

## Processing Canon CR2 Image Sequences

### Is there a benefit with raw CR2 images?

The final image NGC5128 (**CR2 to TIF**). See image below

The straight (**JPG**) final image is at the end of this document

Conclusion: Benefit of RAW CR2 to TIF conversion not very apparent

Enhancement [StarTools v1.1.118](#). Minor adjustments and cropping [in PS CS3](#). Camera control [APT v1.54](#)



Over the years I have been taking all my image sequences in jpg format. I thought it was about time for a change. I have noticed that when Deepskystacker processes jpg images it does so using 8 bit/ch . On the other hand TIF images are processed as 16 bit/ch. As my Canon 1000d and 1100d do not output TIF format, I thought it would be appropriate to do a trial to take images as CR2 raw and convert them to TIF and evaluate any benefits.

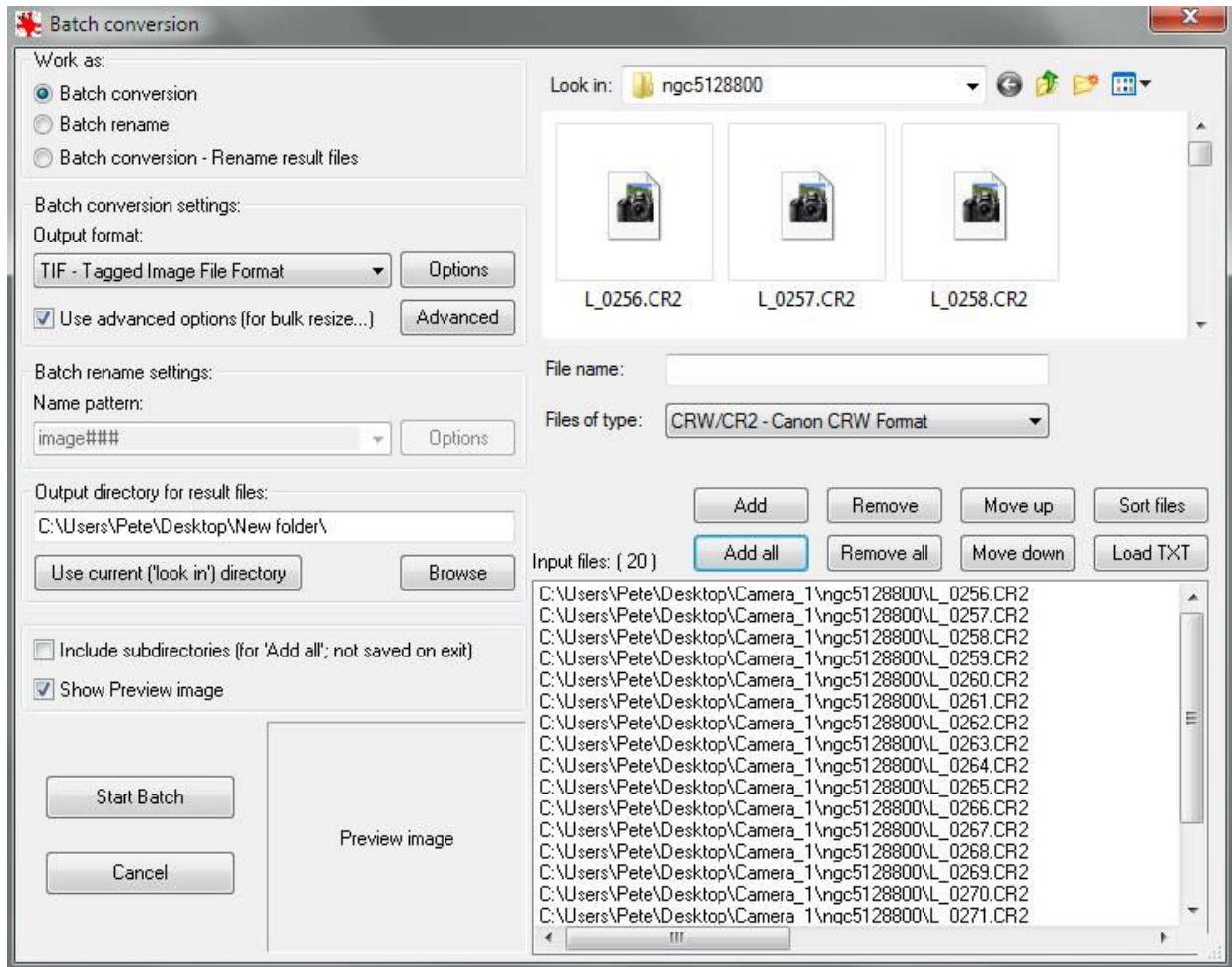
You may ask why convert to TIF when DSS will process the CR2 images direct. Not all stacking software accepts CR2 format.

