

Selecting a Camera and Imaging Station

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Leveraging Digitization Practices Across Multiple Domains Workshop

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Shopping List

- **Copy stand**
- **Camera**
- **Lens**
- **Cables**
 - AC adapter
 - Long USB cable
- **Computer & Monitor**
- **Software**
 - Camera control software
 - Image management software
- **Lights OR Photo-eBox Plus**
- **Miscellaneous**



Copy Stand: Kaiser 205512 RSX



Photo eBox Plus

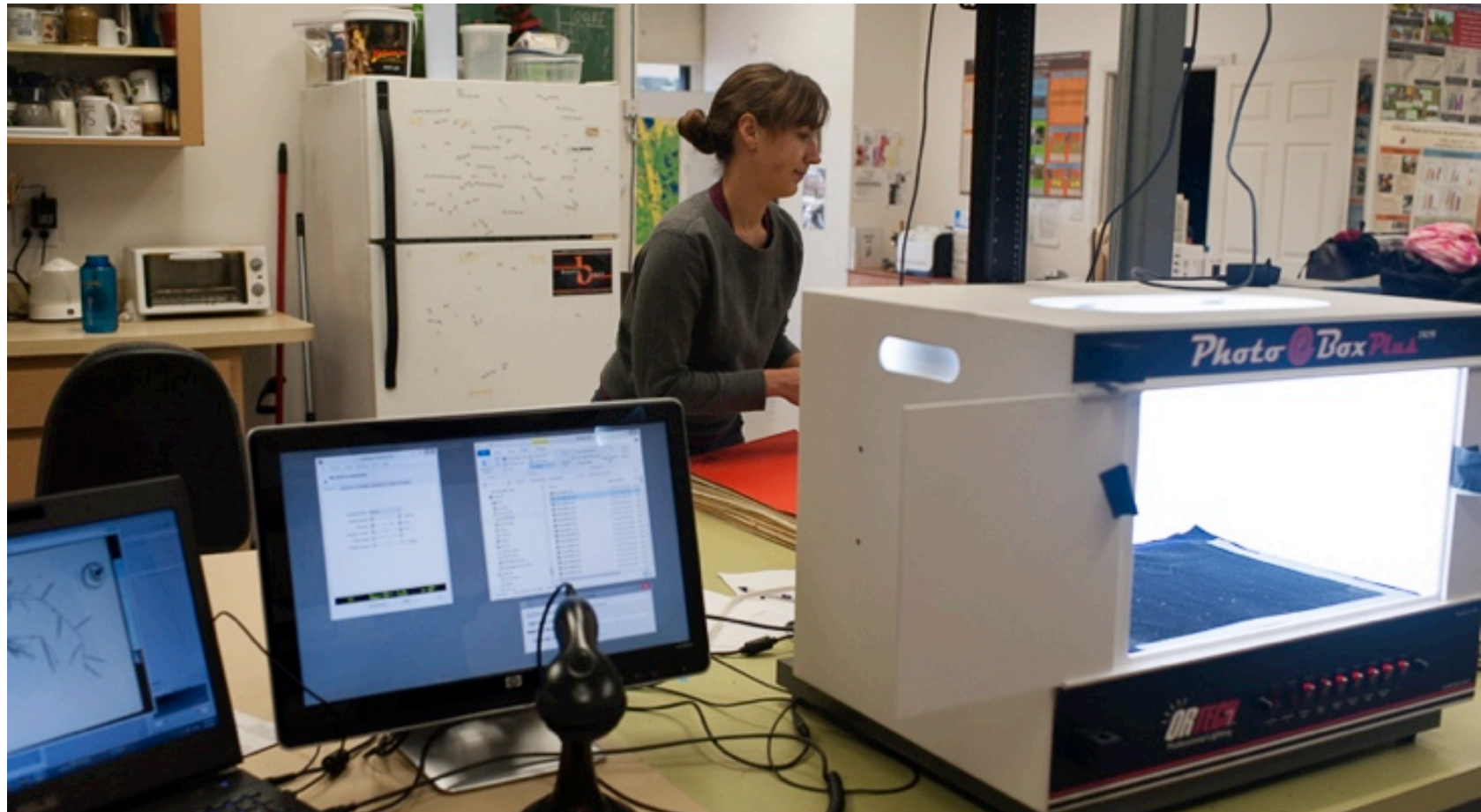


Photo eBox Plus in action



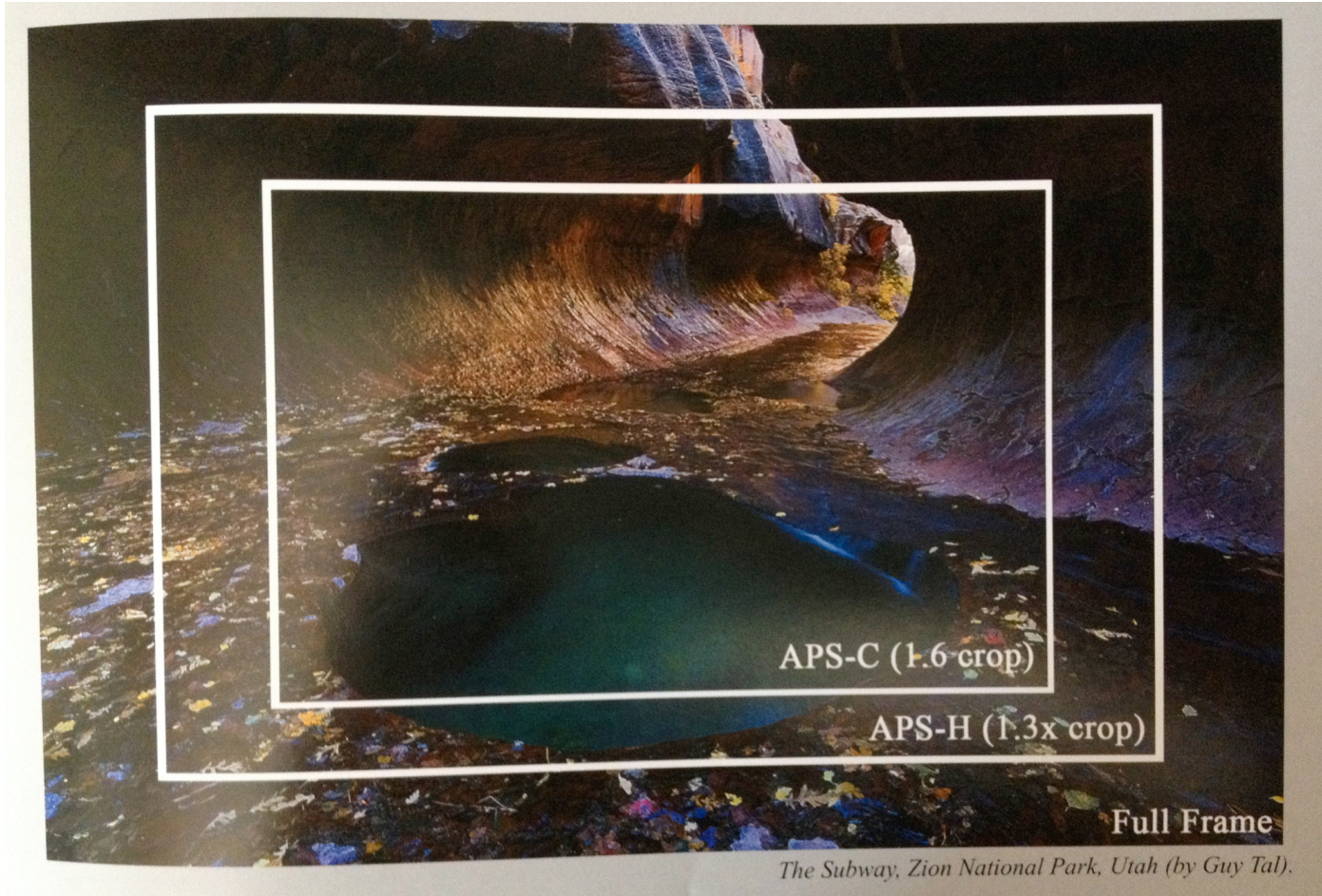
Work Environment



Copy stand with 2 strobes

Camera – Canon or Nikon Full Frame, at least 18 MP





Full frame versus cropped frame

Lens 50 – 60 mm macro

Goal: Good 1:1 fidelity

Macro photography lenses have extra close focusing ability



Bad lens / good lens

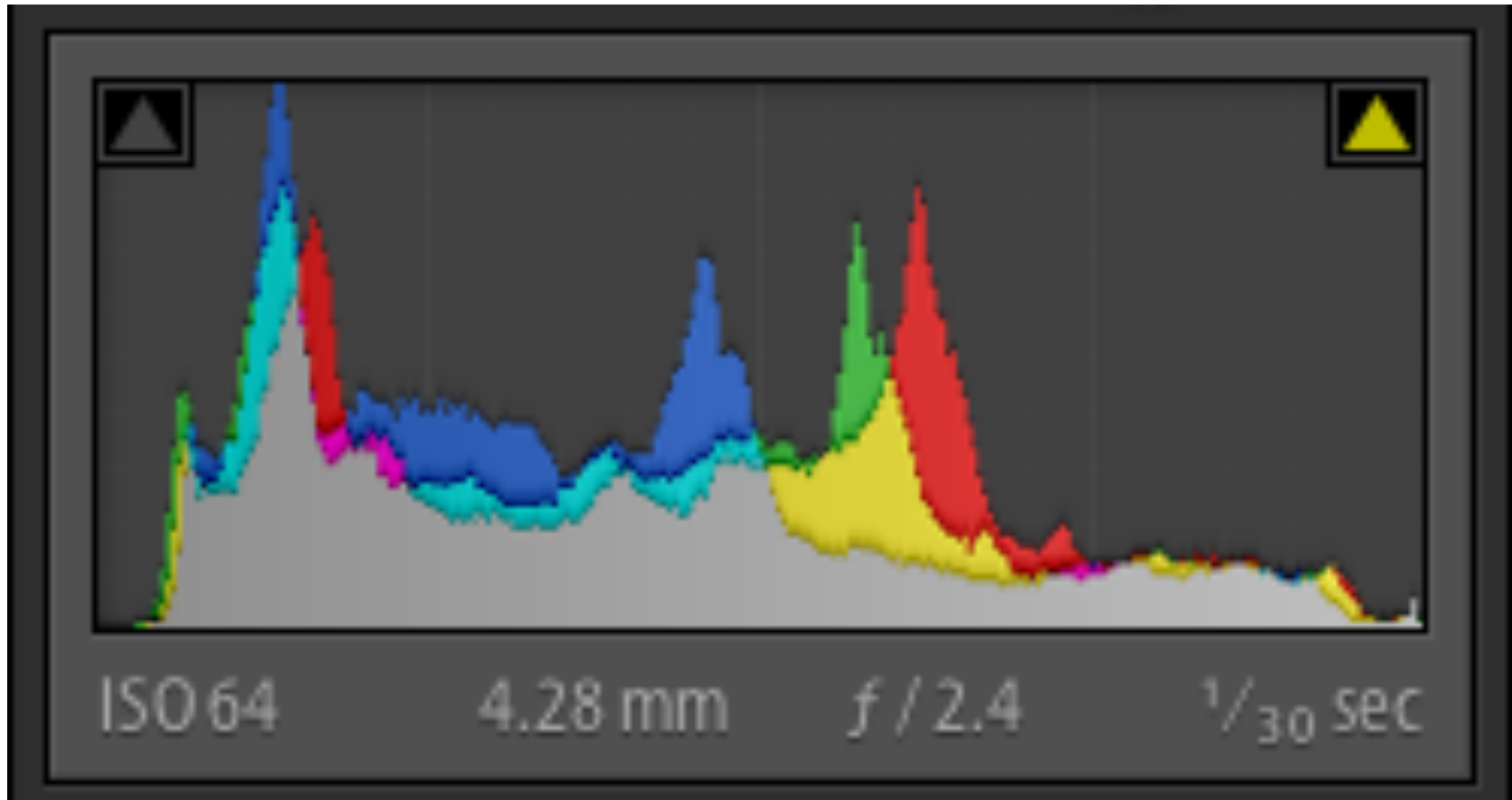


Cables

- AC adapter – replaces dependence on camera's battery
- Camera control – tethering camera to computer, using Live View

