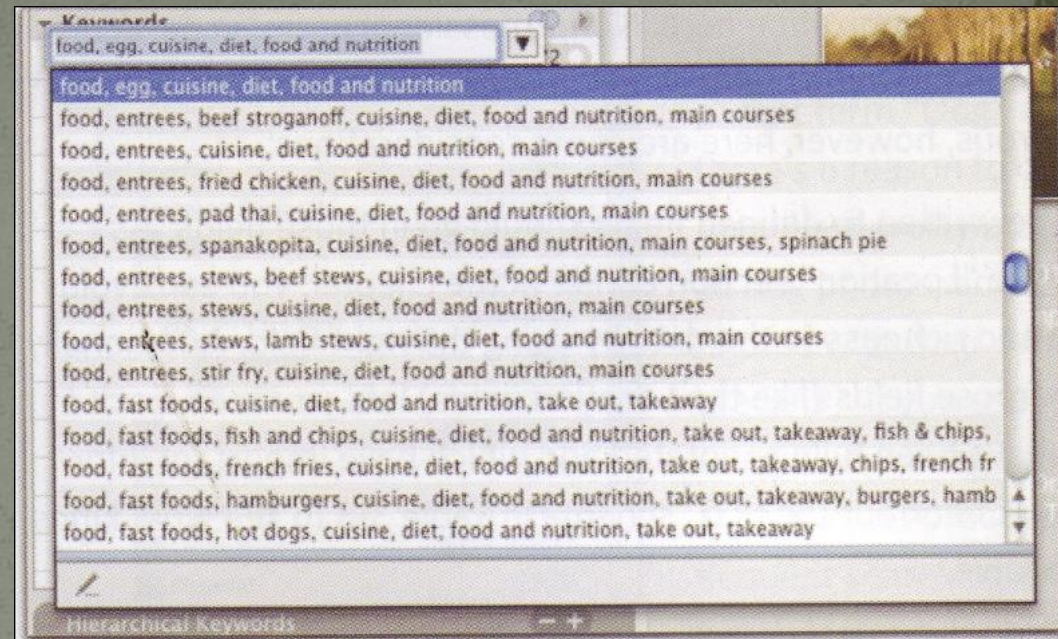
- Most valuable
- Most time consuming
- Keywords
- Ratings
 - Stars
 - Colours

Keywords

- What's a keyword?
 - Describe subject matter, style, uses or connotations of the photograph
 - So you can find it when you have forgotten you took it!
- Abstract terms, E.g., Victory
- Subject oriented E.g., Cat
- Hierarchical keywords
 - Helicopter, Airplane, Jet, Plane: AIRCRAFT
 - But
 - Jet: ENGINE
 - Categories:
 - Aircraft, Transport, Vehicle



- Controlled vocabulary
- MAKE NOTES
- E.g.,
 - Wife vs bride
 - Plane vs aeroplane



www.controlledvocabulary.com

Some pragmatic advice

- Don't repeat other metadata
 - E.g., Photographer's name, Location
- Be consistent (Write it down!)
- Your hierarchy WON'T be the same as anyone else's
- Be prepared to change it
- When in doubt, flat keyword list is most universal
- Keep a list of your searches
 - Are they finding what you need

Cive mo como keywords



Key Words 1

Club	Keywords
Rochdale	I was ill!
Bebington	Sport, canoes, kayak, red, yellow, blue, water, helmets, boats, tuition, “Freddie”
Warrington	Water sports, kayak, red, competition, sport, safety helmet, education, water, paddle, safety jacket, odd man out
Northwich	In joke, canoe, sport, water sport, kayak, paddles, children, taught, youth club, activity
Crosby	Canoe, water sports, paddles, children, life jackets, 8 canoes, kayaks
Ormskirk	Canoes, water sports, kayak, children, boat, paddles, water chaos, red, transport, instructor
Chester	Kayak, sport, water sport, canoes, children, red, water, Denton, rowing
Nantwich	Kayak, canoe, water sport, children, red, recreation, school trip, yellow boat, water
Bispham	Canoe, Children, water sports, kayaks, red, boats
Colne	Kayak, children, activity, water sport, leisure, education
South Mc/r	Canoe, water, red, children, boating, daylight, water sports
Beaumaris & Menai Bridge	

Keywords 2

Club	Keywords
Rochdale	I was ill!
Bebington	Red, white, blue , tank, wrecks , scrap , cars, warning
Warrington	Crushed, accident, wreck , vehicles, part, mangled, crush on you, smash, scrap , red, white & blue
Northwich	Wrecks , vandalism, motor sport, my car , ker-tang, scrap metal, must pay road tax, body shop
Crosby	Wrecks , scrap , cars , crash, dereliction, female drivers, monster trucks, manufactures recall
Ormskirk	Chaos, woman drivers, wrecks , scrap , bad parking, motor sports, red , squashed cars
Chester	Oops, tank trial, monster truck, Jeremy Clarkson, giant hedgehog, wrecks , insurance
Nantwich	Crash, red, demolition, demolition derby, failed MOTs, red white & blue , crashes, metal
Bispham	Wrecks , red car, white car, tank crash, cars, crush, scrap
Colne	Wreck , bad parking, monster cars, transport rubbish
South Mc/r	Wrecks , motor sports, cars, decay, truck show, big wheels, decay
Beaumaris & Menai Bridge	

Keywords 3

Club	Keywords
Rochdale	I was ill!
Bebington	Statue, hand , fortune telling, modern art, sculpture , palm tree, palm reading
Warrington	Sculpture , hand , heart, fingers, digital , hitch hikers guide, help me please, high five, stop
Northwich	Sculpture , hand , digital photograph , palmed off, wood working, halt, help
Crosby	Sculpture , hand , digital photograph , palmed off, halt, help
Ormskirk	Hand , statue , palm , fingers, digits , buried giant, can I go to the toilet, help
Chester	Sculpture , art, hand , prime suspect, gardens
Nantwich	Hand , sculpture , finger, thumb, Zieg heil, monument, art work, carving, digits
Bispham	Ornament, hand, sculpture, That's handy, Quirky
Colne	Sculpture , handstand, countryside, fellowship
South Mc/r	Hand , sculpture , digital, finger art, thumb, wood,
Beaumaris & Menai Bridge	

How big does a tree need to be?



- KISS

- Keep it simple stupid

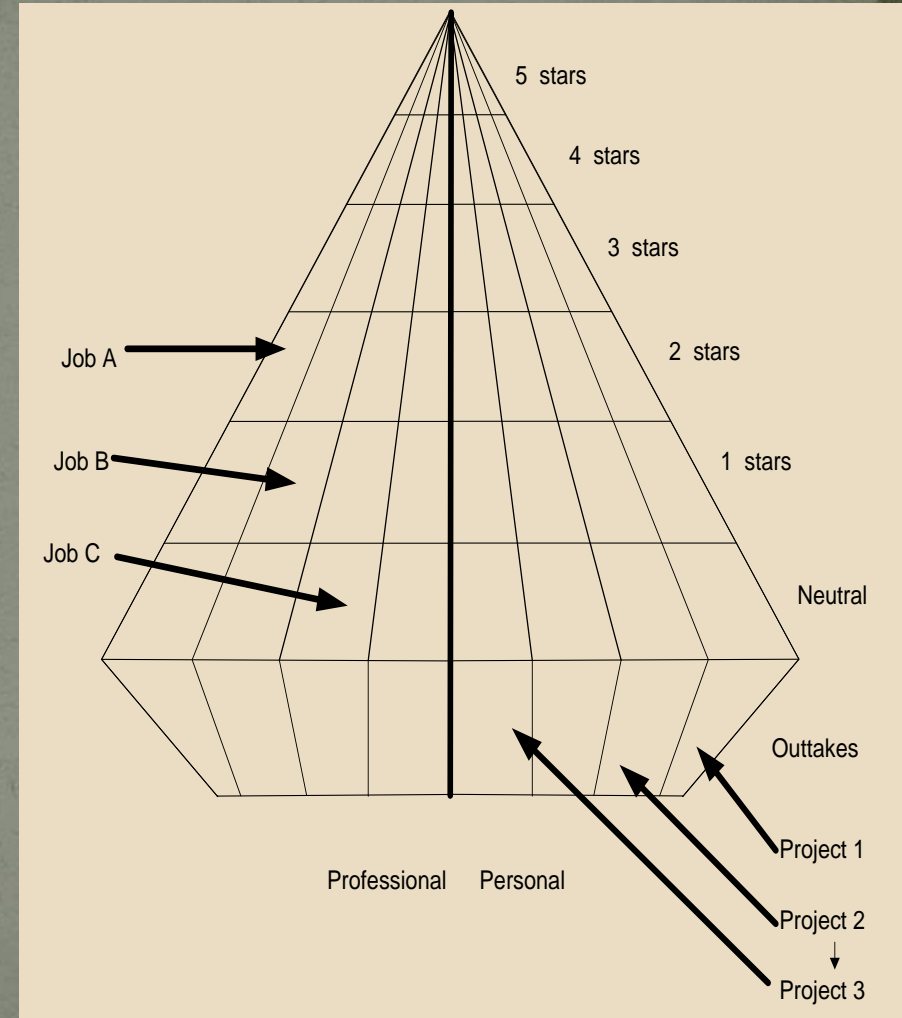
Flying Testbed

- Rolls-Royce image bank
 - 128,000 pictures
- What keywords would you type in to find this picture?
- Answer
 - FTB



Ratings

- Neutral
- One Star
 - Good enough to show someone
- Two Stars
 - Proud to show it to someone
- Three Stars
 - Best of a shoot
- Four Stars
 - Best of the year
- Five Stars
 - Resist using it!
- Unrated
- Outtakes or Rejects



Getting Ratings Right

Rating	Year 2008	Year 2035
Total photographs	278,595	1,392,975
Neutral	137,439	687,195
1 star	98,308	491,450
2 stars	25,649	128,245
3 stars	3,387	16,935
4 stars	376	1,880
5 stars	0	500

So why is metadata important?

- Using the
 - “extra data”
 - appropriate tool (e.g., Lightroom)
- Is the key to our Objectives:
 - Don't lose the Photographs
 - Find the photographs when needed
 - Save Time



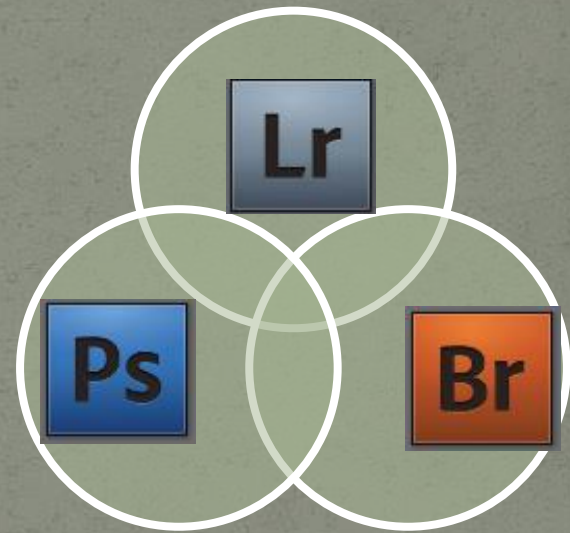
Browsers & Catalogues

A large orange triangle pointing left, located in the top right corner of the slide.

Slight diversion from Metadata

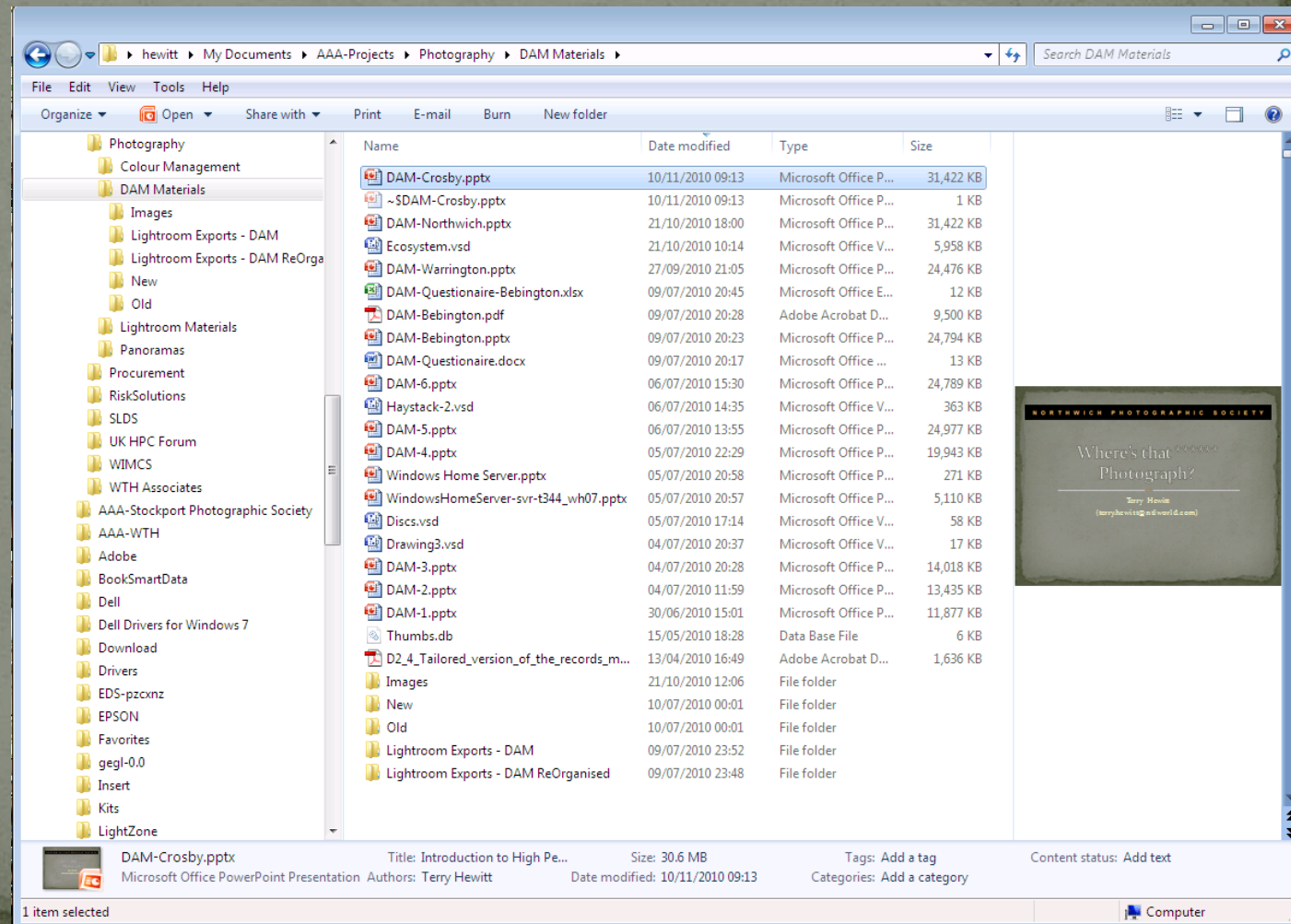
Browsers vs Catalogues

- Two fundamental kinds of software
- Browser
 - (Windows) Explorer
 - Adobe Bridge
- Cataloguing
 - Adobe Lightroom
 - Expression Media
 - Photo Mechanic