The following illustrations show the steps I followed as well as a comparison of the two.

To start with we have the original images. Below is one typical image from the sequence. Bad light pollution with noticeable vignetting.



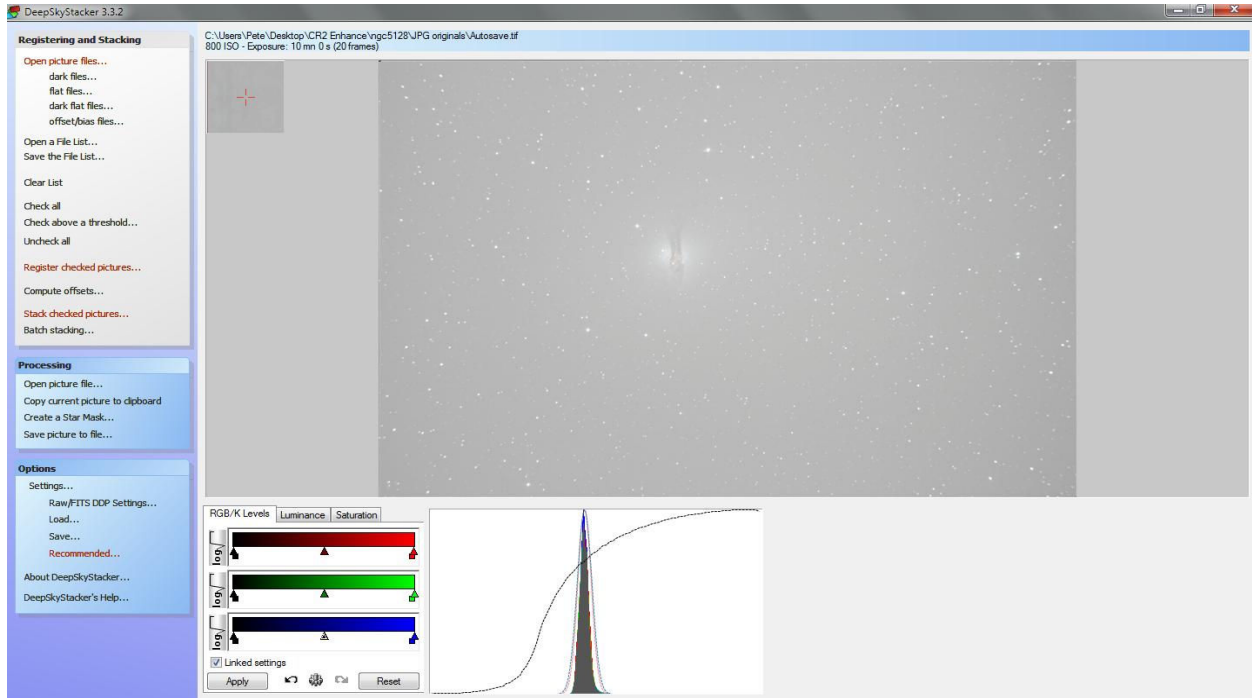
The next image shows the CR2 image conversion process using free software IrfanView v4.30 Open IrfanView and go to File – Batch Conversion / Rename and add your CR2 images.



