



RAW COURAGE
**(Raw files and their
conversion)**

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FORMAT FOR THIS EVENING

- Presentation covering basics of raw files and raw conversion
- Detailed Demonstration of
 - Capture One
- Plus demonstrations of
 - Elements and CS
 - Adobe Lightroom
 - Canon product Digital Photo Professional
 - Nikon NX
- *Plenty of time for discussion and debate*

ALL DIGITAL PICTURES START LIFE AS RAW

- A raw file contains
 - The basic information about the image captured by each pixel
 - EXIF data- camera settings
- Raw files need to be converted to other formats for most subsequent output and image manipulation
- Three main types
 - Jpeg: Compressed file good for general use but loses quality
 - Tiff: Standard non compressed file used for most commercial purposes- maintains quality but large files
 - PSD: Used by Photoshop- similar to TIFF but not useable by all programmes
- In most compact cameras there is no option to output raw files
 - conversion to jpeg takes place within the camera
 - depending on type there is some ability to adjust settings for raw image conversion
- In SLR and other higher quality cameras the image can be output as raw files allowing much more control over conversion in separate software

DAVID NOTON- LANDSCAPE PHOTOGRAPHER

"Happiness is a smooth histogram. If you care about your pictures shoot raw"

"If you are shooting jpegs, information from the camera sensor is immediately being thrown away irretrievably. The picture is also being compressed .. and generally messed about with without your knowledge or consent"

"Try adjusting the levels of an 8bit jpeg in PS. Those nasty gaps and spikes are missing tones and rogue pixels"

WHY RAW- a digital negative

■ Benefits

- Better quality with no image degradation
- Better control over image e.g. shadow and highlight detail
- Easier image enhancements
- Flexibility to adjust image settings post capture

■ Disbenefits

- Write time to card
- File size
- Extra processing step

Most professional digital photographers use raw unless fast processing and transmission needed for press or similar

TIFF v JPEG

■ TIFF (PSD)

- Better quality with no image degradation
- Larger files
- Choice of 8bit or 16 bit
 - 16 bit much better (65000 grey tones compared to 256)
 - Not all Photoshop filters work with full 16bit TIFF
- Ideal for
 - larger quality prints
 - competitions or commercial purposes
 - Where lots of adjustment planned

■ JPEG

- Smaller file size which can be varied
- Quality degrades the more manipulation takes place
- Ideal for
 - Smaller prints
 - Web
 - Slide shows