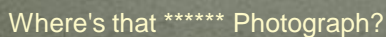
Browser: Explorer (explorer.exe)

- NOT Internet Explorer (iexplore.exe)

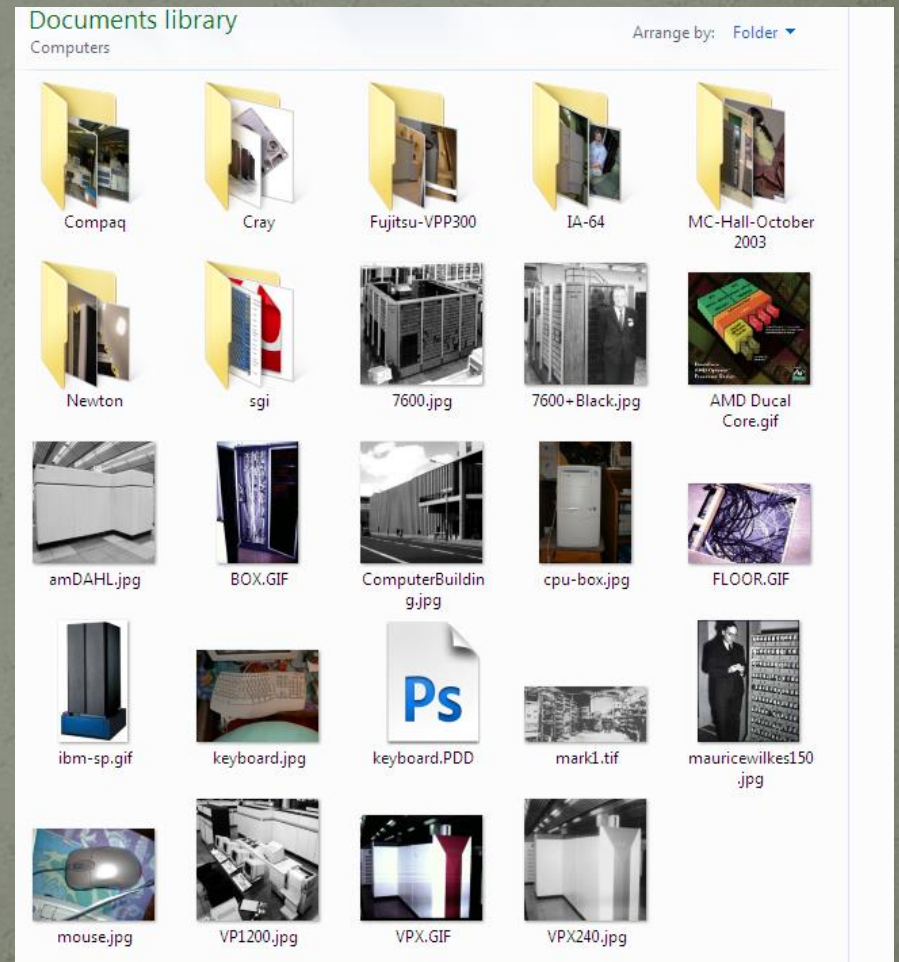


Where's that ***** Photograph?

Friday, 03 January 2014



Explorer displaying Thumbnails



Adobe Bridge

Adobe Bridge interface showing a folder named "Bramall Hall" containing 173 items. The interface includes a sidebar with Favorites and Filters, a central Content pane displaying a grid of image thumbnails, and a right-hand Preview pane showing a selected image and its metadata.

File Path: Desktop > Computer > Photos-1 (I:) > My Pictures > 2010 > 2010-May > Bramall Hall

Content Pane: Displays a grid of image thumbnails. The selected image is "2010_05_Bramall Hall_013.dng".

Preview Pane: Shows the selected image and its metadata.

Metadata:

- File Properties:**
 - Filename: 2010_05_Bramall Hall_013.dng
 - Document Type: DNG image
 - Application: DSLR-A100 v1.01
 - Date Created: 23/05/2010, 10:33:49
 - Date File Modified: 23/05/2010, 16:54:02
 - File Size: 7.35 MB
 - Dimensions: 2592 x 3872
 - Dimensions (in inches): 10.8" x 16.1"
 - Bit Depth: 16
 - Color Mode: RGB
 - Color Profile: Untagged
- Camera Data (EXIF):**
 - Exposure Mode: Manual
 - Brightness Value: 0.37
 - Focal Length: 18.0 mm
 - Focal Length in 35mm Film: 27.0 mm
 - Max Aperture Value: f/3.5
 - Flash: Did not fire, compulsory mode
 - Metering Mode: Pattern
 - Subject Area: 1936, 1296, 329, 393
 - Custom Rendered: Normal Process
 - White Balance: Auto
 - Scene Capture Type: Standard

Filter: Ratings, Keywords, Date Created, Orientation, Aspect Ratio, ISO Speed Ratings, Exposure Time, Aperture Value, Focal Length, Model, White Balance, Camera Raw.

Status Bar: 173 items, 1 selected - 7.35 MB (137 thumbnail extractions, 2 preview extractions)

Catalogue: Lightroom



Where's the

Same for Both

- Photographs in on Hard Disc
 - File in 1 place
 - Access to Photoshop etc
 - Previews/thumbnails
-

Comparison

Browsers

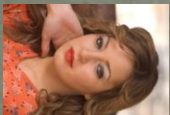
- List of All file types
- Some sorting/searching
- No editing

Catalogue

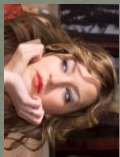
- Lists of photographs
 - Photograph in several lists
- Database of Metadata
- Sophisticated Sorting/searching
- Some editing

Folder & Collections

- Folder



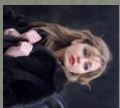
Maria 1.dng



Maria 2.dng



Maria 3.dng



Maria 4.dng



Train Driver.dng



Maria 5.dng



Christina 1.dng



Maria 6.dng

Where's that ***** Photograph?
Maria 7.dng



- Collection East Lancs

Maria1.dng

Train Driver.dng

- Collection XYZ

Maria 1.dng

Maria2.dng

- Collection ABC

Maria5.dng

Maria1.dng

Maria6.dng

Maria7.dng

Where is the metadata stored?

Browser

- Hard Disc
 - The File itself
- Sidecar file
 - Xxx.tif
 - Xxx.xmp

Catalogue

- Database

Non-destructive Image Editing

Non-destructive editing

- New Image = Old Image
+ instructions
+ Rendering Engine (software)
- Hopefully $\text{storage (instructions)} \ll \text{storage(Image)}$
- New Image must be created each time it's used
- Or
- New image is exported (to JPEG ,TIFF, ...)

Destructive Editing

- New Image = Old image + changes
- Can't get back "Old image" Or Changes
- Unless you saved "New Image" as a separate image
- Or
- see next slide for Adobe Photoshop

Non-destructive Editing in Photoshop

- Make a copy on a separate Layer
- Adjustment layers
 - Adjustment layers apply colour and tonal adjustments to an image without permanently changing pixel values.
- Smart Objects
- Filtering with Smart Filters
- Retouching on a separate layer
- Editing in Camera Raw
- Opening Camera Raw files as Smart Objects
- Cropping non-destructively
- Masking Layer and vector masks are non-destructive.

Demo Lightroom vs Photoshop

Non-Destructive

- 9 Mb Image
- 1Kb Instructions
- Crop to
- Change Exposure


Destructive

- 39 MB Image

The Value of Metadata

Terry Hewitt | Photography Library | Develop

▼ Navigator FIT FILL 1:1 3:1



▼ Catalog


- All Photographs 15248
- Quick Collection 32
- Previous Import 0
- Photos That Failed to Export 7

▼ Folders

- Dani-XPS17 (C:) 353 / 451 GB
 - SPS-308-Tony Arnold 0
- D:
 - Photos-2 (I:) 325 / 465 GB
 - DAM Images 1
 - My Pictures 15007
 - 1998& Before 1
 - 1999 32
 - 2000 65
 - 2001 32
 - 2002 663
 - 2003 348
 - 2004 541

Library Filter: Text Attribute Metadata None No Filter

Date	Camera	Lens	Label
All (498 Dates) 15248	All (52 Cameras) 15248	All (26 Lenses) 15248	All (5 Labels) 15248
1997 4	<Digimax V700 / Kenox V10 / Digim... 65	7.0-21.0 mm 55	Monochrome 6
1999 1	CSSZ,CS500Z 1	7.4-22.2 mm 92	Purple 2
2000 66	C765UZ 1	7.7-28.5 mm 8	Red 33
2001 2	C2040Z 13	12.0-24.0 mm f/4.0 3	Yellow 1
2002 656	Canon DIGITAL IXUS 960 IS 8	16.0-35.0 mm 1	No Label 15206
2003 508	Canon EOS 5D 3	17.0-35.0 mm 2	
January 17	Canon EOS 20D 6	17.0-85.0 mm 8	
February 186	Canon EOS 30D 5	18.0-55.0 mm f/3.5-5.6 6	
March 9	Canon EOS 40D 1	18.0-70.0 mm f/3.5-5.6 81	
April 4	Canon EOS 350D DIGITAL 11	18.0-200.0 mm f/3.5-5.6 9	
June 18	Canon EOS 400D DIGITAL 8	55.0-200.0 mm f/4.0-5.6 6	
July 60	Canon EOS 450D 5	70.0-200.0 mm 2	
August 75	Canon EOS 1000D 1	70.0-200.0 mm f/2.8 8	
September 59	Canon EOS-1D 1	70.0-300.0 mm f/4.0-5.6 2	
November 5	Canon EOS-1D Mark II N 39	75.0-300.0 mm f/4.5-5.6 134	
December 75	Canon EOS-1D Mark III 3	150.0-500.0 mm 1	
2004 611	Canon EOS-1DS 3	EF16-35mm f/2.8L USM 1	
2005 681	Canon IXY DIGITAL 400 111	EF17-35mm f/2.8L USM 2	

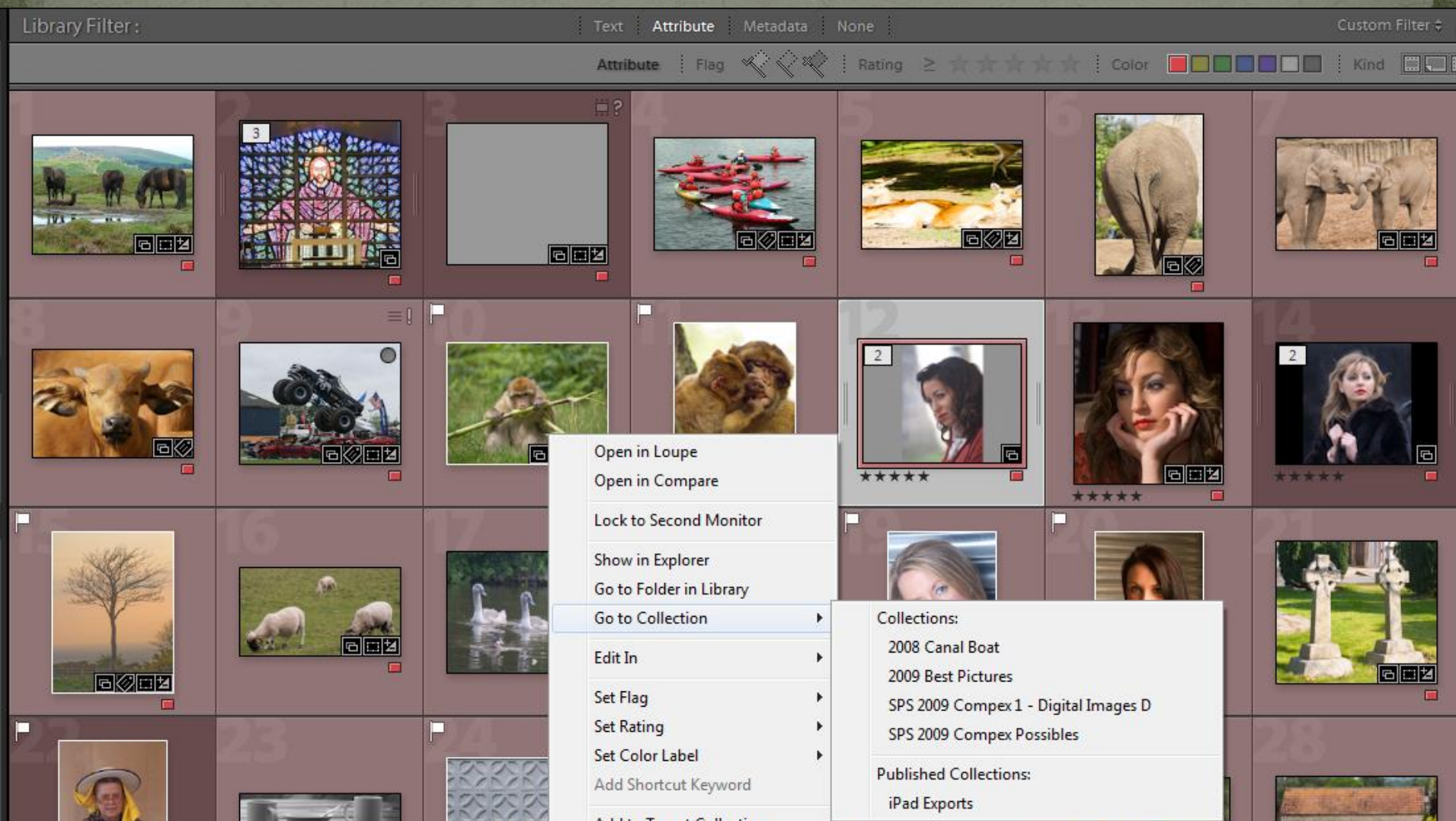


Where's that ***** Photograph?