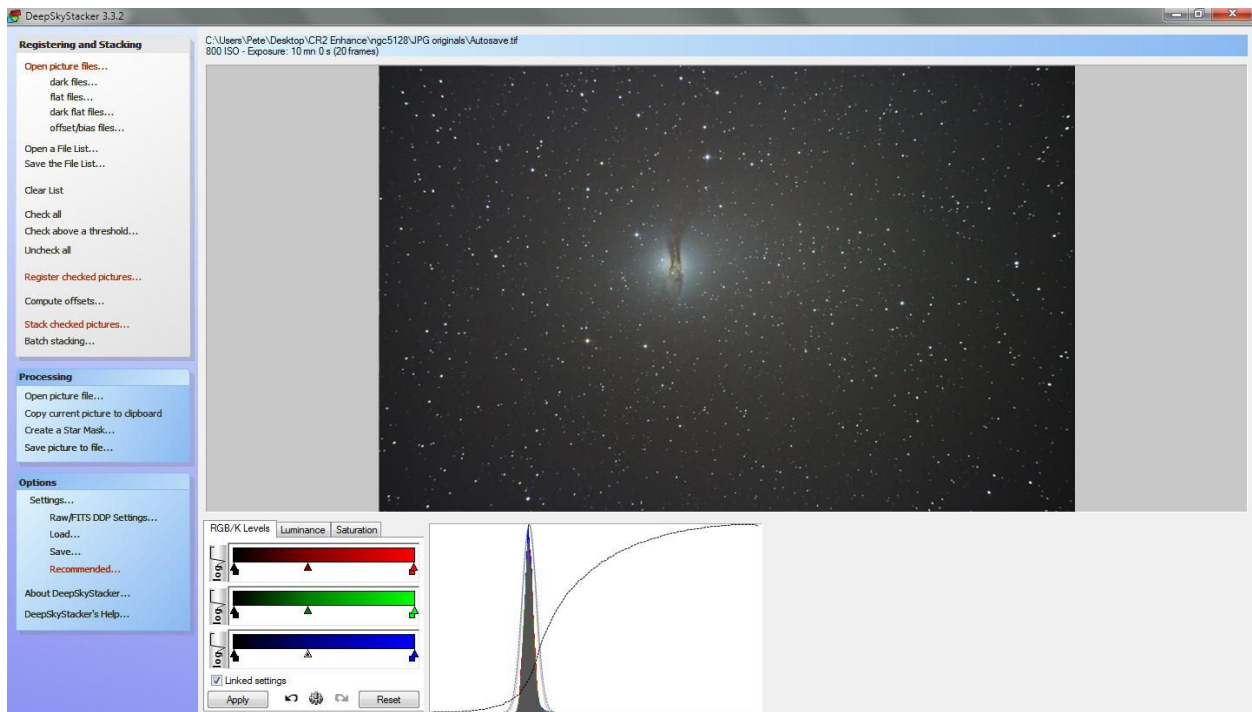
If images are rotated vertical, press the advanced icon and tick the appropriate “rotate left or rotate right” box.

## Use in Deepskystacker

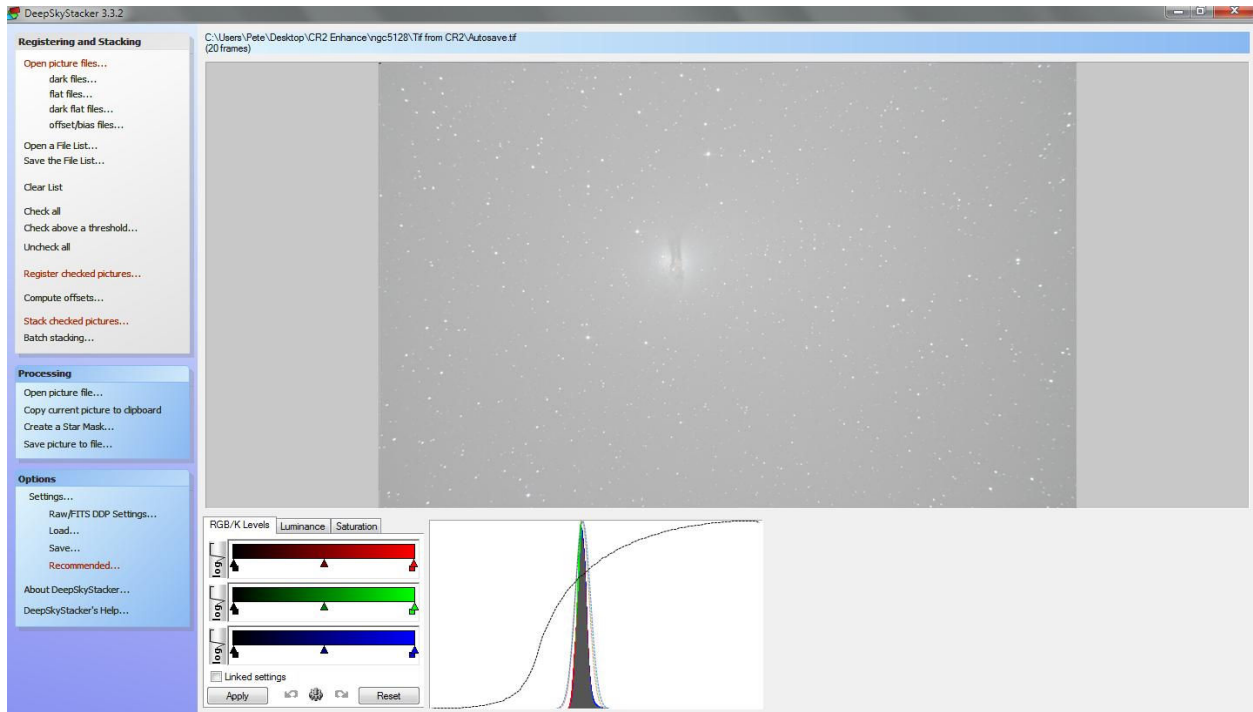
**This is the JPG image sequence.** I use a minimum of 25 frames, 5 dark frames and no flats. Stacking is done using the “auto adaptive weighted average” method and 5 iterations. When DSS has completed the stacking process we have the following.