Key Photography Terms

- Image Goals
 - Exposure – well balanced
 - White balance – accurate light, no colour cast
 - Focus - sharp



Exposure: combination of ISO, speed and f-stop

Use the histogram

Camera Settings

- Put the camera in manual mode (not program, shutter, speed, aperture, etc.)
- Set matrix metering (not spot)
- Place lens in auto focus
- Exposure
 - f/stop between f/9 and f/11
 - ISO = 100
 - Shutter speed = 1/60 sec.
- White balance: auto, but depends on lights
- Set image quality to Raw
- Move camera up and down on the copy stand until in Live View the subject fills the frame and is in focus

Miscellaneous Equipment (1)

- Spigots (spacers) and copy stand adapters
- Barcode reader
- External hard drive
- Hot-shoe bubble

Miscellaneous Equipment (2)

- Extra bulbs
- Ruler
- Colour checker
- Lens cleaning supplies
- Roll of 1” gaffer tape
- Monitor colour correction software

Image Management Software

- Adobe Lightroom – convert to DNG in Lightroom

Camera Control Software

- Canon
- Nikon
- Third party

End of Presentation

Further slides give examples of using the two main camera control packages

- **Additionally, there is a wealth of knowledge here:**
https://www.idigbio.org/wiki/index.php/Digitization_Resources_-_Imaging_Documents_and_Resources
- **See here**
<https://www.idigbio.org/content/idigbio-image-file-format-requirements-and-recommendations>
for the iDigBio ‘fit for use’ imaging standards
- **See here**
https://www.idigbio.org/wiki/images/8/86/iDigBioImagingGeneralEquipmentRecommendations1_0.pdf
for a shopping list of photo digitization equipment