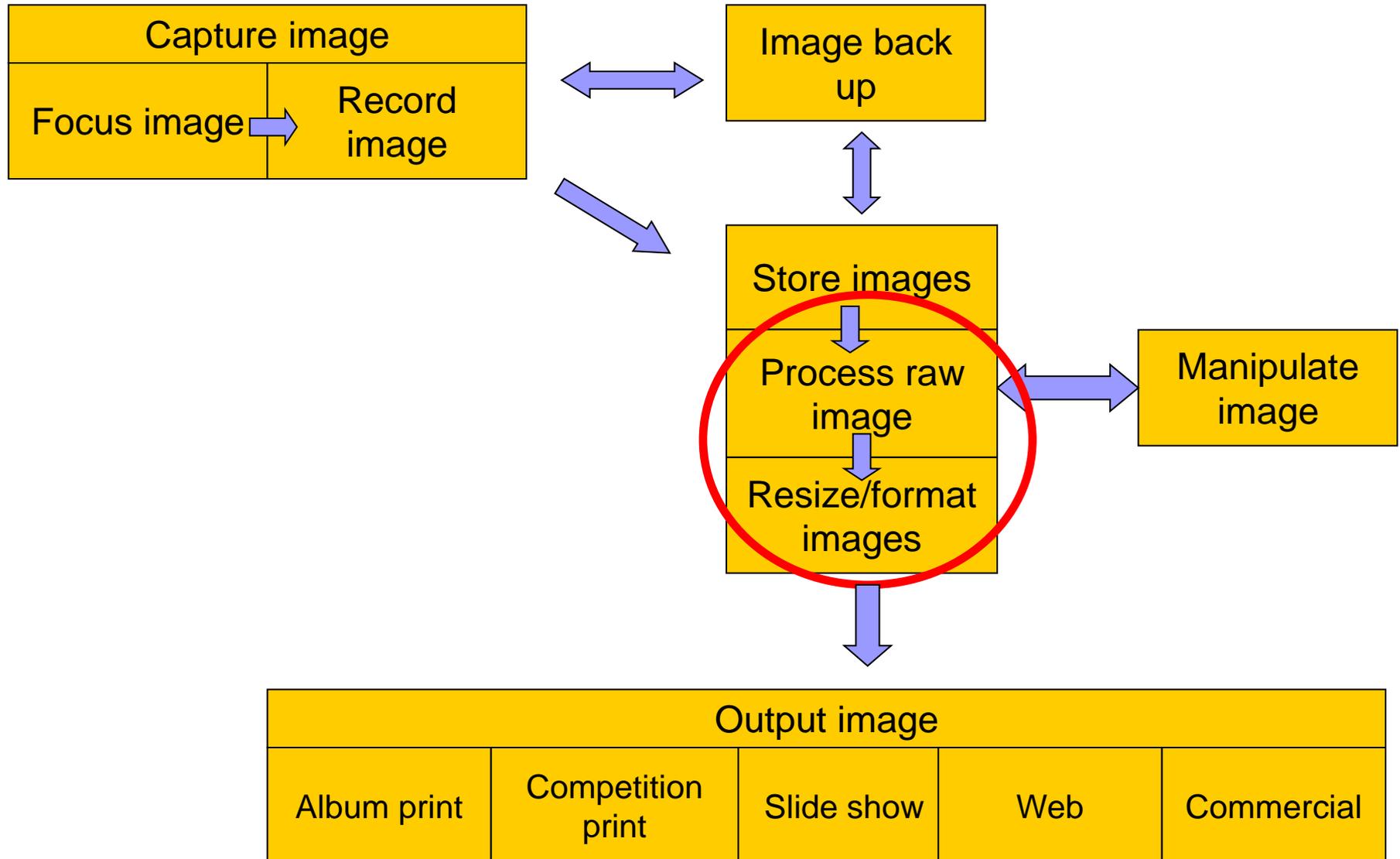


Raw Workflow

WORKFLOW IS IMPORTANT

- If you are processing lots of (raw) images it will take
 - Time
 - Processing power
 - Computer storage
- Think about the most efficient approach for you
- Different programmes will suit different people