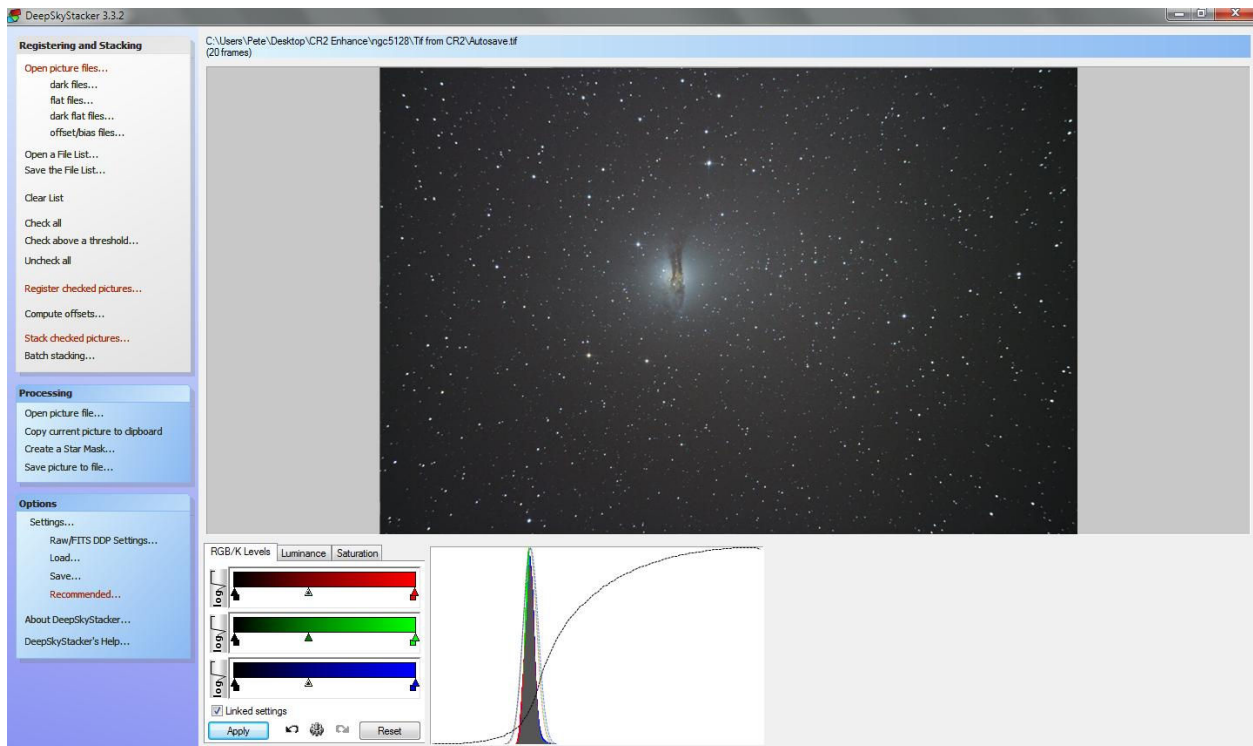
The bottom image is with RGB/K and 15% saturation adjustment



This is the TIF image sequence. Exactly the same parameters as above



The bottom image is with RGB/K and 15% saturation adjustment



The combined images show the difference. At this point I must emphasize that when the images were captured, I used the option to download RAW and JPG from the camera at the same time to ensure identical conditions. Camera control [APT v1.54](#)



**JPG Images**

**CR2 to TIF Images**

What beneficial difference is there. Let's look at a larger combined image

I will leave this to your own judgment. [Top image is JPG stack](#)



Taking it a step further and do some VERY basic enhancement. I used [StarTools 1.1.118](#). Edge Crop, Bin 25%, default wipe and 1% digital development. Both images treat exactly the same.