Thank you for your attention



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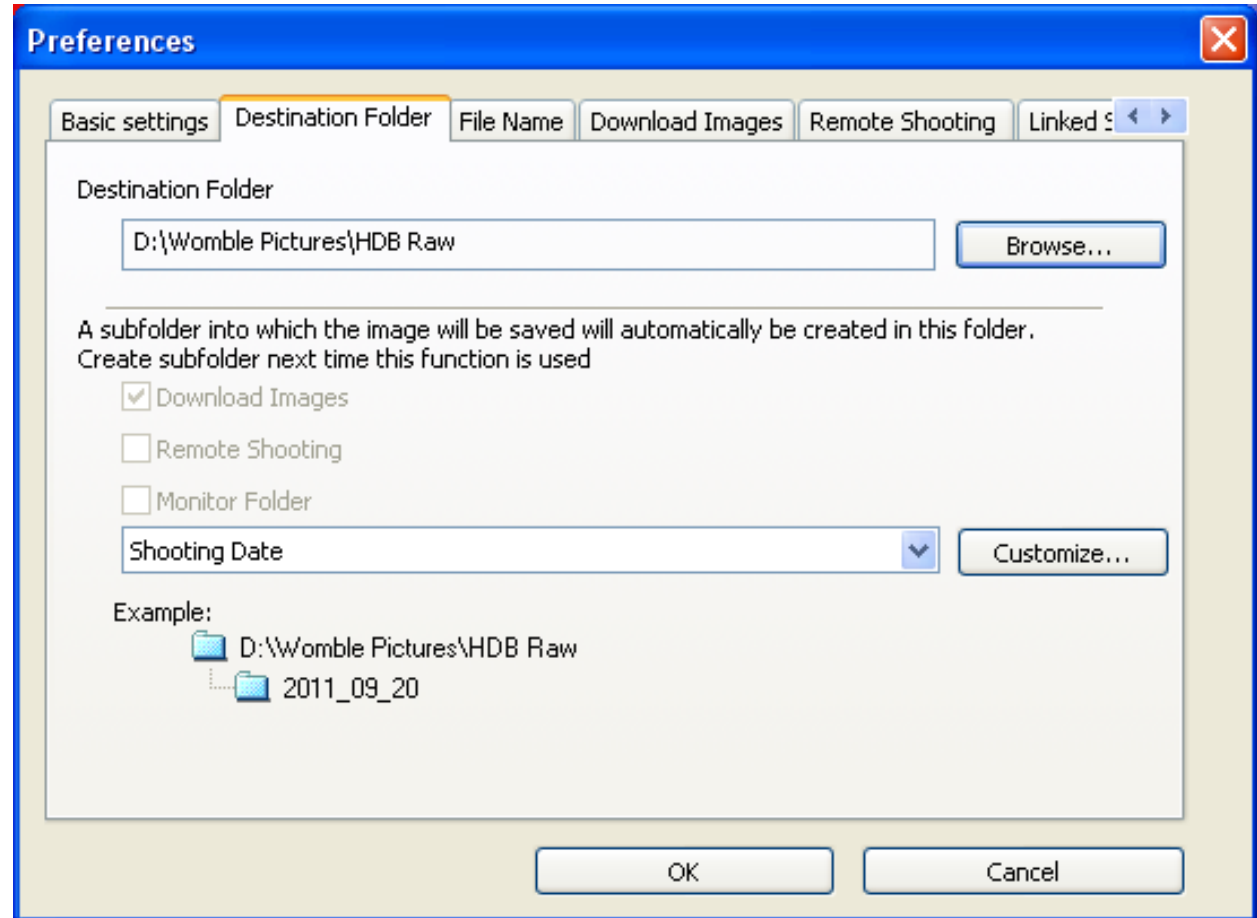
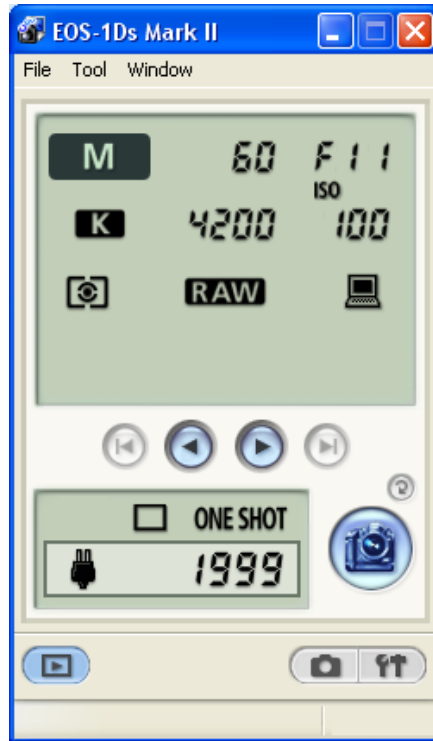
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