



PRACTICAL ASTRONOMY

First Steps In Processing Astrophotography

A presentation by Andrei Cotiga for the Canterbury Astronomical Society

THE BUNCH

- We now have all the images:
 - 10 Light frames that contain the actual information taken stationary with 30 sec exposure, ISO 1600, f4.5, 18mm lens (small frame sensor)
 - 4 Dark frames – equal duration and ISO
 - 7 Bias frames – shortest exposure time possible
- Inspect all photos



LIGHT FRAME



DARK AND BIAS FRAMES

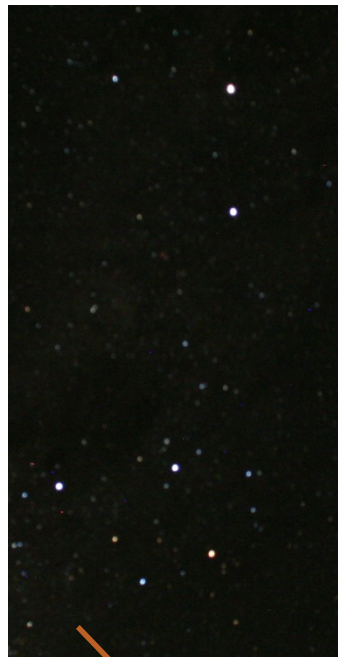
DARK

BIAS



INSPECT ALL LIGHT FRAMES

- Inspect all light frames and reject the ones that have been moved.



VS



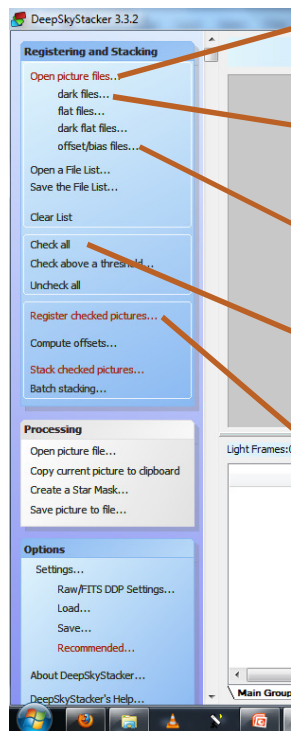
Delete

Keep



OPEN DSS

- Deep Sky Stacker @ <http://deepskystacker.free.fr>
 - Or Google it
- Now the fun part! It's VERY simple.