COMPLEX DIGITAL WORKFLOW



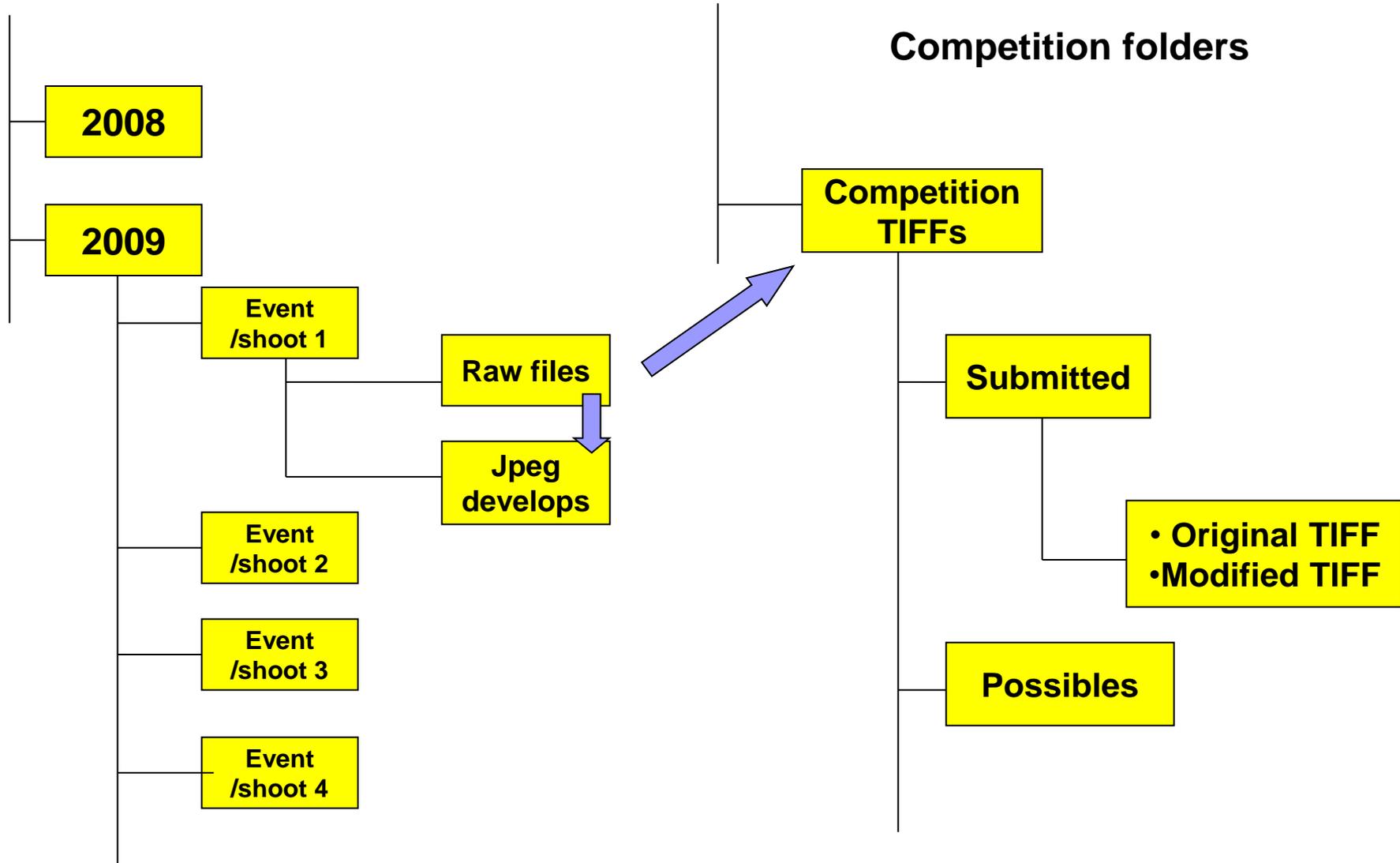
EXAMPLE- MY WORKFLOW

- Examine in raw
- Delete rubbish pictures
- Process keepers in raw converter (capture one)
 - Output majority as medium resolution jpegs
 - Family photos
 - Slide shows
 - Mostly without any further image manipulation
- Additionally process best images as TIFFS or large JPEGS into separate folder
 - Further image manipulation in PS if necessary
- Print using specialist printing software (Qimage)