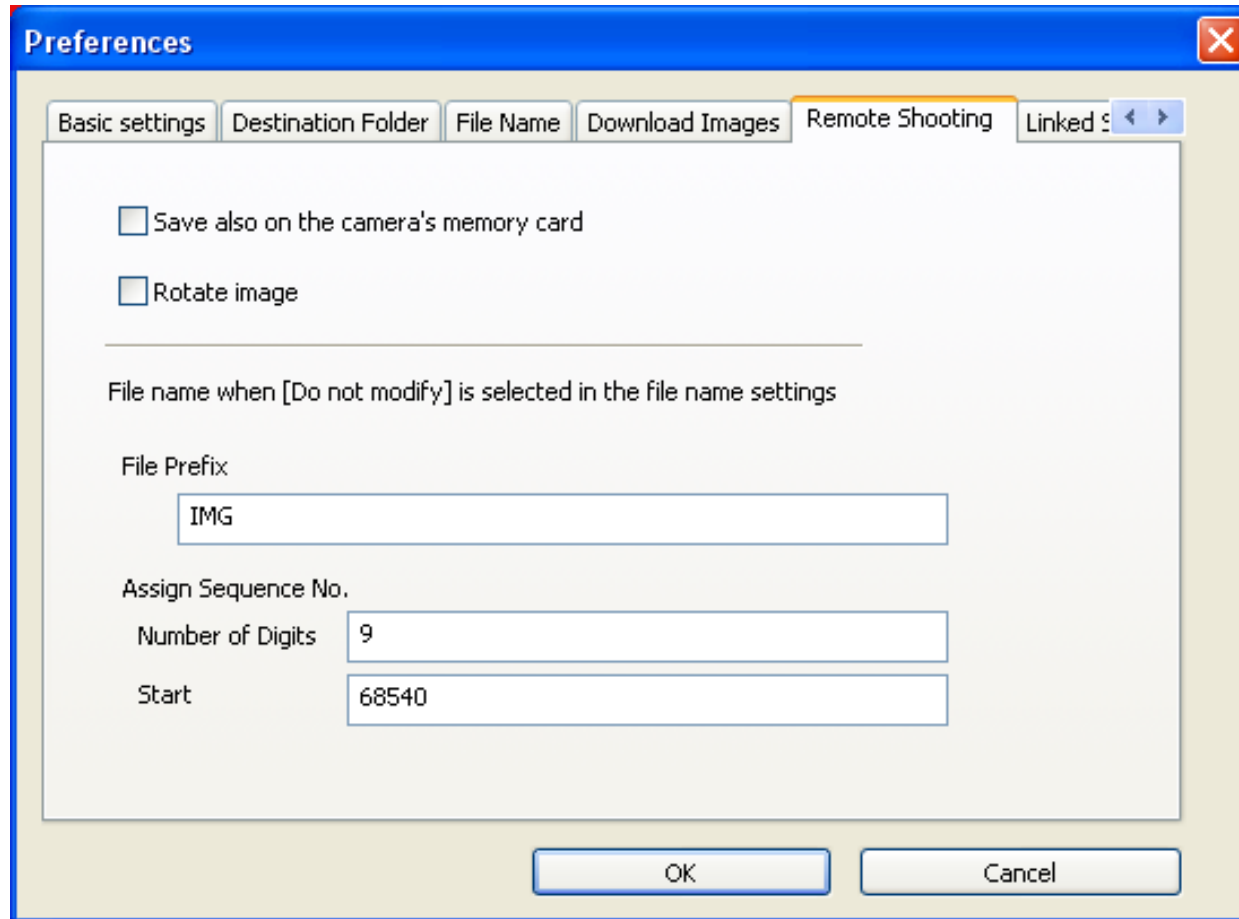
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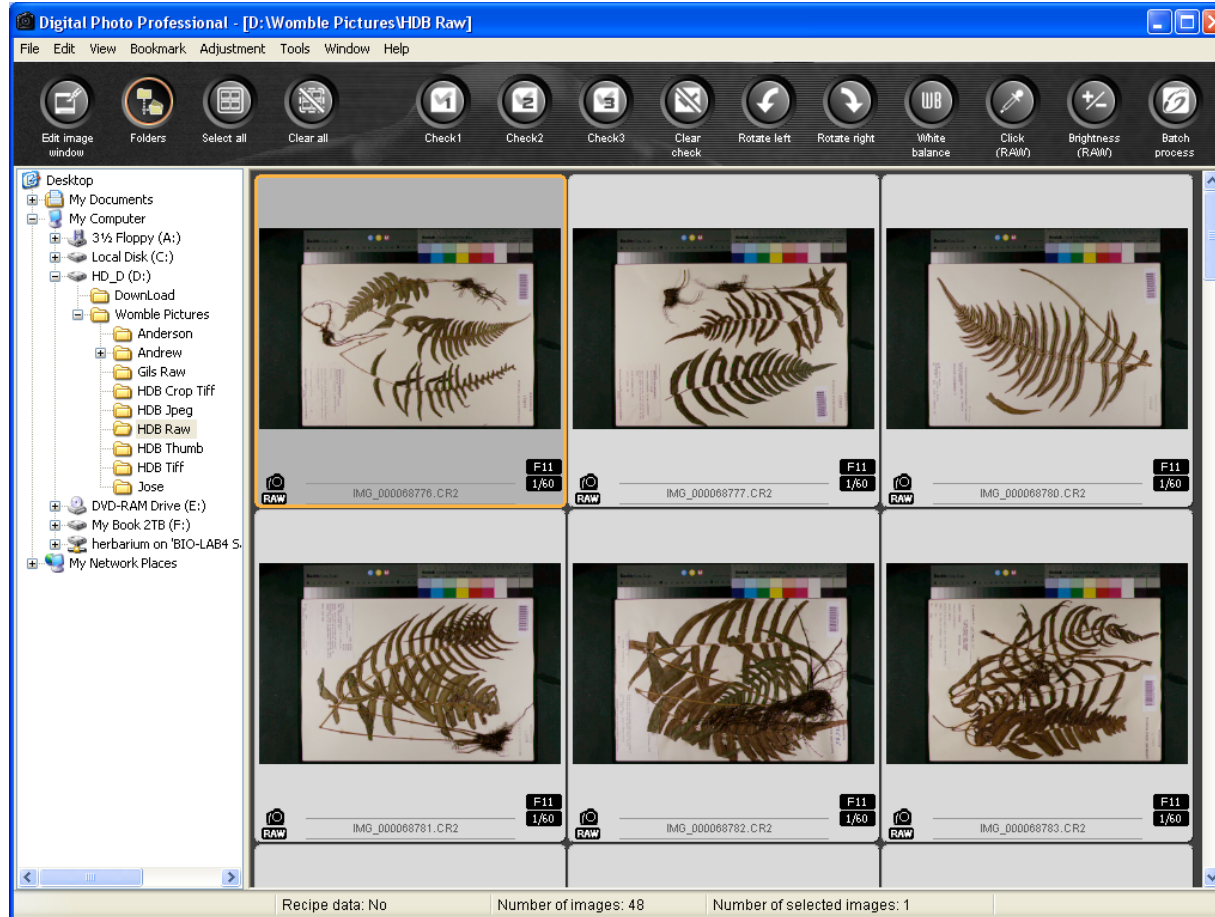
Canon EOS (for tethered shooting and control of the camera