Friday, 03 January 2014

47

“Red” Ones



Pictures You didn't know you had!

▼ Navigator FIT FILL 1:1 3:1 Library Filter: Text Attribute Metadata None Default Columns: [X]

Text Searchable Metadata Contains Kelly [X]

Date	Camera	Lens	Label
All (2 Dates)	389	All (1 Camera)	389
2009-10-10	41	DSLR-A100	389
2010-10-16	348	Unknown Lens	389

▼ Catalog

- All Photographs 15248
- Quick Collection 32
- Previous Import 0
- Photos That Failed to Export 7

▼ Folders

- Dani-XPS17 (C:) 352 / 451 GB
- SPS-308-Tony Arnold 0
- D:
- Photos-2 (I:) 325 / 465 GB
- DAM Images 1
- My Pictures 15007
 - 1998& Before 1
 - 1999 32
 - 2000 65
 - 2001 32
 - 2002 663
 - 2003 348
 - 2004 541
 - 2005 472
 - 2006 1250
 - 2007 3133
 - 2008 1625
 - 2009 1996
 - 2009-April 152
 - Bodelwyddan... 70

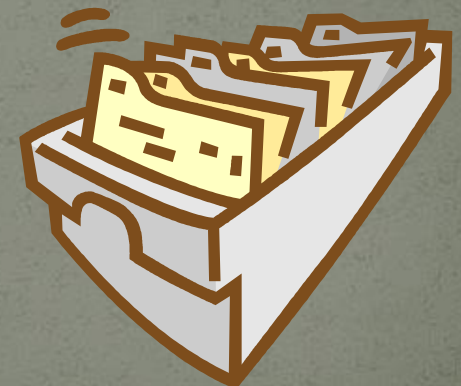
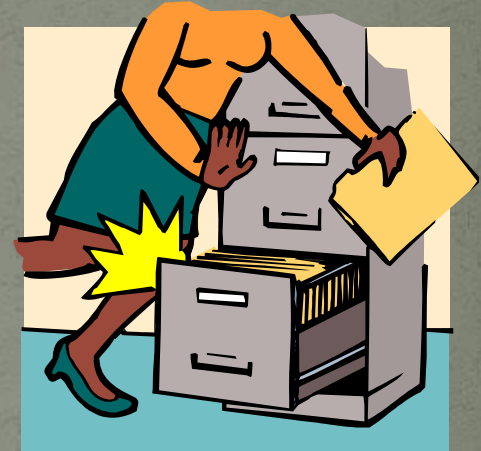
Open in Loupe
Open in Compare
Lock to Second Monitor
Show in Explorer
Go to Folder in Library
Go to Collection
Edit In
Set Flag
Set Rating
Set Color Label
Add Shortcut Keyword
Add to Target Collection
Stacking
Create Virtual Copy
Develop Settings
Metadata Presets
Rotate Left (CCW)
Rotate Right (CW)
Metadata
Export
Delete Photo...
View Options...

Not in any collections

Organising & Naming Files/Folders

Folders on Windows?

- What are Folders Good For?
 - Organising “Projects”
 - NOT organising photographs
 - Storage NOT organisation
- When you move a photograph the “folder” information is lost!
- Folder & file name should be unimportant!
 - Use cataloguing software



- Scalable
- Consistent
- Simple
 - Quick to scan
 - Quick to add to
- Distinguish
 - Originals
 - Working (edited) copies
 - Derived files (for printing etc)
- Easy for backup/archive and RESTORE



Some Rules




































- Names (of files & directories)
 - Least changing first
 - Fixed width fields first
 - Keep < 20 folders in each folder
 - Year-Month-Date
 - Use numbers for months
 - Not Year-Day-Month...

Bad	Good
2020-4-Feb	2010-01-03
2020-3-Jan	2010-02-04

Photograph Naming

- Each photograph should have a unique name
- Each photograph should have an extension
 - .jpg, .nef, .tif,...
- Name should be less than 31 characters
- Only One . (dot)
- Sequence numbers should have leading zeros
- Should be applied all the time!
- Must work with your software
- Working or derived files via “extra” words
 - “working”, “edited”
- NO content
- (Optional) Include your name

- 2010_04_Salford Quays_001.dng
- 2010_04_Salford Quays_002.dng
- 2010_04_Salford Quays_003.dng
- 2010_04_Salford Quays_004.dng

 2006 09 02	25/04/2010 10:59	File folder	
 2006-August	25/04/2010 10:59	File folder	
 aquabar	25/04/2010 10:59	File folder	
 dani1	25/04/2010 10:59	File folder	
 david tweets	25/04/2010 10:59	File folder	
 e.d.hewitt3850774957	25/04/2010 10:59	File folder	
 favs	25/04/2010 10:59	File folder	
 fridaynights =]]	25/04/2010 10:59	File folder	
 jan 07	25/04/2010 10:59	File folder	
 LOVEIT	25/04/2010 10:59	File folder	
 lovethem	25/04/2010 11:00	File folder	
 New Folder	25/04/2010 11:00	File folder	
 New Folder (3)	25/04/2010 11:00	File folder	
 old	25/04/2010 11:00	File folder	
 satnights	25/04/2010 11:00	File folder	
 stockport	25/04/2010 11:00	File folder	
 summer2007	25/04/2010 11:00	File folder	
 XMAS!2006	25/04/2010 11:00	File folder	
 01AwcAX2AjreUAAAAA_...	03/04/2008 11:34	JPEG image	21 KB
 3yfnxnt.gif	07/01/2007 20:30	GIF image	11 KB
 05-14-broken-glass.jpg	29/04/2005 22:06	JPEG image	19 KB
 13.jpg	07/06/2006 19:17	JPEG image	40 KB
 100.jpg	23/03/2006 22:33	JPEG image	16 KB
 7522.jpg	15/02/2005 18:40	JPEG image	36 KB
 031606_stm_tatum300.jpg	07/12/2006 20:55	JPEG image	35 KB
 081506_tatum_1_300.jpg	07/12/2006 20:35	JPEG image	16 KB
 104008_kl[1].jpg	29/10/2004 15:10	JPEG image	10 KB
 212779064a1441355888b775210632l.jpg	13/08/2006 12:55	JPEG image	4 KB
 212779064a1571761853b781548804l.jpg	13/08/2006 12:57	JPEG image	16 KB
 212779064a1571793773b483312889l.jpg	13/08/2006 13:01	JPEG image	17 KB
 abersoc 016.jpg	20/03/2007 22:07	JPEG image	1,289 KB
 abersoc 019.jpg	20/03/2007 22:09	JPEG image	1,209 KB
 abi & liv.jpg	07/08/2007 13:49	JPEG image	38 KB
 abi and danielle xxxx.jpg	20/12/2006 22:21	JPEG image	68 KB
 abi n sares.jpg	10/12/2006 19:56	JPEG image	10 KB
ad01.ai	15/09/2002 20:49	Adobe Illustrator ...	676 KB

Example

File Name	Type
Krogh_050101_1234.DNG	Camera Original
Krogh_050101_1234.NEF	Camera Original
Krogh_050101_1234_Master.tif	Colour Corrected, retouched file
Krogh_050101_1234_BW.tif	B&W of above
Krogh_050101_1234_CMYK.tif	Converted to CMYK for printing
Krogh_050101_1234_Flat.tif	Flattened version of the master file
Krogh_050101_1234.tif	File to give to client for proofing etc
Krogh_050101_1234.jpg	In-camera original or file deliver to client or printer

- Directory

- Year

- Month

- Project

- Photograph 1
 - Photograph 2
 - Photograph 3

- Directory

- Year

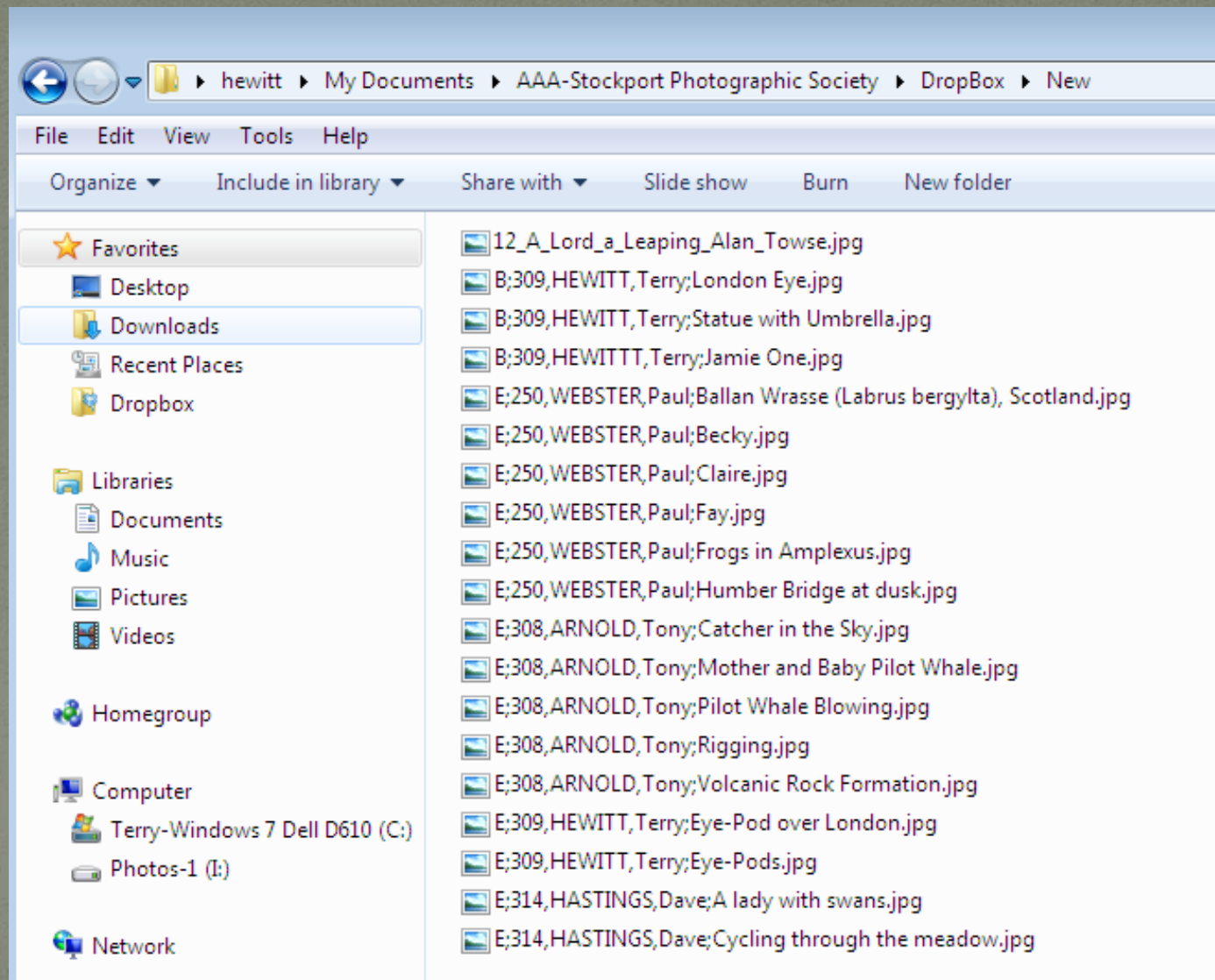
- Project

- Photograph 1
 - Photograph 2
 - Photograph 3

Keep Originals “far away” from working & derived files

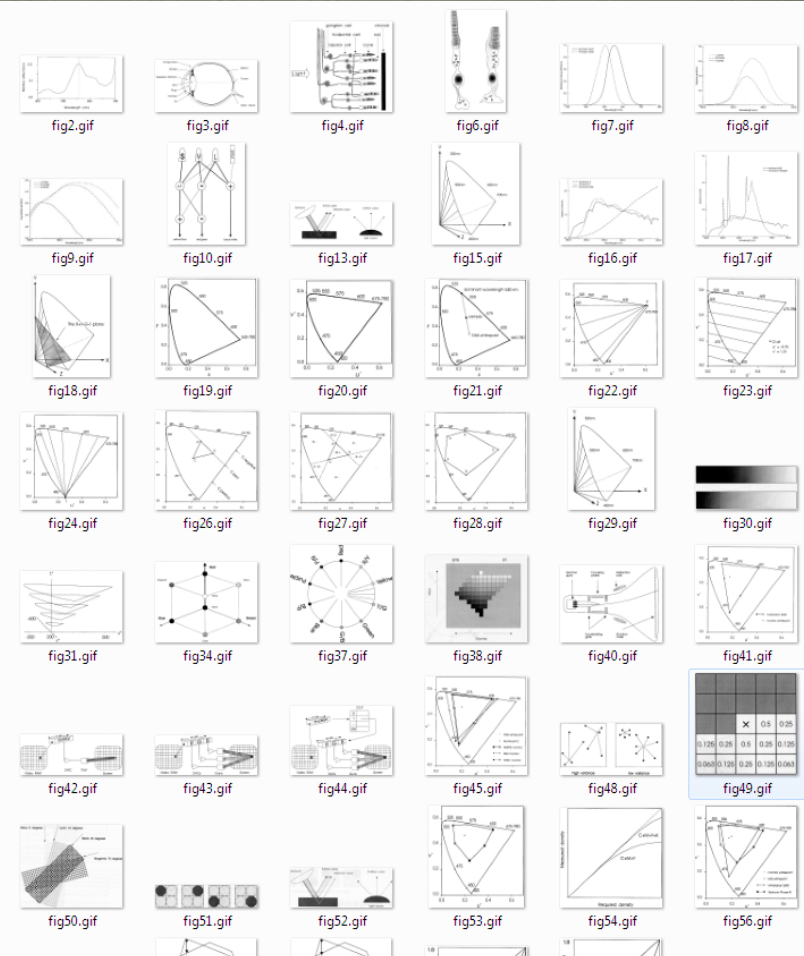
- Originals
- I:\My Pictures
 - 2010
 - 2009
 - 2009-03
 - Project 1
 - 2009-04
 - 2008
- Working
- C:\users\hewitt\documents\My Pictures
 - 2010
 - 2009
 - 2009-03
 - Project 1
 - 2009-04
 - 2008
- Finished
- C:\users\hewitt\documents\Exports
 - 2010
 - 2009
 - 2009-03
 - Project 1
 - 2009-04
 - 2008

