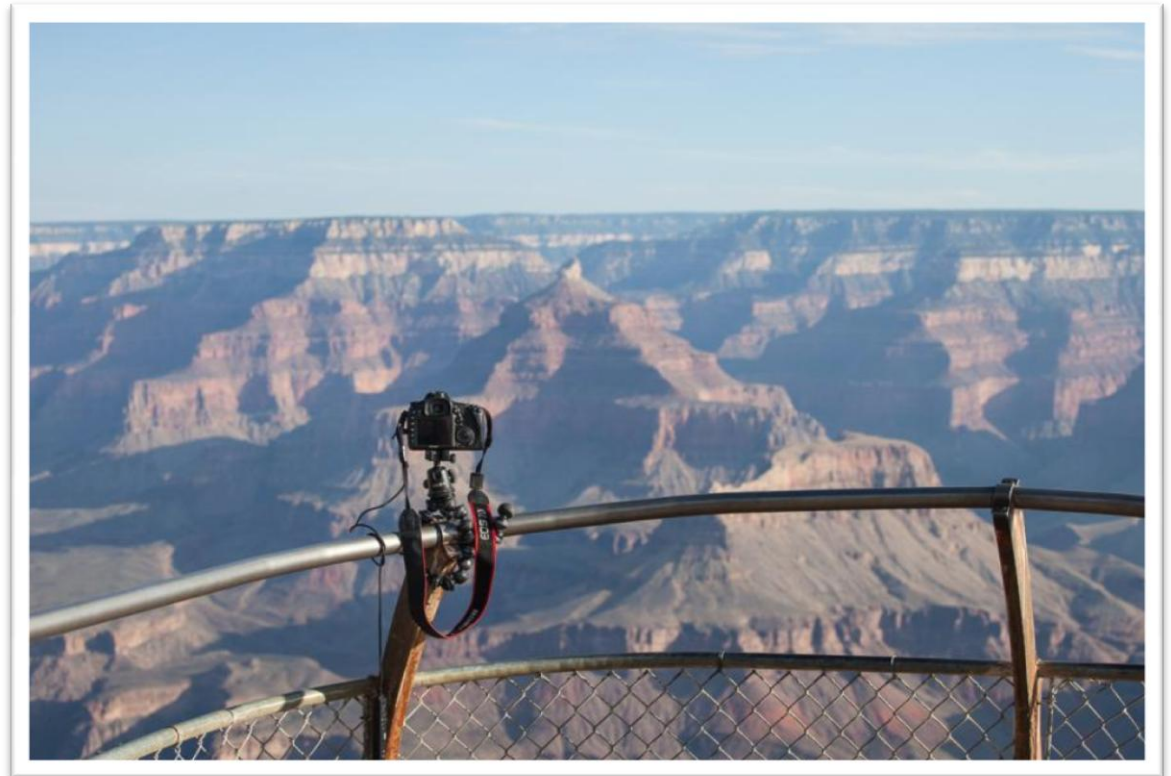


A BRIEF INTRODUCTION TO

TIMELAPSE PHOTOGRAPHY

WITH YOUR DIGITAL STILL CAMERA

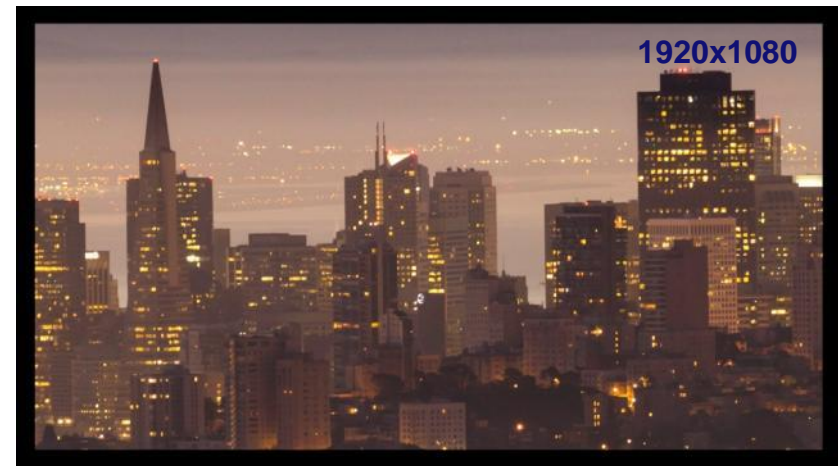
By Joost Daniels,
For the LBNL Photoclub



What is a timelapse?

- **Still images combined as frames in a video**
 - Equivalent to real-time video sped up ~10 – 10,000 times
 - **EXAMPLE**

	Photos	Timelapse video
Frame size	12 – 36 MP	2 MP (FullHD)
Aspect ratio	4:3 / 3:2	16:9
Frame rate	-	24 – 30 fps



What do you need?



- Digital camera with remote trigger option or built-in timelapse option
- Tripod
- Intervalometer (<\$20), built-in for some Nikons
- Image / video processing software
- Time, patience and hard drive space!



How do you take a timelapse?