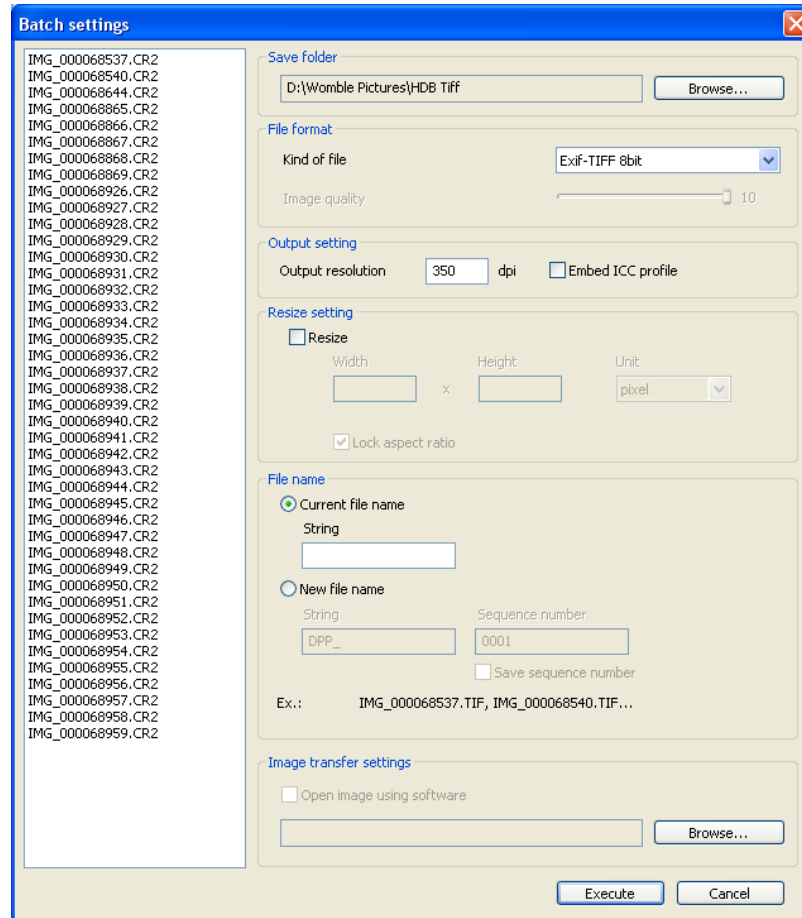
EOS Utility



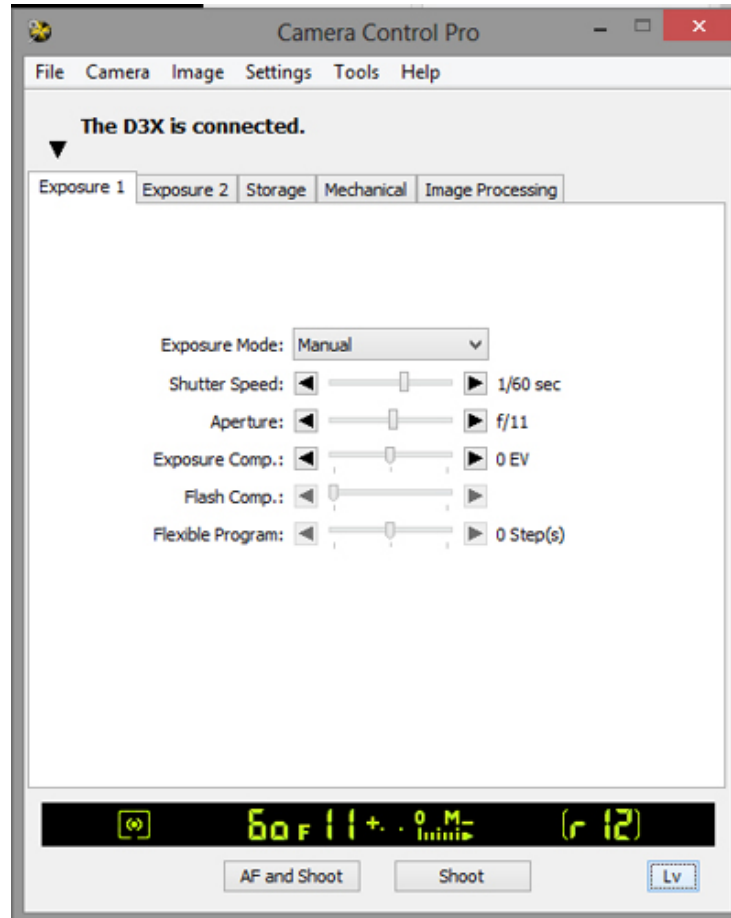
EOS Utility



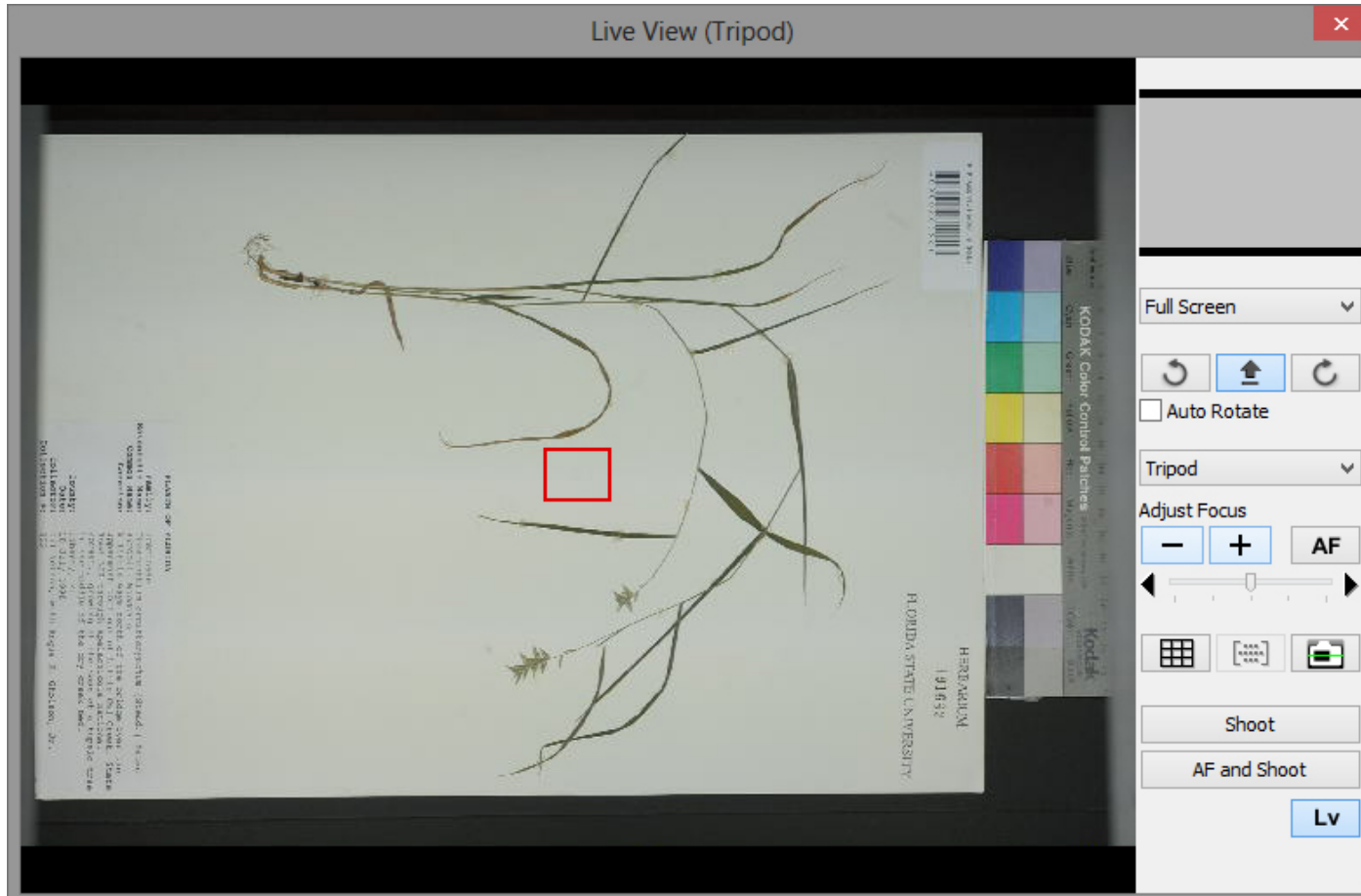