MY STORAGE

Main image folders

Competition folders





Working with raw and raw conversion



THINGS TO LOOK FOR WITH RAW CONVERTERS

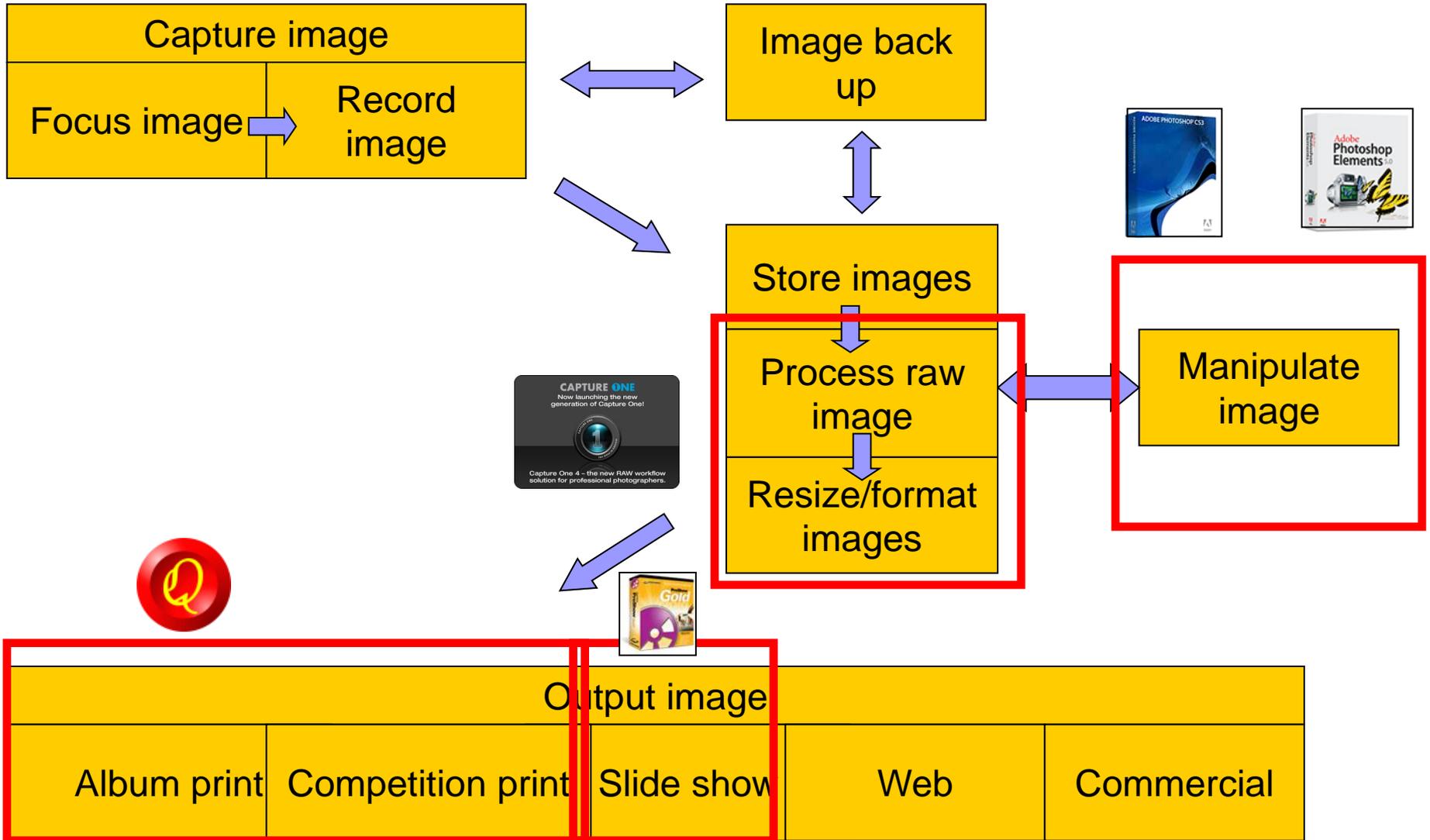
- Need to suit your style of workflow
- Balance ease/speed of use with complexity of image manipulation
- Some raw converters provide large number of options but can be complex and time consuming
- Others are too simple and allow only basic image adjustment
- Cost and alignment with your other software and hardware