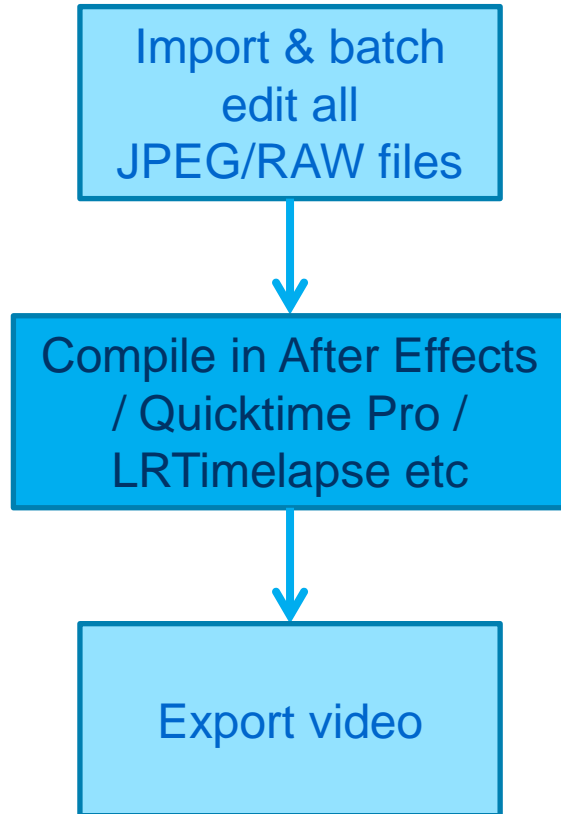


1. **Compose your shot**
2. **Focus and set to Manual Focus**
3. **Set the exposure in Manual mode (no Auto ISO!)**
4. **Fix your aperture (lens-twist for Canon DSLRs)**
5. **Set your intervalometer to 1 - 60 second intervals**
 - **Clouds: 1 - 4 s**
 - **Crowds: 0.5 - 2 s**
 - **Moon/sunrise: 3 – 10 s**
 - **Starry sky: 10 - 60 s**
6. **TESTSHOT! → review exposure and focus**
7. **Start timer, take at least 300 shots for ~10 seconds of video**

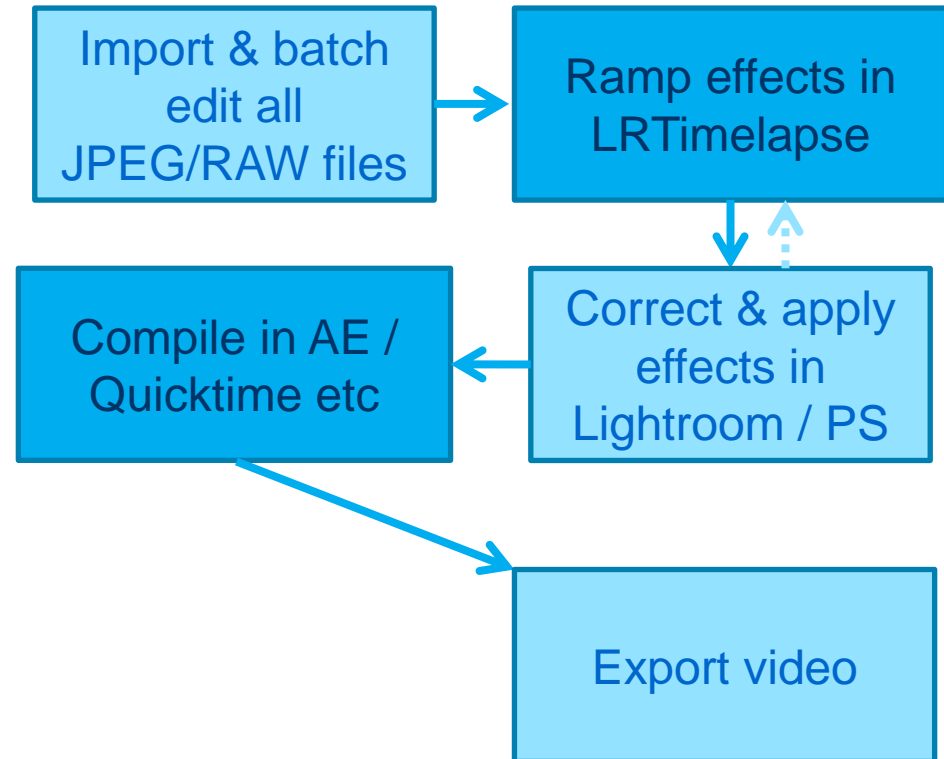
Note: for longer timelapses, make sure you have a large memory card and a fully charged battery. Turn off LiveView for better battery lifetime.