hewitt ▶ My Documents ▶ AAA-Stockport Photographic Society ▶ DropBox ▶ Old			
Search Old			
Edit View Tools Help			
Size Include in library Share with Slide show Burn New folder			
favorites	Name	Date	Type
Desktop	.dropbox	09/05/2010 18:46	DROPBOX File
Downloads	12_A_Lord_a_Leaping_Alan_Towse.jpg	14/05/2008 12:14	JPEG image
Recent Places	B;Jamie One;HEWITT,Terry,309.jpg	01/02/2010 01:06	JPEG image
Dropbox	B;London Eye;HEWITT,Terry,309.jpg	01/02/2010 01:07	JPEG image
	B;Statue with Umbrella;HEWITT,Terry,309.jpg	01/02/2010 01:06	JPEG image
libraries	E;A lady with swans;Hastings_Dave_314.jpg	23/09/2009 16:28	JPEG image
Documents	E;Ballan Wrasse (Labrus bergylta), Scotland;WEBSTER,Paul,250.jpg	07/10/2009 15:54	JPEG image
Music	E;Becky;WEBSTER,Paul,250.jpg	28/02/2010 14:42	JPEG image
Pictures	E;Catcher in the Sky;ARNOLD,Tony,308.jpg	26/04/2010 20:02	JPEG image
Videos	E;Claire;WEBSTER,Paul,250.jpg	10/02/2010 12:49	JPEG image
	E;Cycling through the meadow;Hastings_Dave_314.jpg	29/05/2009 16:22	JPEG image
omegroup	E;Eye-Pod over London;HEWITT,Terry,309.jpg	01/02/2010 01:09	JPEG image
	E;Eye-Pods;HEWITT,Terry,309.jpg	01/02/2010 01:10	JPEG image
omputer	E;Fay;WEBSTER,Paul,250.jpg	13/11/2009 22:34	JPEG image
Terry-Windows 7 Dell D610 (C:)	E;Frogs in Amplexus;WEBSTER,Paul,250.jpg	26/03/2006 12:16	JPEG image
Photos-1 (I:)	E;Humber Bridge at dusk;WEBSTER,Paul,250.jpg	10/12/2009 17:24	JPEG image
	E;Mother and Baby Pilot Whale;ARNOLD,Tony,308.jpg	26/04/2010 19:59	JPEG image
etwork	E;Pilot Whale Blowing;ARNOLD,Tony,308.jpg	26/04/2010 20:00	JPEG image
	E;Rigging;ARNOLD,Tony,308.jpg	26/04/2010 20:05	JPEG image
	E;Volcanic Rock Formation;ARNOLD,Tony,308.jpg	26/04/2010 19:58	JPEG image



2coldith.cdr
 8bitidx.cdr
 24bitn.cdr
 chart.cdr
 coding.cdr
 colmod_section2.cdr
 coloutpt.cdr
 crt.cdr
 emspecc.cdr
 eyecorn.cdr
 eyeopti.cdr
 gamut3.cdr
 gamut3c.cdr
 grassclr.cdr
 gridblob.cdr
 hls.cdr
 lchsat.cdr
 meas_section.cdr
 mixer.cdr
 munwheel.cdr
 neweye.cdr
 retina_slide.cdr
 scale.cdr
 see_section.cdr
 uniform_3d.cdr
 uv_to_cc.cdr
 4screens.cdr
 24bit.cdr
 aftrimg.cdr
 cheapgam.cdr
 colhead.cdr
 colmodel.cdr
 coltitle.cdr
 emitrefl.cdr
 eyeclr.cdr
 eyeiris.cdr
 eyescle.cdr
 gamut3a.cdr
 gamuts.cdr
 greybal.cdr
 hering.cdr
 hsv.cdr
 lchsat.cdr
 meascol.cdr
 mixerm.cdr
 ncstria.cdr
 rainbow.cdr
 retinac.cdr
 scale2.cdr
 seeincol.cdr
 usage_section.cdr
 variance.cdr
 8bitgrey.cdr
 24bit2.cdr
 blured.cdr
 cielch.cdr
 colmod_section.cdr
 colout_section.cdr
 compute.cdr
 emspec.cdr
 eyeconj.cdr
 eyelens.cdr
 eyezonu.cdr
 gamut3b.cdr
 grass.cdr
 greycrep.cdr
 hering2.cdr
 illusion.cdr
 luvtmp.cdr
 machband.cdr
 median.cdr
 munsell.cdr
 ncsweel.cdr
 retina.cdr
 rgb.cdr
 screen_largeoverlap.cdr




























No metadata

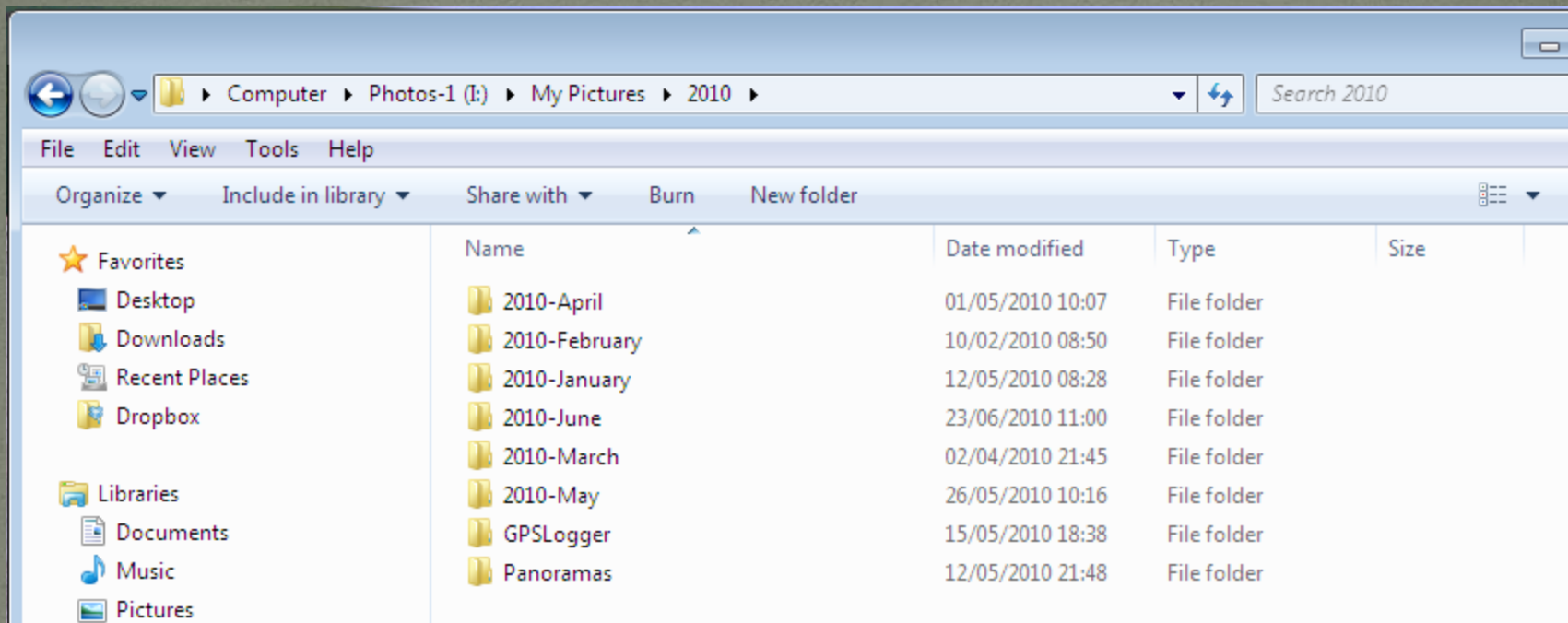


ccir709.eps
 ciematch.eps
 compute.eps
 cones_norm.eps
 hls.eps
 illum_acd.eps
 luv.tif
 meas_section.eps
 ncstria.eps
 photogamut.eps
 plate4.tif
 plate6.eps.gz
 plate7.tif
 rgb_old.eps
 see_section.eps
 uc_to_cc.eps
 ucs_3prim.eps
 uniform_3d.eps
 ccir709.ppm
 colmod_section.eps
 cones_all1.eps
 emspecc.eps
 hpmonitor.eps
 Illum-ad65.eps
 luv-ohp.ps
 median.eps
 ncsweel.eps
 photogamut.eps
 plate5.eps.gz
 plate6.tif
 plate24.eps.gz
 rgbhalf.eps
 striplight.eps
 ucs_2prim.eps
 ucs_5prim.eps
 usage_section.eps
 cielch.eps
 colout_section.eps
 cones_log.eps
 hls.eps
 hsv.eps
 lchsat.eps
 machband.eps
 mixerm.eps
 pg.eps
 plate4.eps.gz
 plate5.tif
 plate7.eps.gz
 plate24.tif
 screen_smalloverlap.eps
 testwidths.eps
 ucs_2primaries.eps
 ucs_23prim.eps
 vvdash.eps

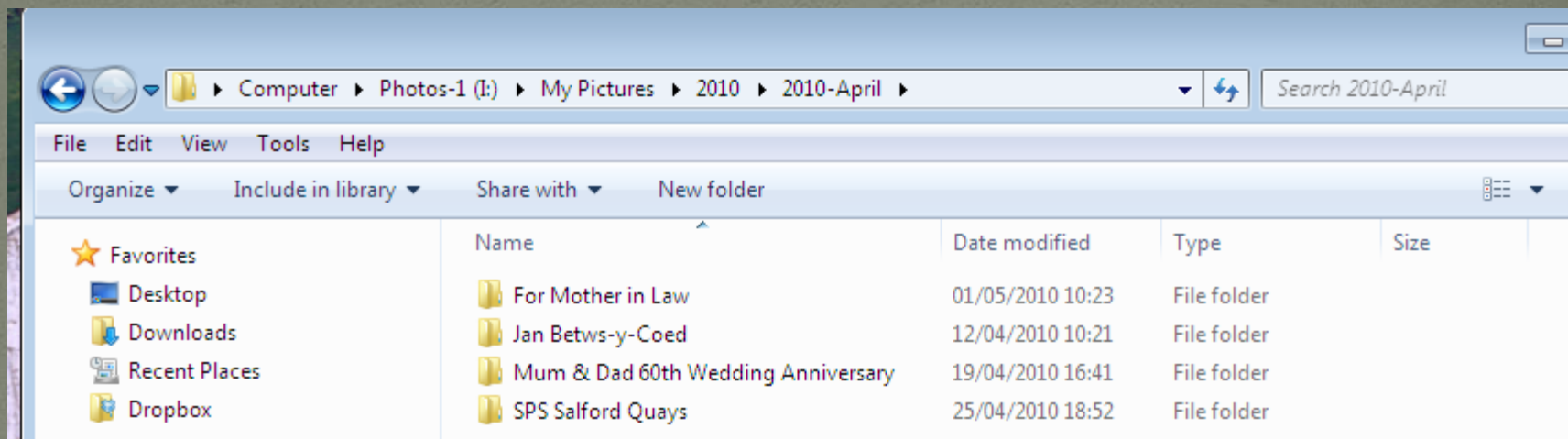
My Structure

- My Pictures
 - 2010
 - 2010-April
 - For Mother in Law
 - Jan Betws-y-Coed
 - Mum & Dad 60th Wedding Anniversary
 - SPS Salford Quays
 - 2010-February
 - 2010-January
 - 2010-June
 - 2010-March
 - 2010-May