INTEGRATED v SEPARATE RAW SOFTWARE

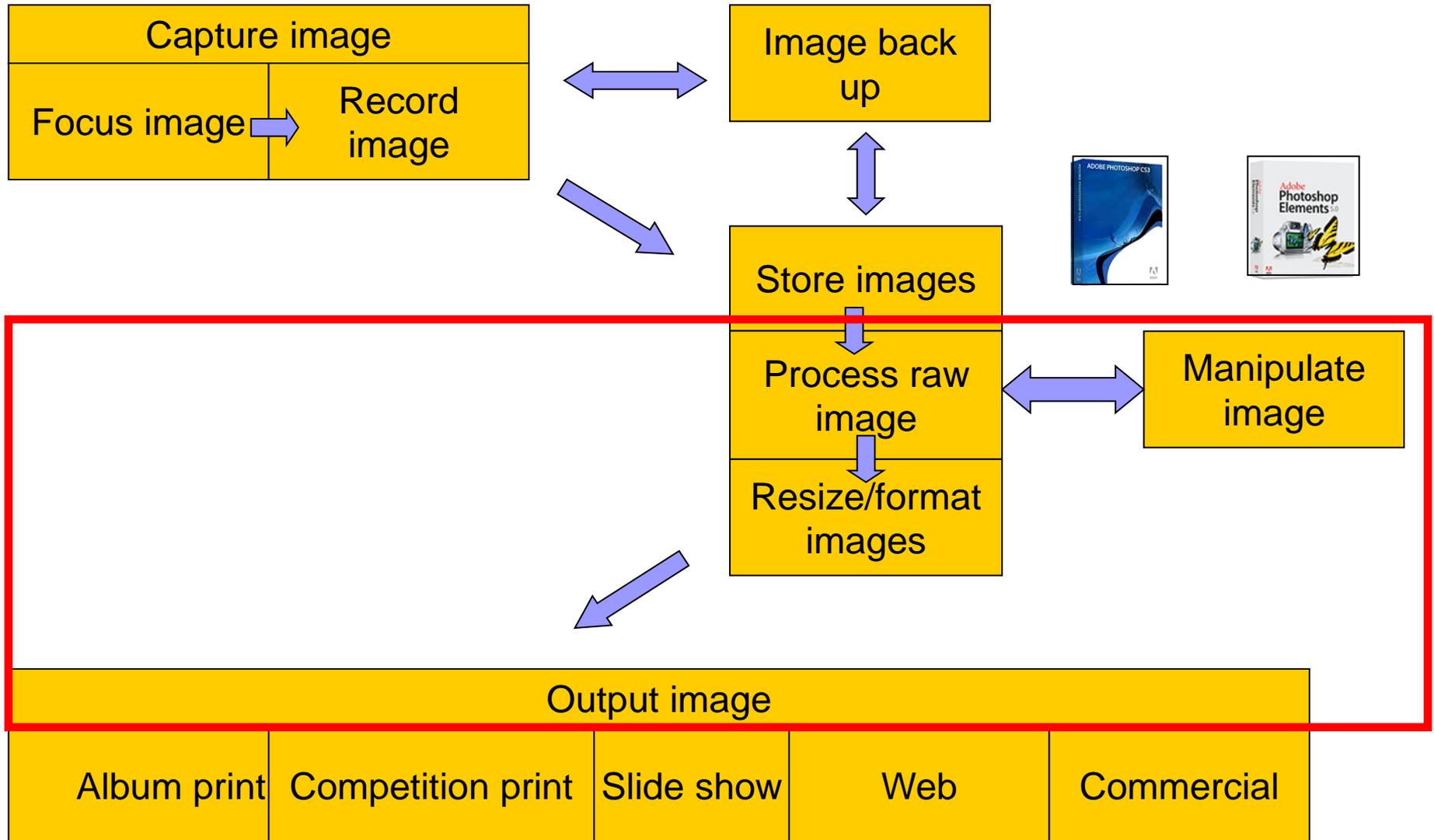
Separate raw converter

- Camera own versions (free with camera)
- Rawtherapee (free +donation)
- Capture one: £75
- Capture one pro:£229
- Nikon capture NX(2): £130
- Lots of others
- Raw converter plus image sorting and other workflow
 - Adobe Lightroom 2: £215
 - Apple Aperture (Mac only): £115
- Fully integrated
 - PS- Elements 7: £54
 - Photoshop CS4: £599

SEPARATE SOFTWARE



INTEGRATED IMAGE SOFTWARE



WHAT CAN RAW CONVERSION DO?

