

Stacking is taking tens or hundreds of photos to decrease noise and to bring out more details, to stack these photos use Deepskystacker, tutorial here <https://youtu.be/KPnCGsnyOsw> Another thing is that this software uses calibration frames aka darks, flats, and bias frames. These frames correct any deformities in photos like noise, dust, and vignetting. Watch here <https://youtu.be/hz7ryk4qDrg> (after watching this video here's a big tip for taking flats frames, put a piece of printer paper on top of the camera while it's looking straight up and take a phone and put it at full brightness with white background and take photos) With calibration frames take 25 photos of each type.

On Mac use Siril an alternative to deepskystacker to can download it here <https://www.siril.org/2020/09/22/siril-1-0-0-beta2-testing/> Here's a tutorial as well <https://youtu.be/ambUmZLOeSs> It can also remove gradients by using the photometric color calibration and background calibration Skip to 6:59 on the video above to learn the processing tool but watch the entire thing to learn how to stack

For landscape astrophotography you can use Sequator download here <https://sites.google.com/site/sequatorglobal/download> its much easier to use and supports landscape photos. (Btw In the software, it uses noise images which are just dark frames, and vignetting images which are just flat frames it doesn't support bias frames) It can also boost starlight, remove gradients and remove distortion in images! Here's a good tutorial <https://youtu.be/MoaqgbQsAms>

Photo Editing Applications

One free editing application is gimp. Tutorial here dude uses deepskystacker and gimp <https://youtu.be/ZuJaEBtSxRs> the first video of it which talks about the gear, planning, and prep of shooting the images is here in which he only uses a camera and tripod! https://youtu.be/zRp3Qu_0K6o

And for photoshop here's a good video https://youtu.be/C3Fd2Nc_WYw on using levels, and curves adjustments, and much more plus sample images.

A very basic workflow is using deepstacker/siril/seqautor to stack then using Siril to remove gradients and stretch then sending it to photoshop/gimp do a color balance, s curve, and reduce noise.

Here list of websites to plan sessions.

<http://lightpollutionmap.info> Map to Find dark locations and see how dark the skies are, it uses the Bortle scale from darkest which is 1 and brightest skies 9.

<http://cleardarksky.com> tells cloud cover forecasts the transparency and other weather-related astronomy.

<https://www.star.nesdis.noaa.gov/GOES/index.php> Real-time satellite cloud cover or <https://zoom.earth/> if you live outside of the Americans

<http://timeanddate.com> for when the moon rises and sets and what time night starts.

<https://clearoutside.com/forecast> weather website for astronomers and astrophotographers