Name	Date modified	Type	Size
 1998& Before	12/01/2009 21:48	File folder	
 1999	12/01/2009 21:48	File folder	
 2000	12/01/2009 22:39	File folder	
 2001	12/01/2009 22:39	File folder	
 2002	12/01/2009 22:41	File folder	
 2003	11/10/2009 02:08	File folder	
 2004	12/01/2009 22:43	File folder	
 2005	12/01/2009 22:44	File folder	
 2006	12/01/2009 22:49	File folder	
 2007	12/01/2009 23:45	File folder	
 2008	13/10/2009 10:08	File folder	
 2009	03/01/2010 21:27	File folder	
 2010	23/06/2010 12:05	File folder	
 East Lancs Demo	29/11/2009 16:56	File folder	
 Illumitran Tests	26/01/2010 13:11	File folder	
 Lightroom-Catalogs	09/06/2010 23:18	File folder	
 Miscellaneous	26/01/2010 12:31	File folder	
 MumDad	14/10/2009 22:14	File folder	
 Photography	27/05/2010 12:19	File folder	
 .BridgeLabelsAndRatings	25/07/2007 10:17	BRIDGELABELSAN...	0 KB
 Danielle-Terry's Head.pdf	13/06/2010 11:19	Adobe Acrobat D...	429 KB
 Desktop.ini	25/01/2008 00:34	Configuration sett...	1 KB
 FrontierPearl.icc	22/04/2009 15:46	ICC Profile	845 KB
 Fuji_570_ca_Glossy_paper.icc	22/04/2009 15:46	ICC Profile	845 KB
 fuji_570_dp_11_pro_luster_paper.icc	22/04/2009 15:46	ICC Profile	845 KB
 TerryHewittEDSApril2008.jpg	18/04/2008 12:12	JPEG image	33 KB
 TerryHewittEDSApril2008-2.jpg	27/05/2009 12:25	JPEG image	40 KB



- Better?
 - 2010-01
 - 2010-02
 - 2010-03



“Jan” – someone else’s photographs
“SPS” - Club photoshoot

File Edit View Tools Help

Organize Include in library Share with New folder

Computer

Terry-Windows 7 Dell D610

Removable Disk (D:)

DVD RW Drive (E:)

Photos-1 (I:)

Adobe Extras

Argyll_V1.1.0

DAM Images

My Pictures

1998& Before

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2010-April

For Mother in Law

Jan Betws-y-Coed

Mum & Dad 60th V

SPS Salford Quays

2010-February

2010-January

2010-June

2010-March

2010-May

GPSLogger

Panoramas

East Lancs Demo

Illumitrans Tests

Lightroom-Catalogs

Miscellaneous

MumDad

Photography

Name	Date	Type	Size	Ta
2010_04_SPS Salford Quays_001.dng	21/04/2010 17:47	DNG File	8,532 KB	
2010_04_SPS Salford Quays_002.dng	21/04/2010 17:47	DNG File	9,691 KB	
2010_04_SPS Salford Quays_003.dng	21/04/2010 17:47	DNG File	9,719 KB	
2010_04_SPS Salford Quays_004.dng	21/04/2010 17:47	DNG File	9,639 KB	
2010_04_SPS Salford Quays_005.dng	21/04/2010 17:47	DNG File	8,908 KB	
2010_04_SPS Salford Quays_006.dng	21/04/2010 17:47	DNG File	9,342 KB	
2010_04_SPS Salford Quays_007.dng	21/04/2010 17:47	DNG File	9,938 KB	
2010_04_SPS Salford Quays_008.dng	21/04/2010 17:48	DNG File	9,440 KB	
2010_04_SPS Salford Quays_009.dng	21/04/2010 17:48	DNG File	9,668 KB	
2010_04_SPS Salford Quays_010.dng	21/04/2010 17:48	DNG File	9,490 KB	
2010_04_SPS Salford Quays_011.dng	21/04/2010 17:48	DNG File	9,123 KB	
2010_04_SPS Salford Quays_012.dng	21/04/2010 17:48	DNG File	9,070 KB	
2010_04_SPS Salford Quays_013.dng	21/04/2010 17:48	DNG File	9,051 KB	
2010_04_SPS Salford Quays_014.dng	21/04/2010 17:48	DNG File	9,316 KB	
2010_04_SPS Salford Quays_015.dng	21/04/2010 17:48	DNG File	9,830 KB	
2010_04_SPS Salford Quays_016.dng	21/04/2010 17:48	DNG File	9,649 KB	
2010_04_SPS Salford Quays_017.dng	21/04/2010 17:49	DNG File	9,038 KB	
2010_04_SPS Salford Quays_018.dng	21/04/2010 17:49	DNG File	9,004 KB	
2010_04_SPS Salford Quays_019.dng	21/04/2010 17:49	DNG File	9,067 KB	
2010_04_SPS Salford Quays_020.dng	21/04/2010 17:49	DNG File	9,425 KB	
2010_04_SPS Salford Quays_021.dng	21/04/2010 17:49	DNG File	9,240 KB	
2010_04_SPS Salford Quays_022.dng	21/04/2010 17:49	DNG File	9,471 KB	
2010_04_SPS Salford Quays_023.dng	21/04/2010 17:49	DNG File	9,277 KB	
2010_04_SPS Salford Quays_024.dng	21/04/2010 17:49	DNG File	9,296 KB	
2010_04_SPS Salford Quays_025.dng	21/04/2010 17:49	DNG File	9,369 KB	
2010_04_SPS Salford Quays_026.dng	21/04/2010 17:50	DNG File	9,423 KB	
2010_04_SPS Salford Quays_027.dng	21/04/2010 17:50	DNG File	9,324 KB	
2010_04_SPS Salford Quays_028.dng	21/04/2010 17:50	DNG File	10,299 KB	
2010_04_SPS Salford Quays_029.dng	21/04/2010 17:50	DNG File	9,885 KB	
2010_04_SPS Salford Quays_030.dng	21/04/2010 17:50	DNG File	9,607 KB	
2010_04_SPS Salford Quays_031.dng	21/04/2010 17:50	DNG File	9,502 KB	
2010_04_SPS Salford Quays_032.dng	21/04/2010 17:50	DNG File	9,667 KB	
2010_04_SPS Salford Quays_033.dng	21/04/2010 17:50	DNG File	9,774 KB	
2010_04_SPS Salford Quays_034.dng	21/04/2010 17:50	DNG File	10,486 KB	
2010_04_SPS Salford Quays_035.dng	21/04/2010 17:51	DNG File	9,668 KB	
2010_04_SPS Salford Quays_036.dng	21/04/2010 17:51	DNG File	7,630 KB	
2010_04_SPS Salford Quays_037.dng	21/04/2010 17:51	DNG File	9,415 KB	
2010_04_SPS Salford Quays_038.dng	21/04/2010 17:51	DNG File	9,866 KB	

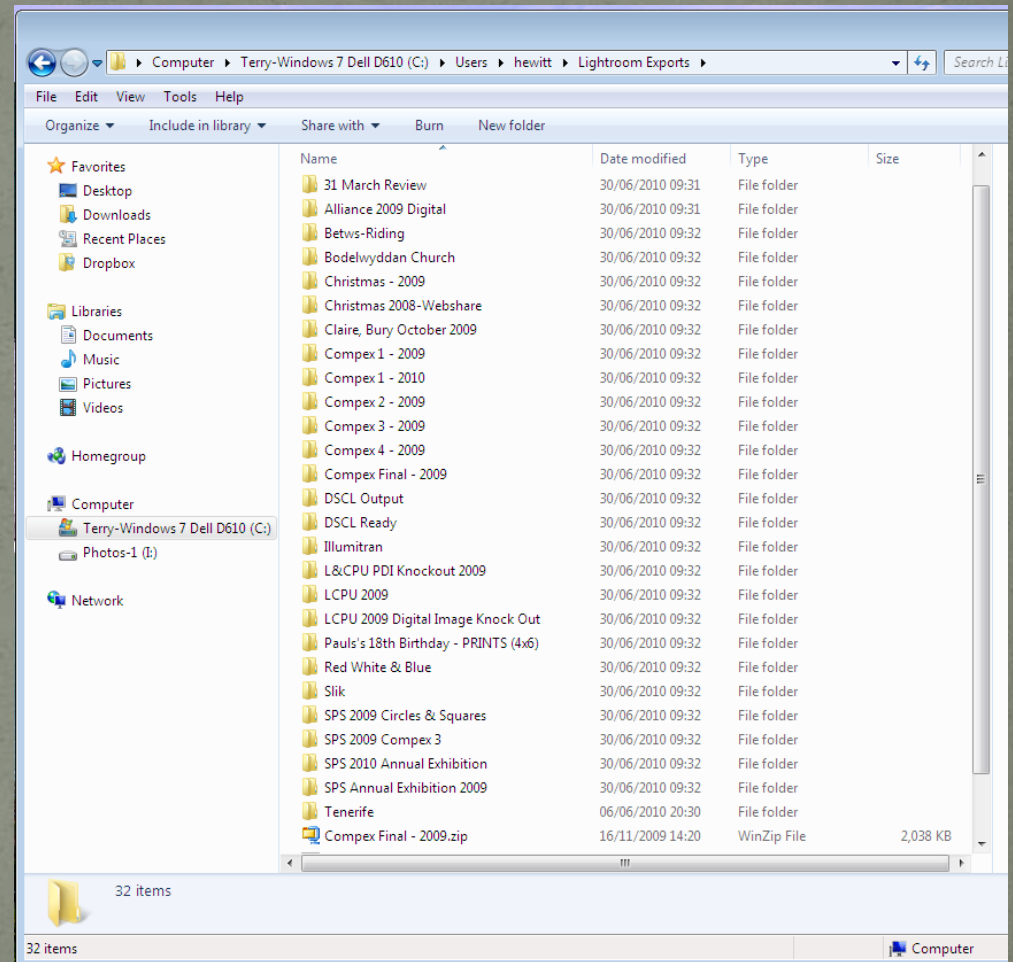
Where's that ***** Photograph?

Friday, 03 January 2014

67



































“Exports” - JPEG

- Printing
- Competitions
- Web pages
- Easily recreated



Renamed

- Follow my own rules!

Name	Date modified	Type	Size
 2008 Christmas-Webshare	30/06/2010 09:32	File folder	
 2009 Christmas	30/06/2010 09:32	File folder	
 2009 L&CPU PDI Knockout	30/06/2010 09:32	File folder	
 2009 LCPU	30/06/2010 09:32	File folder	
 2009 LCPU Digital Image Knock Out	30/06/2010 09:32	File folder	
 2009 October Claire, Bury	30/06/2010 09:32	File folder	
 2009 SPS 3ofa kind	30/06/2010 09:31	File folder	
 2009 SPS Alliance Digital	30/06/2010 09:31	File folder	
 2009 SPS Annual Exhibition	30/06/2010 09:32	File folder	
 2009 SPS Circles & Squares	30/06/2010 09:32	File folder	
 2009 SPS Complex 1	30/06/2010 09:32	File folder	
 2009 SPS Complex 2	30/06/2010 09:32	File folder	
 2009 SPS Complex 3	30/06/2010 09:32	File folder	
 2009 SPS Complex 3A	30/06/2010 09:32	File folder	
 2009 SPS Complex 4	30/06/2010 09:32	File folder	
 2009 SPS Complex Final	30/06/2010 09:32	File folder	
 2009 SPS March 31 Review	30/06/2010 09:31	File folder	
 2010 Complex 1	30/06/2010 09:32	File folder	
 2010 SPS Annual Exhibition	30/06/2010 09:32	File folder	
 2010 SPS Red White & Blue	30/06/2010 09:32	File folder	
 Betws-Riding	30/06/2010 09:32	File folder	
 Bodelwyddan Church	30/06/2010 09:32	File folder	
 DSCL Output	30/06/2010 09:32	File folder	
 DSCL Ready	30/06/2010 09:32	File folder	
 Illumitran	30/06/2010 09:32	File folder	
 iPod Photo Cache	09/11/2010 16:51	File folder	
 Pauls's 18th Birthday - PRINTS (4x6)	30/06/2010 09:32	File folder	
 Slik	30/06/2010 09:32	File folder	
 Tenerife	06/06/2010 20:30	File folder	
 Complex Final - 2009.zip	16/11/2009 14:20	WinZip File	2,038 KB
 Croyde Bay 2009.jpg	20/08/2009 12:43	JPEG image	2,898 KB
 DSC02401.jpg	22/12/2008 17:30	JPEG image	3,561 KB
 DSCF0176-Edit.jpg	25/01/2009 17:08	JPEG image	647 KB
 Thumbs.db	10/01/2010 19:59	Data Base File	192 KB

Where's that ***** Photograph?

Hardware for photograph Storage

Areas & Purchase Criteria

- Areas
 - Working file storage
 - Primary Archive Storage
 - Backup media
 - Other Components
- Purchase Criteria
 - Speed
 - 5400, 7200, 10K, 15K
 - Scalability
 - Reliability
 - Protection against hazards
 - Plays well with others
 - Mission critical?

Types determined by Connections

- Internal Drive
- External Drive
 - USB (or Firewire)
- Ethernet (Cat5/Cat6)
 - JBOD
 - Raid
 - NAS
 - DROBO
 - Windows Home server

Single Drives

- 1960's: 64MB on 20 platters
- 1980's: 300MB on 10 platters
- 2010: 1TB on 1 platter

Where's that ***** Photograph?



JBOD

- Just a Bunch of Discs
- System “sees” each disc as separate volume (C:, D:, ...)

Where's that ***** Photograph?



- Redundant Array of Independent Disks
- JBOD + hardware+software
 - RAID Controller
- A volume is spread across multiple discs
 - Resilience
 - Performance
- Simple view of RAID

- RAID 0: (striped)
 - treats several discs as one volume
- RAID 1: (mirror)
 - File is written to several drives
- RAID 5:
 - Combination of striping & mirroring
 - Can survive loss of any 1 disc

- Only buy this if you are seriously into IT!
- I wouldn't want to do this!

Simple view

- Generate a PARITY bit
 - Each byte (character) is 8 bits
 - So make a 9th bit
 - If the number of bits is even use 0
 - If the number of bits is odd use 1

0	1	1	1	0	1	1	1	0
0	1	1	1	0	1	0	1	1

- Then write each bit of each byte out on a separate disc
 - (i.e, 9 discs!)

- If one disc fails
 - – replace it
 - If its 9th disc – re-build parity from other 8!
 - If its disc 6 then work out from parity bits 1/o!