Canon Digital Photo Professional



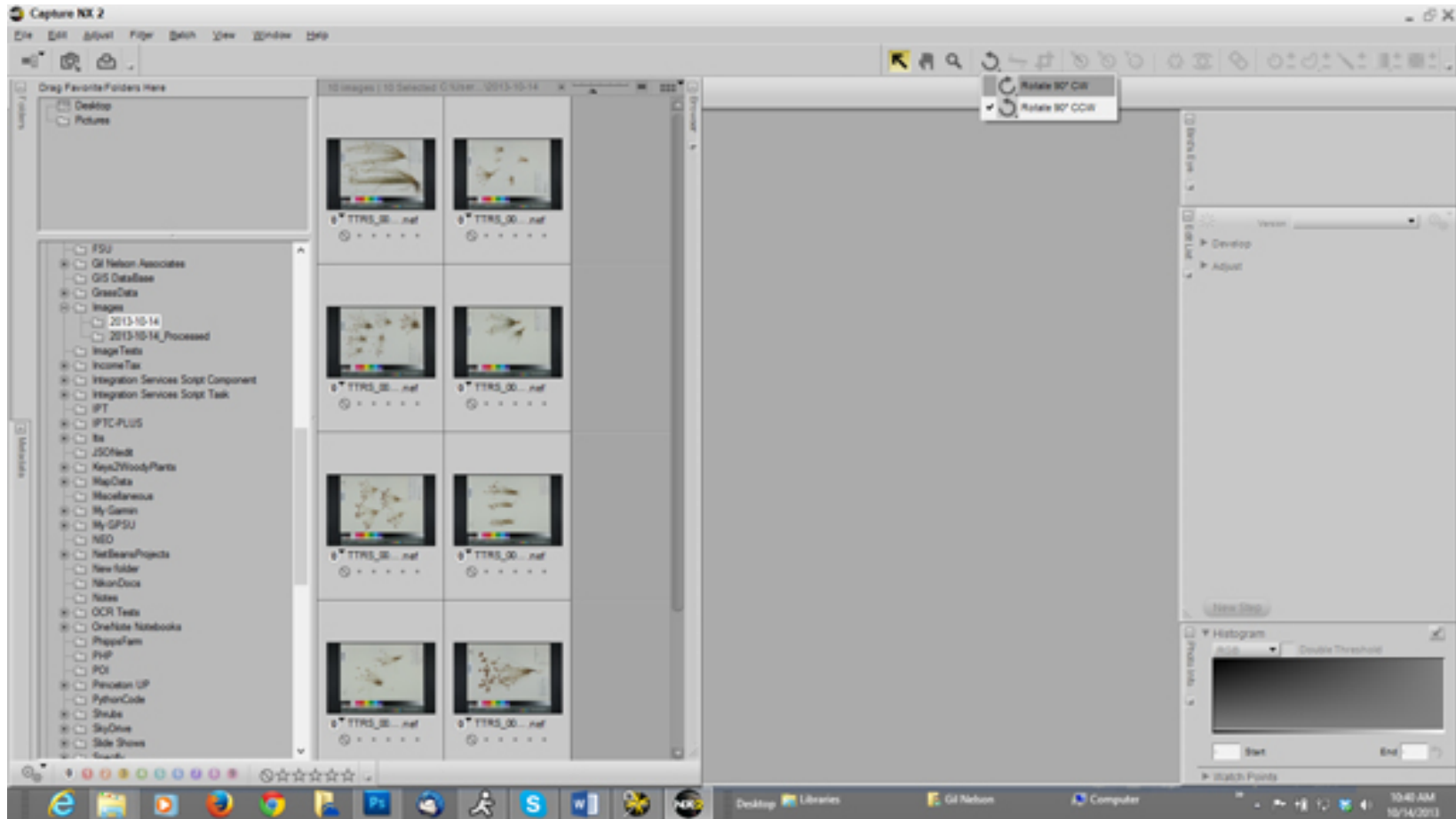
Canon digital Photo Professional



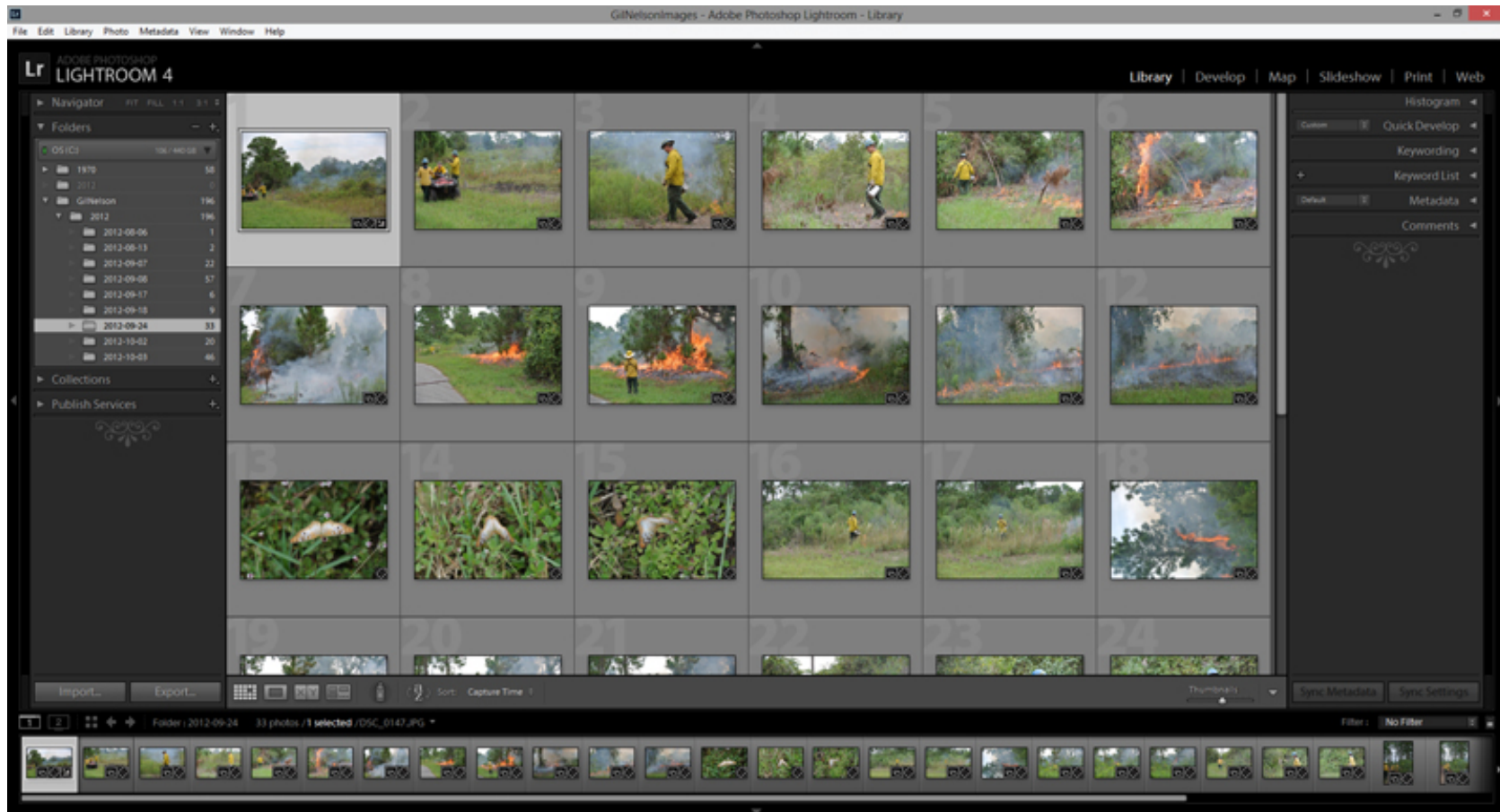
Nikon Camera Control Pro 2