Timelapse processing

SIMPLE



ADVANCED (with LRTimelapse)



- FullHD recommended export setting: 1920x1080, square pixels, progressive, MP4, H.264 codec, 29.97 fps, bitrate 25Mbps or higher

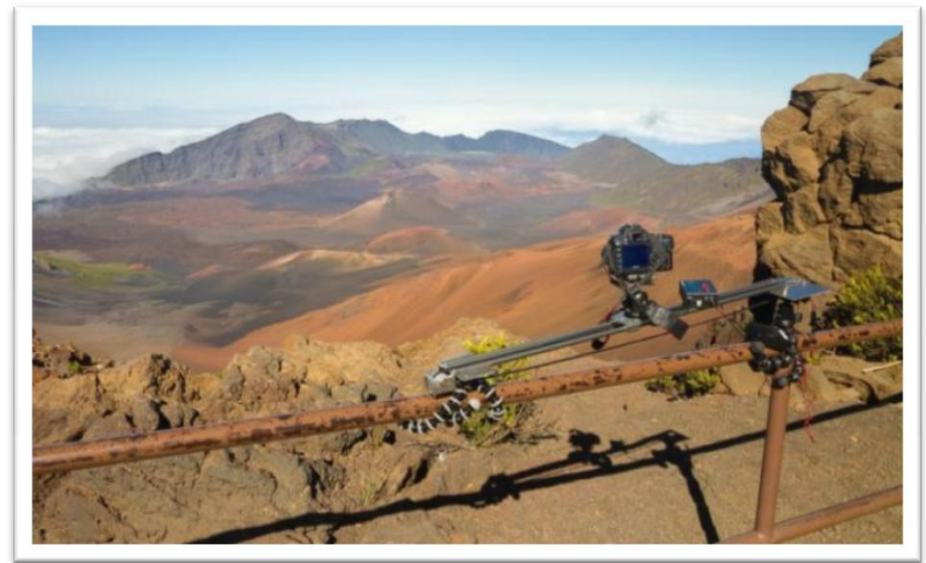
Tips & tricks for smooth-looking timelapses

- Electrically disconnect the lens (Canon) by pressing and holding depth-of-field preview button while twisting off lens a few degrees
- Shoot in RAW
- Preferably pick an exposure time of at least 1/3 of the interval time
- Once set up, DON'T touch your camera
- Keep unwanted people out of your frame
- Start with a large, empty memory card and full battery
- Remove birds from images before rendering video
- Use GBDeflicker / LRTimelapse / ... to smooth flickering videos or blend frames in video software
- Set noise reduction on individual images to high



Spicing it up

- Add panning and zooming in video software
- ‘Holy grail’ timelapses (night→day or day→night)
 - Change exposure by changing exposure and correcting jumps in post (**VERY** time-consuming) ([example](#))
 - Change exposure gradually using BULB exposure
- HDR timelapses ([example](#))
- Motion-controlled timelapses
 - Sliders ([example 1](#), [2](#))
 - Moving heads
- Hyperlapses
 - Manually move tripod between exposures for large movements

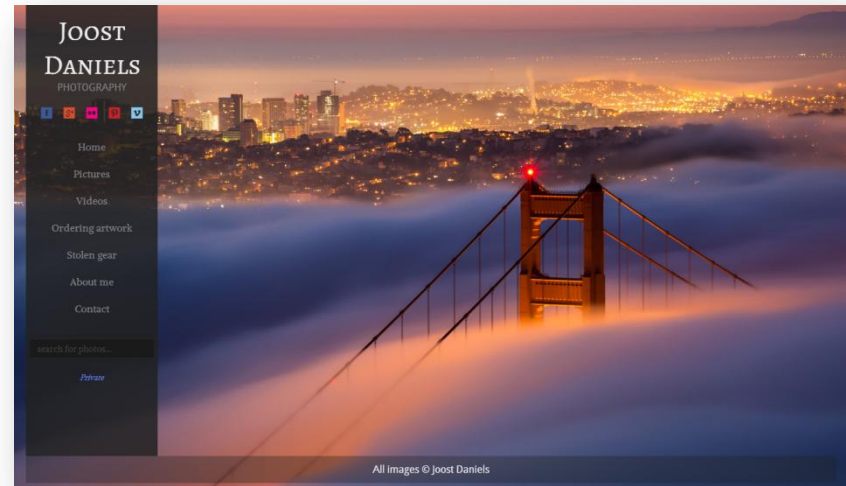


Software

- **Image processing (optional)**
 - Lightroom / Photoshop / iPhoto / Aperture
- **Compiling images**
 - Time Lapse Assembler (free)
 - VirtualDub (free)
 - Windows Movie Maker (free)
 - Photolapse (free)
 - GoPro Studio Edit (free)
 - LRTimelapse (free limited evaluation version)
 - After Effects (\$\$\$)
 - Photoshop (\$\$\$)
- **Editing video (optional)**
 - After Effects (\$\$\$)
 - Premiere Elements (\$\$) / Pro (\$\$\$\$)
 - Final Cut (\$\$\$)
 - iMovie (\$)
 - Windows Movie Maker (free)



Thanks for watching!



Want more?

- More videos and many images on my website www.joostdaniels.com
- Or follow me on [Facebook](#), [500px](#), [Vimeo](#), [Flickr](#), [Google+](#), [Pinterest](#)