0	1	1	1	0		1	1	1
---	---	---	---	---	--	---	---	---

0	1	1	1	0		0	1	1
---	---	---	---	---	--	---	---	---

Networked Attached Storage

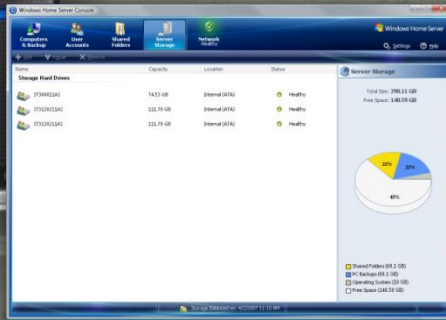
- Discs + processor + Ethernet
- Your PC “sees” these as volumes

DROBO

- Advantages of RAID
- All RAID stuff hidden from you
- USB (or Ethernet)



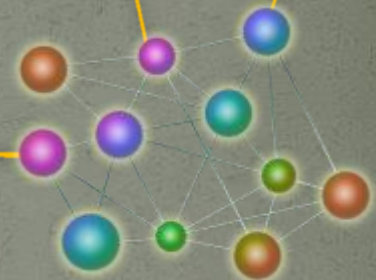
Windows Home Server



Laptop PC



Remote



Internet



WHS Facilities

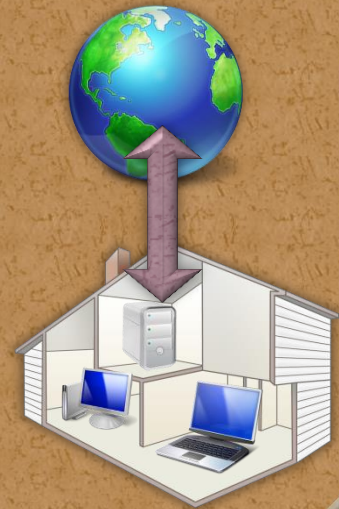
Smart Storage

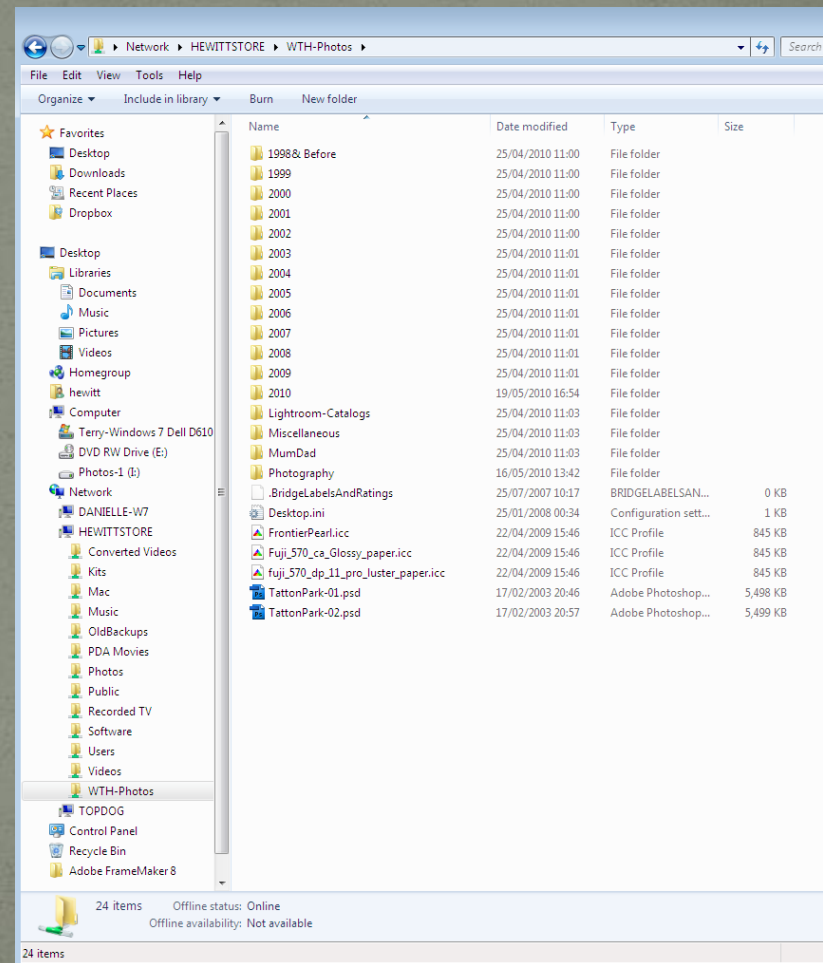


Automatic Backup



Remote Access





Backup



Where's that ***** Photograph?

Friday, 03 January 2014

85

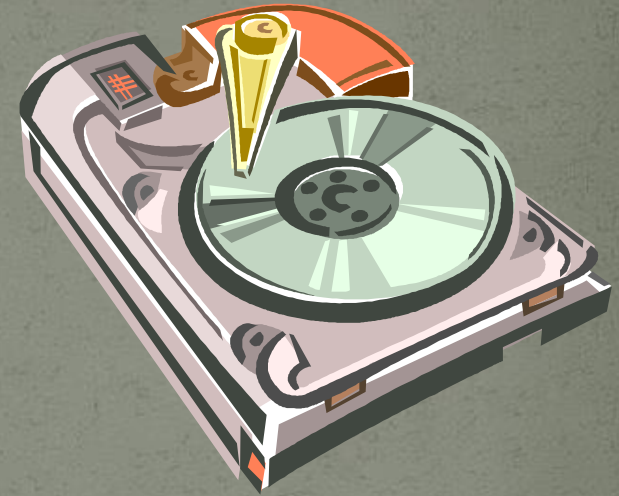
Backup vs Archive

- Backup
 - Photographs changing frequently
 - Short term insurance covering
 - Hardware faults
 - Finger trouble
- Archive
 - Photographs static
 - Long term storage of photographs
 - Easily accessible?

Where's that ***** Photograph?



- Discs are
 - New (empty)
 - Full
 - Broken
- Hewitt's law
 - If you have a disc it will break
 - Plan for it
 - **BACKUP!**



- Who does backups?

- I don't!

- I have automated software that backups up my
 - PC
 - Photographs



- GET BACKUPS DONE FOR YOU
 - AUTOMATE
- You will only forget on the days its needed!



3-2-1 Rule

- 3 copies of any important photographs
 - Primary and two backups
- 2 different media
 - Hard drive
 - Optical disc
- 1 copy offsite
 - At least offline



Threats to your data

- Device Failure
- Viruses
- Malicious Damage



- Volume & Directory Glitches
- Transfer Corruption
- Lightning strikes/Voltage surge



- Theft



- Fire/Water damage

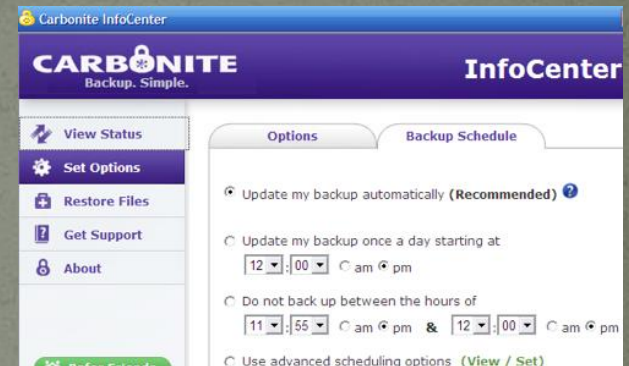
- Human Error
 - Finger trouble



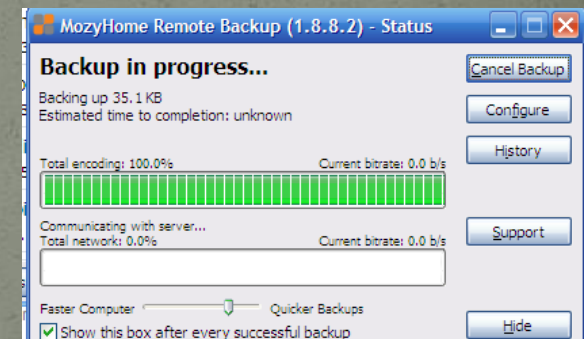
Where's that ***** Photograph?

Backup Software – Whole System

- Windows Backup (and Restore)
- Acronis True Image
- Carbonite (shareware)
- MozyHome (freeware & shareware)

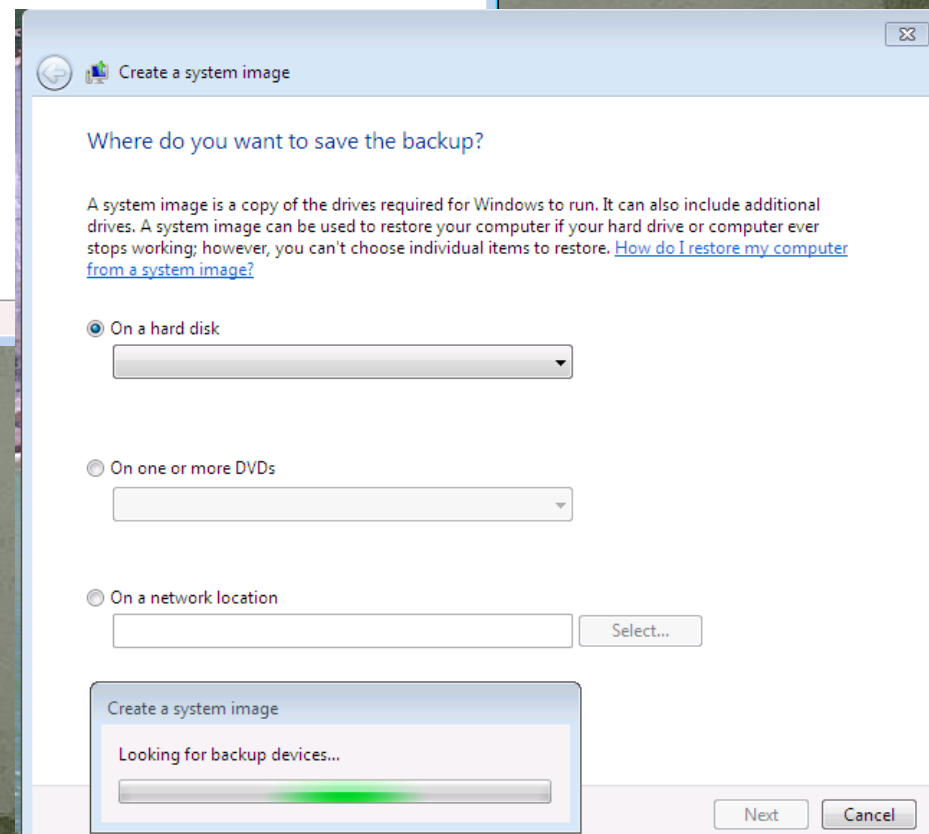
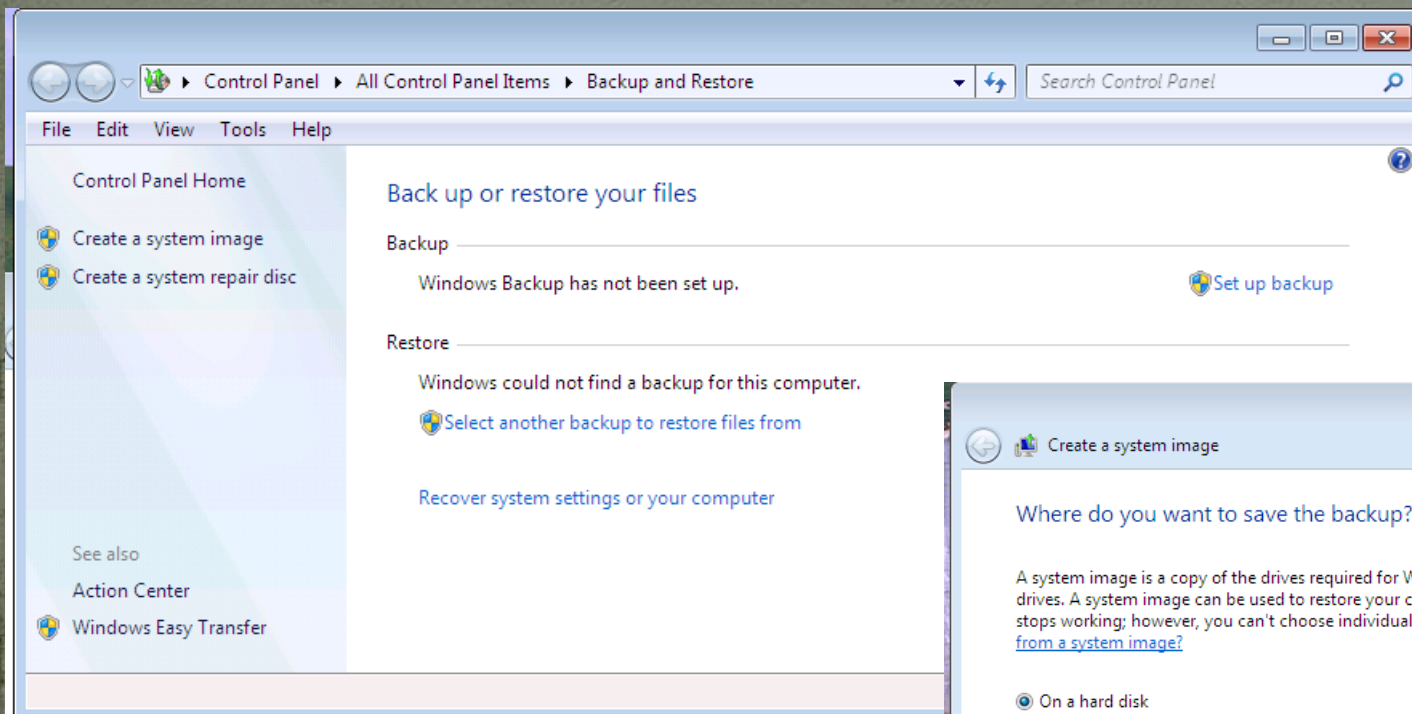