From this it would appear that the JPG image appearance is better. Less apparent noise. Again use your own judgment. [The top image is the JPG stack.](#)



**Note: This is 25 images. Stacking twice the amount of images will significantly improve noise levels.**

## The final image NGC5128 (JPG)

Using StarTools 1.1.118. Minor adjustments and cropping in PS CS3



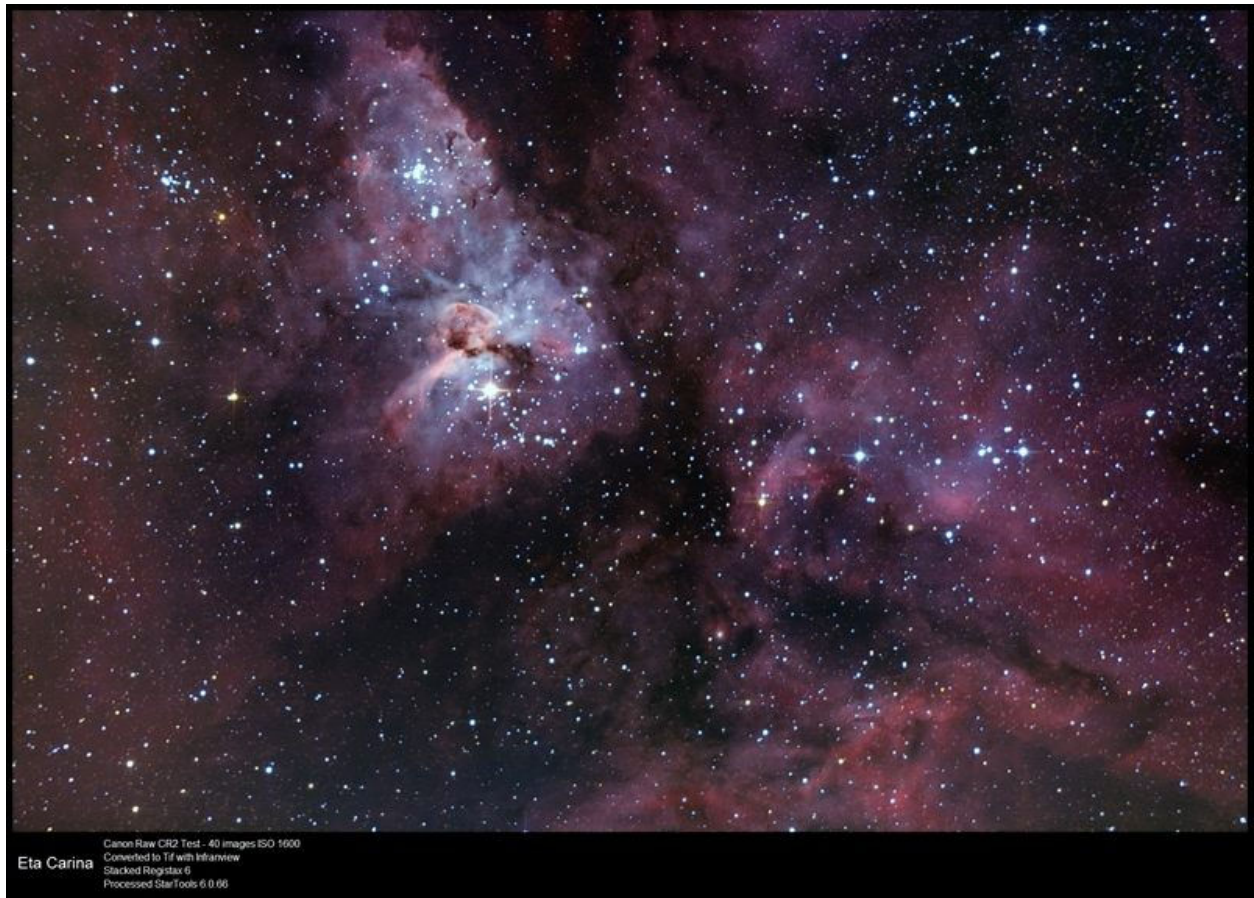
Many skeptics may totally disagree with the above scenario. These are my findings from hands on trial and error and several hours of work. This comparison in my opinion indicates that processing JPG images straight from the Canon 1000d/1100d is quite acceptable.

The results compare very favorably with what I have seen from more experienced astro- photographers on the web who swear by raw images.

The power of post processing software especially with dedicated software like StarTools can produce very dramatic and pleasing images.

Below is another image –Eta Car. 40 images CR2 converted to TIF. Stacked in [Registax 6](#).

The new [Registax 6](#) does not support CR2. Processed [StarTools](#)



Clear Skies

Pete