- Basically can change virtually any aspect related to the pixels and related histogram
- But not moving the pixels around or selectively adjusting pixels in part of the image
 - Note that this is now possible with Nikon capture NX and Phase One and lightroom
- Includes
 - Colour temperature/tint/colour balance
 - Saturation
 - Contrast
 - Brightness
 - Levels, exposure, curves
 - Cropping and rotation
 - Sharpness and noise reduction
 - Format and size of converted image
- Importantly any adjustment does not impact the original pixels



Do as much image manipulation as possible on raw file rather than jpeg/TIFF

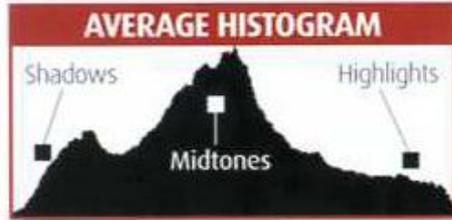
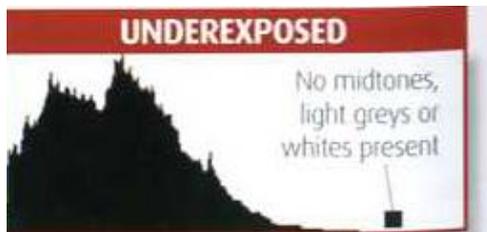


WHAT RAW CONVERSION CANNOT DO?

- Layers and layer masks
- Cloning
- Special filter effects
- Decent monochrome conversion

EXPOSURE AND OTHER CAPTURE SETTINGS

- The histogram is your friend
- Learn to read in the field
- Aim to get initial image as balanced as possible by checking histogram
- However can make substantial histogram correction later if take in raw



COLOUR TEMPERATURE & WHITE BALANCE

- Various options
 - Auto white balance
 - Fixed temperature e.g. 5200
 - Adjust balance depending on situation
 - Shoot grey card and adjust precisely later
- Whatever you choose you can alter subsequently in raw converter
- Avoids needs for colour filters (e.g. warm-up)



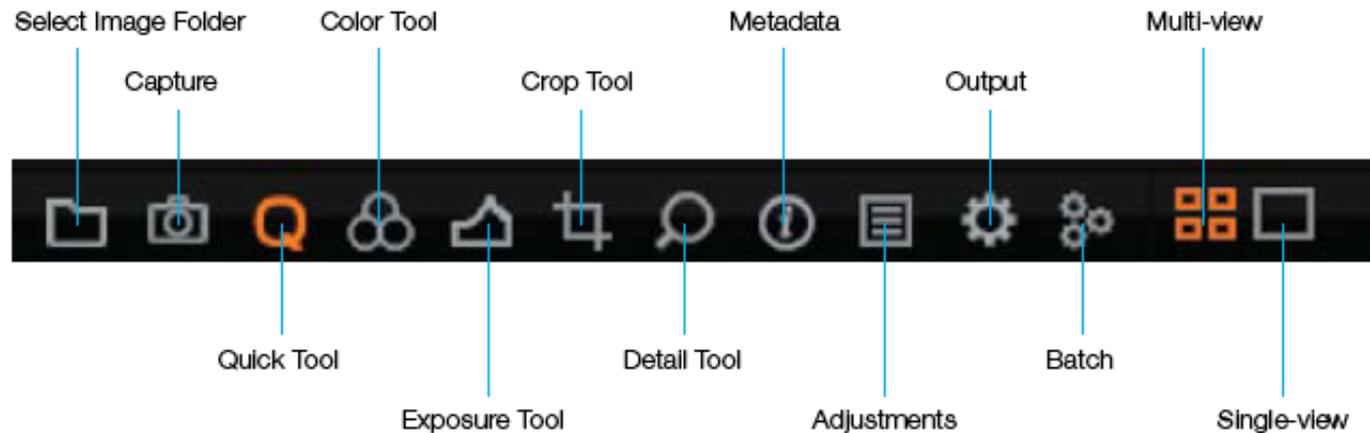
CAPTURE ONE RAW CONVERSION SOFTWARE



www.phaseone.com

TOOL TABS

Tool tabs



CURSOR TOOLS

Cursor tools

Select
Move To Trash

Pan

Crop

Pick White Balance
Pick Shadow Level
Pick Highlight Level
Pick Curve Point



Zoom In
Zoom Out

Straighten
Rotate Freehand
Rotate Left
Rotate Right

Copy Adjustments
Apply Adjustments



OTHER RAW CONVERTER DEMOS

- Canon raw
- Elements
- PS3
- Lightroom



THANKS FOR LISTENING
Hope it was useful