- Windows Home Server

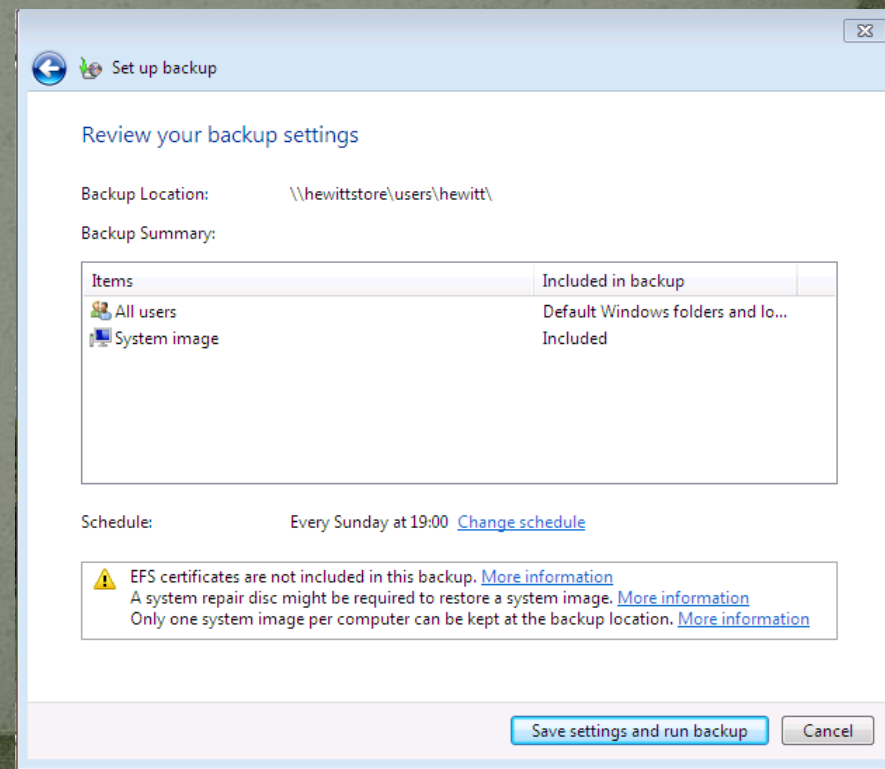
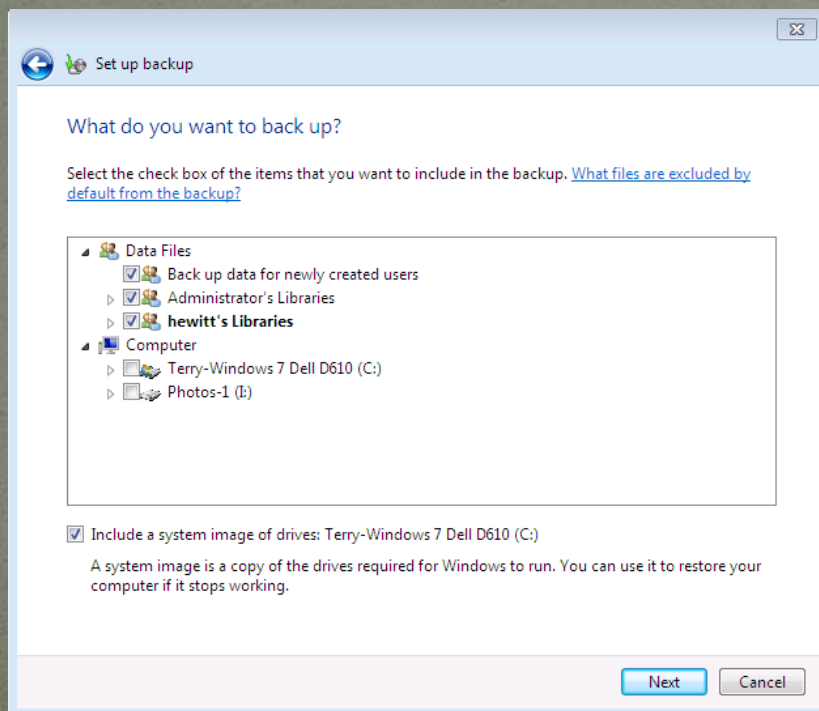
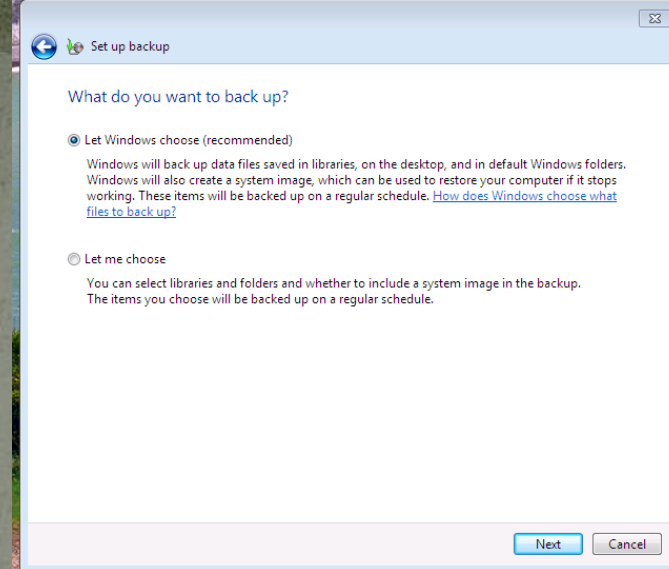
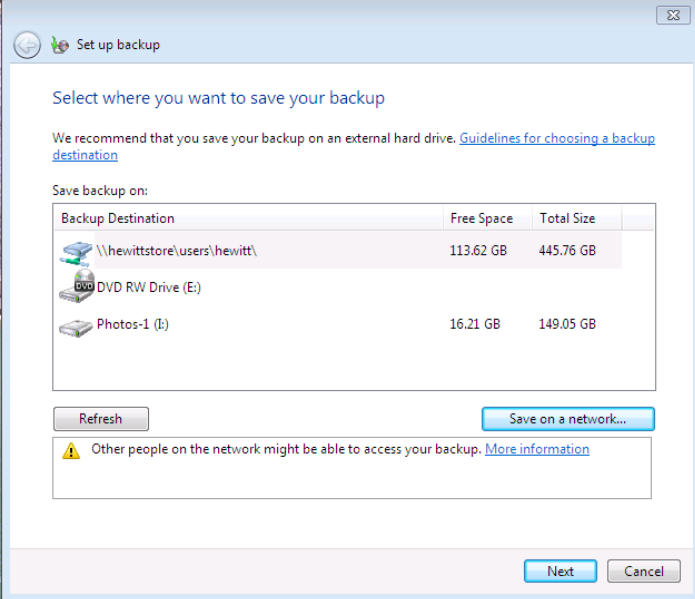


- Hides all the files in one big file
- Can Restore “windows”, applications & your files

Backup from Windows 7



Where's that ***** Photograph?



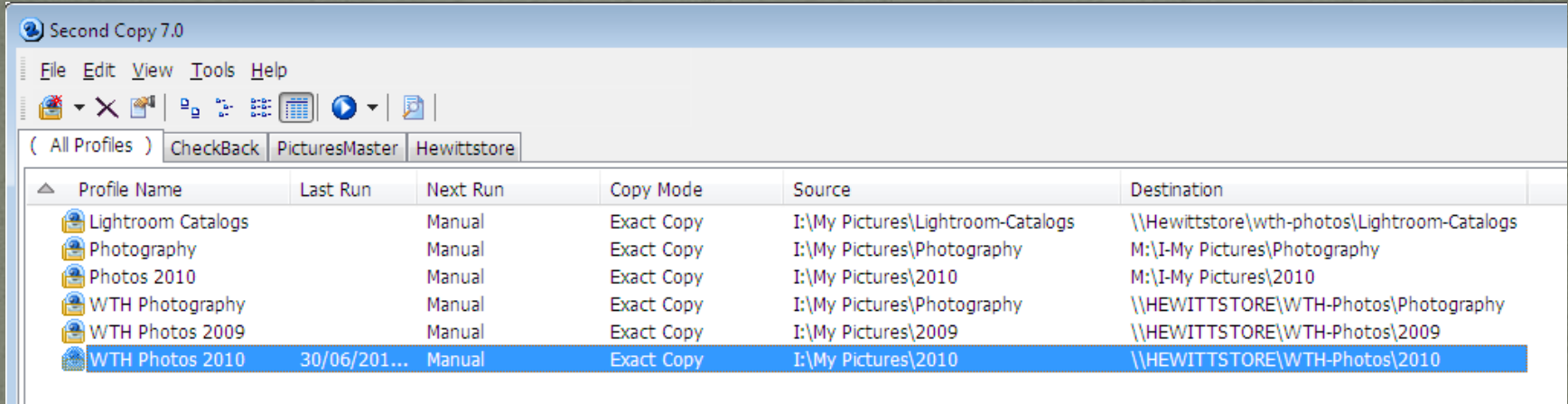
Backup Software - Data

- Data = files you create/modify
 - Photographs
 - Emails
 - Music
 - Videos
 - Documents
 - Shopping lists, reports, minutes, agendas, newsletters ,...
 - ...
- Second Copy

What do I do?

- Window's Home Server
 - Automatically backups all my PCs/Laptops every day
 - Windows, Applications, and all my files
- My external drive backs up to WHS (second copy)
- The Share Folders I use on WHS are mirrored
 - 2 copies of each file
- I have an external disc that I backup photographs to

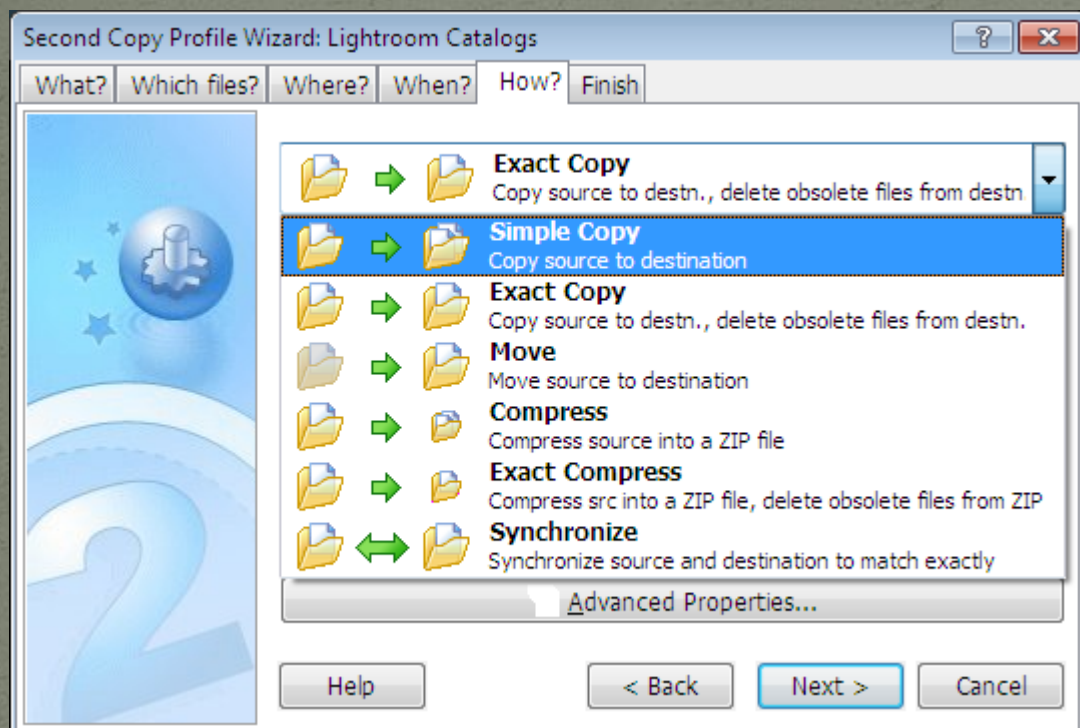
Second Copy



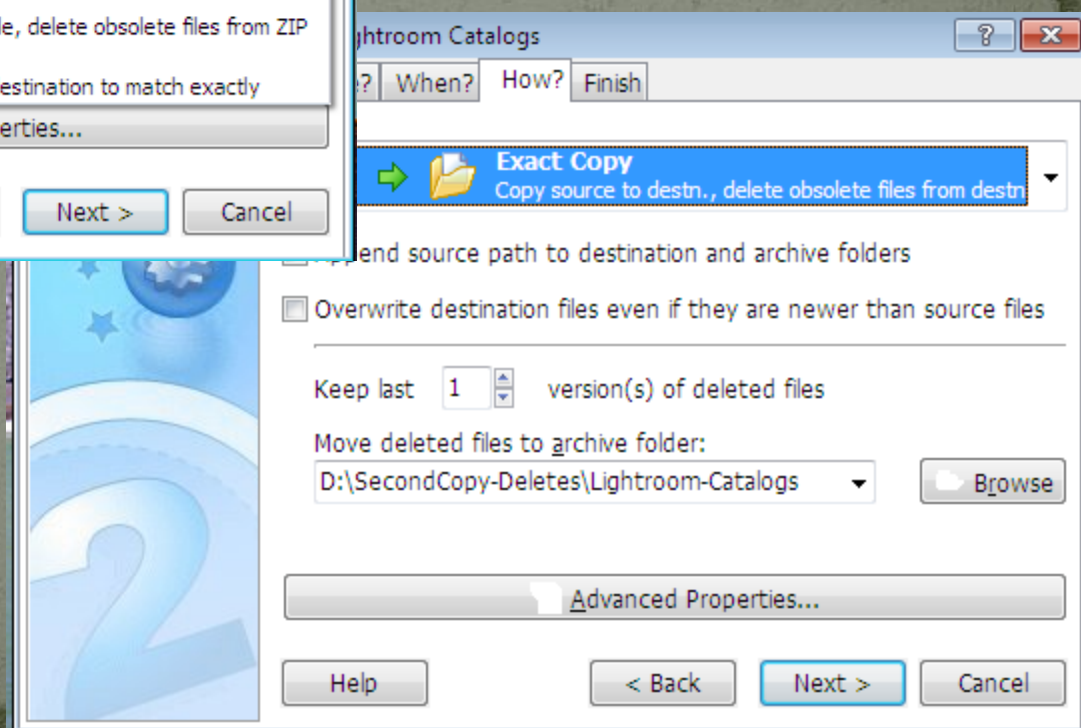
The screenshot shows the 'Second Copy 7.0' application window. It has a menu bar (File, Edit, View, Tools, Help) and a toolbar with various icons. Below the toolbar are tabs for '(All Profiles)', 'CheckBack', 'PicturesMaster', and 'Hewittstore'. The main area displays a table of backup profiles.

