

## 06.DarktablePSGimp

Friday, September 2, 2022 3:27 PM

### Today:

Photo Hardware resources  
Darktable/Photoshop/Gimp intro  
Lenses?

### Admin:

You should have gotten an email from CATME with the names of two POTENTIAL teammates and the times you have available in common. Check the times to see if you are really available when they are. Somebody usually reports an error at this point and needs to change their data in CATME. This will mean I need to shuffle people around and remake the teams. Let me know ASAP if you need to change your schedule and I will remake the teams, Saturday morning at the latest. Even if you don't have an error, your teammates may change when I remake the teams, so please be patient.

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### More Photography Hardware Resources

<https://www.colorado.edu/libraries/services/borrowing-university-libraries-materials/technology-other/multimedia-equipment-lending-library>

Dslrs, video cameras, tripods, table tents etc for student to borrow  
ITLL 2 week checkouts

### Rent macro lenses and other equipment:

Pro Photo Rental on Arapaho

<http://prophoto rental.com/>

Canon, Nikon, Olympus bodies and lenses. Also used equipment for sale.

Pro Photo Rental, Inc.

1644 Conestoga St, Suite 5

Boulder, CO 80301

### Used equipment shops

Victory Camera: Used and Vintage, buy sell trade.

<https://victorycamera.com/>

2875A 28th Street

Boulder, CO 80301

(720) 379-7789

Mike's Camera: Mostly new, some rentals, some used. Repairs. Will match online prices.

2500 Pearl Street

Boulder, CO 80302

Phone: (303) 443-1715

Email: store1@mikescamera.com

<http://mikescamera.com/>

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### Post Processing

All images will benefit from cropping and/or contrast & brightness tweak.

Art/Sci line: Edit to enhance physics, not obscure it. With that first, aesthetics next.

Most image processing software will be adequate for this course: crop, brightness, intensity, spotting

Quick poll:

I am familiar with

- A) No image processing program **37%**
- B) Photoshop
- C) Instagram image editor **30%**
- D) Gimp **-**
- E) MS Photos edit function. **-**

Topics in Darktable that we'll cover today:

1. File formats
2. Desktop nav
3. Contrast
4. Crop tool
5. Retouch/Clone stamp
6. Filters, sharpen

## 1. File Formats

	Still images, 3 files			Video		
	1) Original = straight from the camera. Do not edit or change file type	2) Edited Archival	3) Edited for posting	1) Original clips	2) Edited Archival	3) Edited for posting
<b>Submit to</b>	Canvas	Canvas	Flowvis.org	None	Canvas	Youtube or Vimeo
<b>File type</b>	As shot, preferably in camera raw format: NEF, CR2, HEIC etc.	PNG. Choose zero compression.	.jpg, with at least 90% quality	none	Mpeg/mp4 Must include title clip	mpeg. Must include title clip
<b>Resolution</b>	As shot, as high as your camera is capable of	As shot, minus cropping	Max 1300 px wide	none	Maximum, as shot	Max is recommended

Required in Title clip:  
 Your name  
 Date  
 Collaborators  
 Music credit  
 Optional: video title, course name etc.

If assembling a video from multiple still images, upload a representative raw image along with edited final video.

Why does archival version have to be non-lossy?

Jpg loss example:

[http://cscie12.dce.harvard.edu/lecture\\_notes/2011/20110309/slide42.html](http://cscie12.dce.harvard.edu/lecture_notes/2011/20110309/slide42.html)

Shows effect of low 'quality' settings. Similar artifacts to repeated compression cycles.

Most DSLRs and mirrorless offer a camera 'raw' or native format: NEF, CR2 etc. These contain the maximum information. Use this if available!

Most other cameras store images as jpg only. Every time you edit and then save a .jpg, it compresses the image again, and you lose information because jpg compression is *lossy*. Open in whatever, then edit and **do not store as jpg again until posting!**

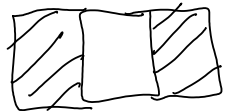
Instead, store as a non-lossy format: PSD, Photoshop's native format or .XCF, in Gimp. Darktable doesn't affect original images, and only stores your edit information until you export at the end.

DON'T use *Photoshop* RAW. Metadata is lost; images can't be opened.

Camera raw formats, like NEF, CR2 etc, are good for original images.

HEIC is maybe lossy. Maybe not.

For uploading to flowvis.org & Wordpress: YES save as jpg, max width 1300 px for landscape image. For portrait orientation image, make into a landscape format: save as 1100 wide by 900 high, with extra space on sides in a dark neutral gray. Our Wordpress theme, Impreza is 'responsive', resizes image for each device, but makes portrait orientation images too large and low res when selected as featured image for a post.



Gimp and older Photoshop cannot open camera raw formats. You will need a conversion program of some sort.

Darktable can open camera raw formats, even new ones. Exception: HEIC, found on cameraphones. You'll need a conversion program to prep for an editor. Try Irfanview.

Do not import from camera directly into a photo program; it will convert files automatically, and you could lose the original metadata. Instead, download to a file first. Try plugging your camera or SD card from the camera into the computer, then drag files from camera to hard drive.

hard drive.

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Darktable live demo. See video recording.