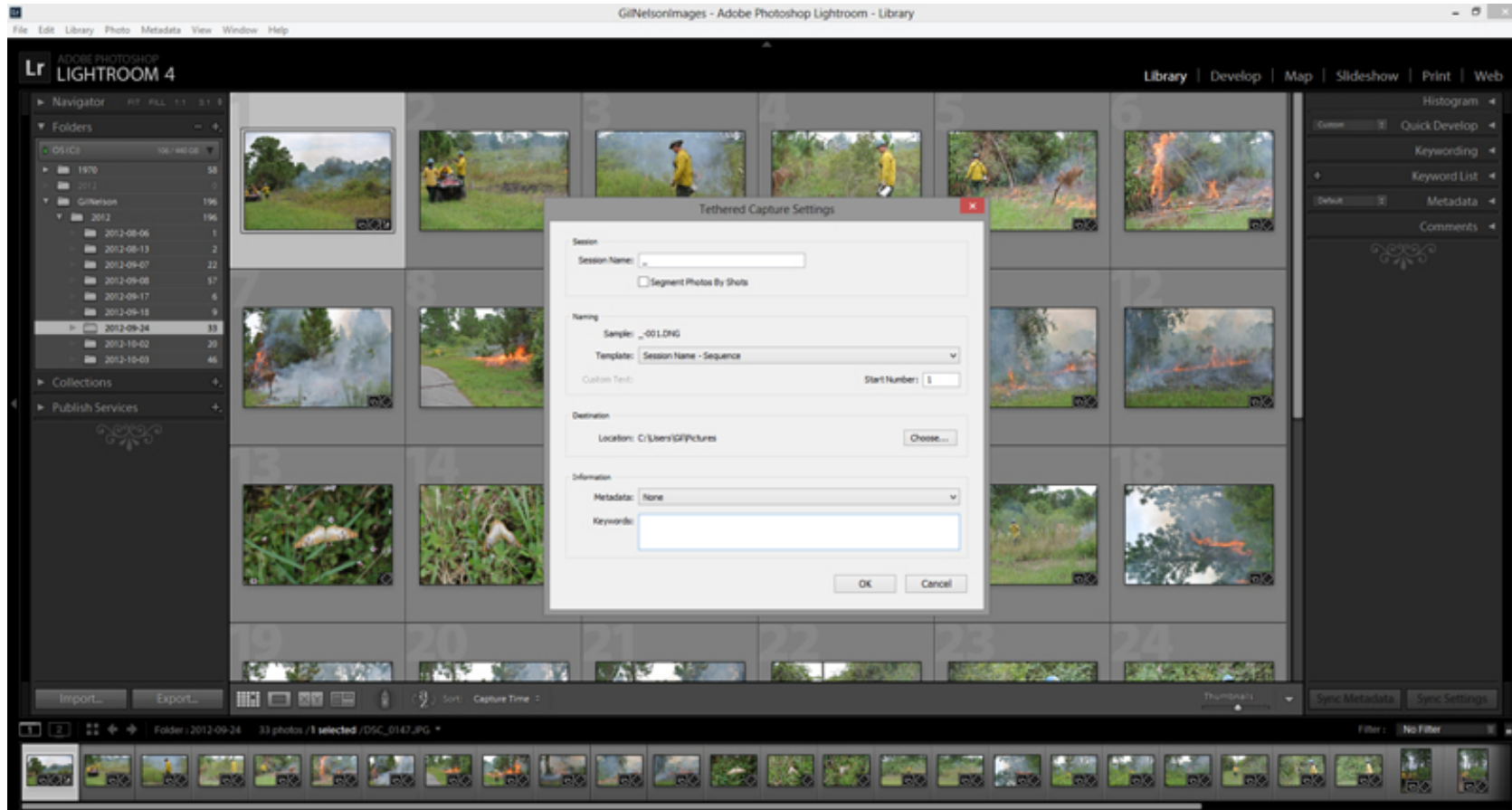
Nikon Camera Control Pro 2 – Live View



Nikon Capture NX2



Adobe Lightroom



Adobe Lightroom Tethered Shooting