1

Select all your light flames

2

Select all your dark flames

3

Select all your bias flames

4

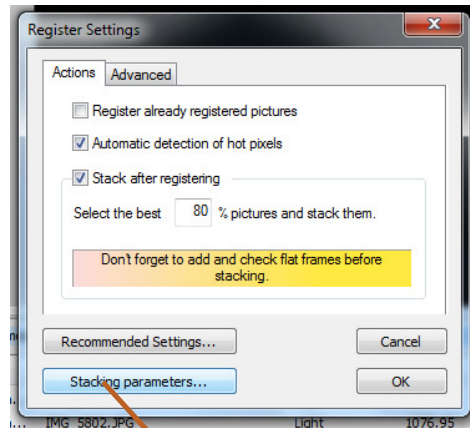
Check all files

5

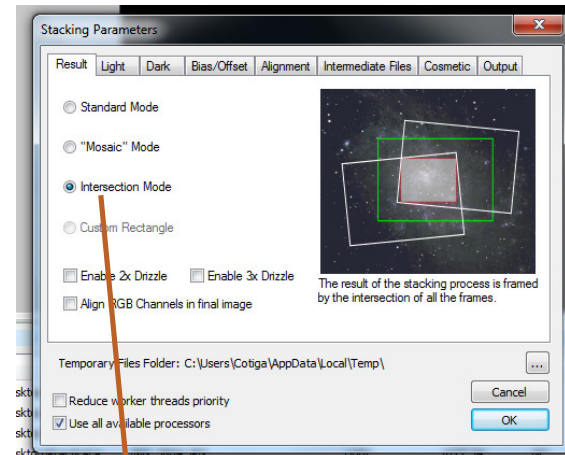
Let the magic begin



NEXT STEP

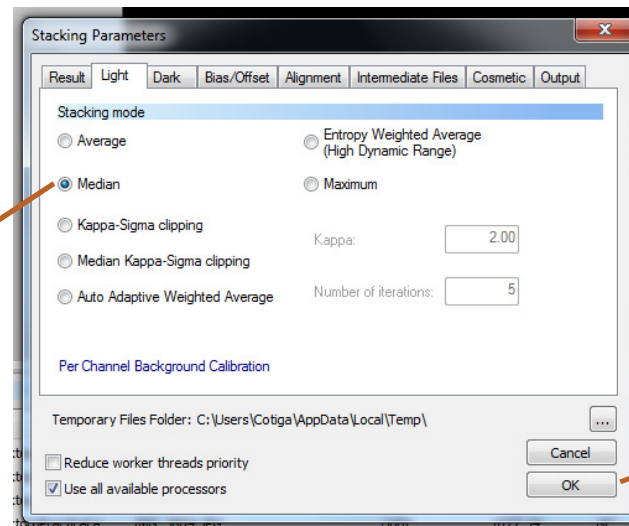


Click



Check this

And this



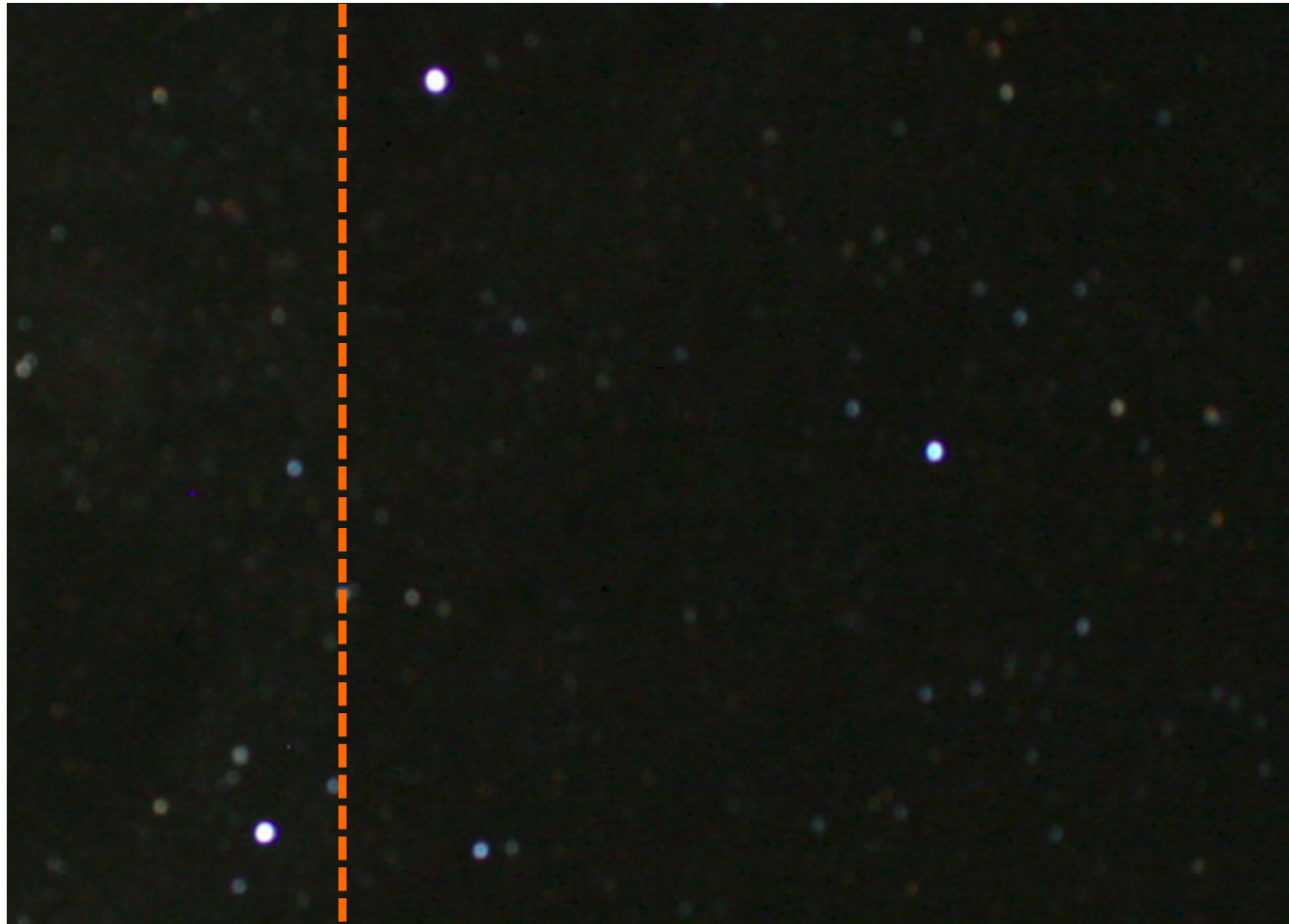
Then two
OKs...

WAIT...

- Now you have the final calibrated and stacked picture.
- All individual pictures had their darks and biases extracted to create the calibrated individual light frame.
- All light frames have been stacked one on top of the other.
- Let's see the difference...



CALIBRATED VS. RAW (AS FROM CAMERA)



Un-calibrated

Will be calibrated



SINGLE FRAME (30SEC) VS. STACKED FRAME (4.5MIN)



ZOOM OUT



SNEAK PEEK



GO BE INSPIRED!!!

YOU'VE BEEN ~~ASSIMILATED~~ CONVERTED

Thank you! ●