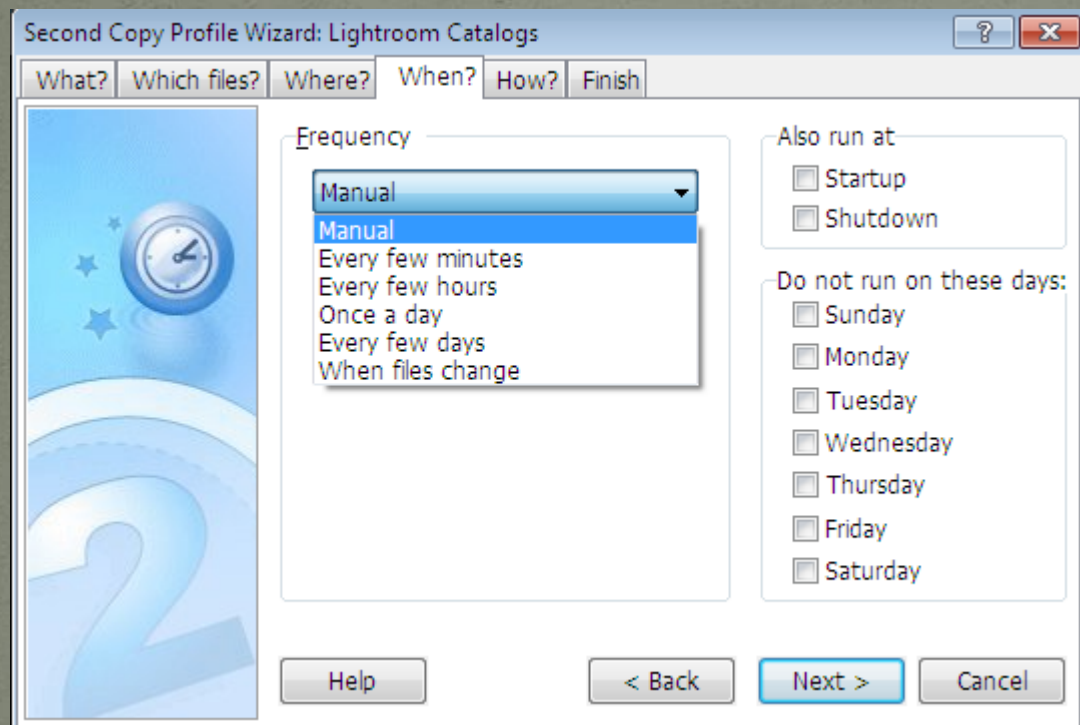
Profile Name	Last Run	Next Run	Copy Mode	Source	Destination
Lightroom Catalogs		Manual	Exact Copy	I:\My Pictures\Lightroom-Catalogs	\\Hewittstore\wth-photos\Lightroom-Catalogs
Photography		Manual	Exact Copy	I:\My Pictures\Photography	M:\I-My Pictures\Photography
Photos 2010		Manual	Exact Copy	I:\My Pictures\2010	M:\I-My Pictures\2010
WTH Photography		Manual	Exact Copy	I:\My Pictures\Photography	\\HEWITTSTORE\WTH-Photos\Photography
WTH Photos 2009		Manual	Exact Copy	I:\My Pictures\2009	\\HEWITTSTORE\WTH-Photos\2009
WTH Photos 2010	30/06/201...	Manual	Exact Copy	I:\My Pictures\2010	\\HEWITTSTORE\WTH-Photos\2010

- Makes a **copy** of your folders
 - You can modify/delete originals and copies separately
 - Feature or bug – depends on you!
- www.secondcopy.com



Where's that ***** Photograph?





If you think you have problems!

10PB disc space

=10,000 TB =10,000,000 GB

Over 10,000 discs

15PB Tape store

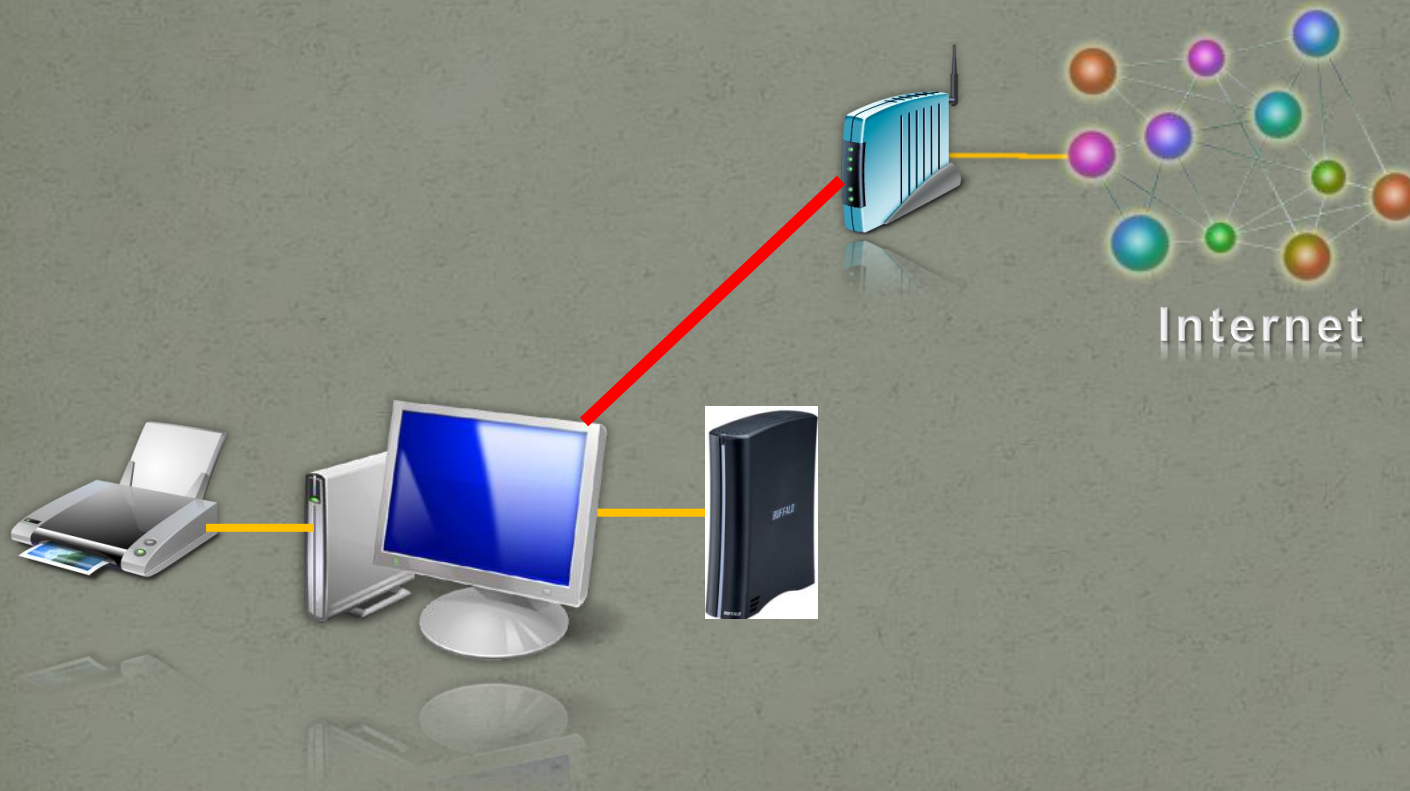
Some Examples

Laptop + External Disc

- This is what I'm using now
- External Drive
 - Stores Photographs
 - Stores BACKUPS

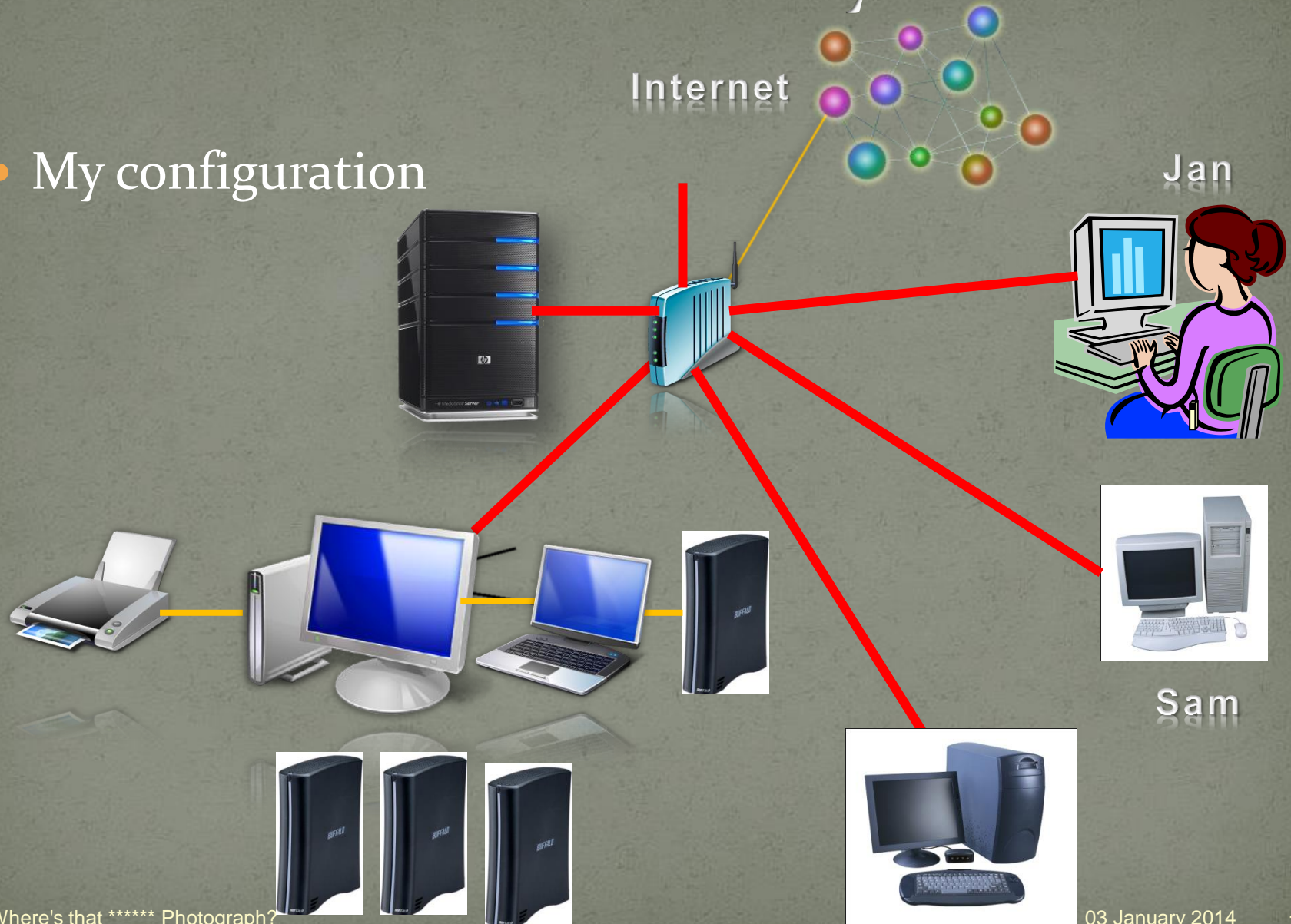


Home System



Home System + WHS

- My configuration



Where's that ***** Photograph?

03 January 2014

Conclusions

- Benefits of Managing your Photographs
 - Productivity
 - Adds value to your Photographs
 - Enhances longevity of your work
 - Enables you to roll with technological change
- DAM Rules
 - Systemize
 - Don't rely on your memory
 - Be comprehensive
 - Build for the future
 - Do it once...
- But don't overdo it

- Discs will fail!
 - Plan for it

• Backup Backup Backup

- 3-2-1 Rule
 - 3 copies of any important photographs
 - 2 different media
 - 1 copy offsite



Closing

Obrigado!



Manage your photos
Don't let your photos manage you!



Merci





Attribution-Non-Commercial-No Derivative Works 2.0 UK: England & Wales

You are free:



to copy, distribute, display, and perform the work

Under the following conditions:



Attribution — You must give the original author credit.



Non-Commercial — You may not use this work for commercial purposes.



No Derivative Works — You may not alter, transform, or build upon this work.

With the understanding that:

Waiver — Any of the above conditions can be **waived** if you get permission from the copyright holder.

Other Rights — In no way are any of the following rights affected by the license:

- Your fair dealing or **fair use** rights;
- Rights other persons may have either in the work itself or in how the work is used, such as **publicity** or privacy rights.

Notice — For any reuse or distribution, you must make clear to others the licence terms of this work.

This is a human-readable summary of the Legal Code (the full licence).

[Disclaimer](#)

Use this license for your own work.