DuoBand Processing in APP

The question:

How can one Register and Integrate frames captured using a UVIR filter and a Duoband (Ha/OIII) filter

The recommendation:

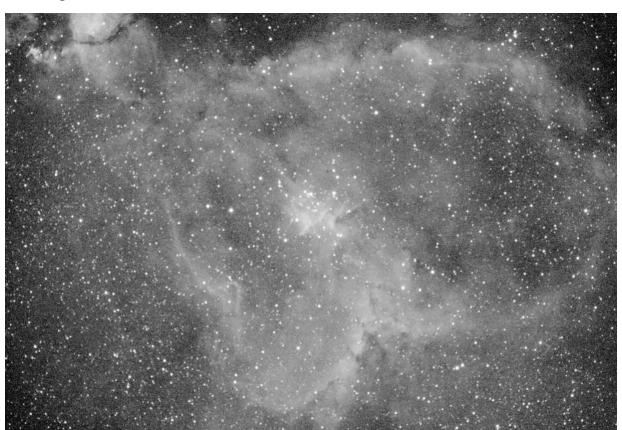
Separate the Ha and OIII frequencies first then process using Multi-Chanel/Filter Processing

TEST#1: Confirm the DuoBand filter frames have DuoBand data

Starting with 10 Light frames with the DuoBand (Ha/OIII) filter and the MasterDark and MasterBias

- 1. Set Tab 0 Algorithm to Ha-OIII extract Ha
- 2. Run Tabs 2-6
- 3. Set Tab 0 Algorithm to Ha-OIII extract OIII
- 4. Run Tabs 2-6 (accept re-Normalization)

Ha Integration



OIII Integration



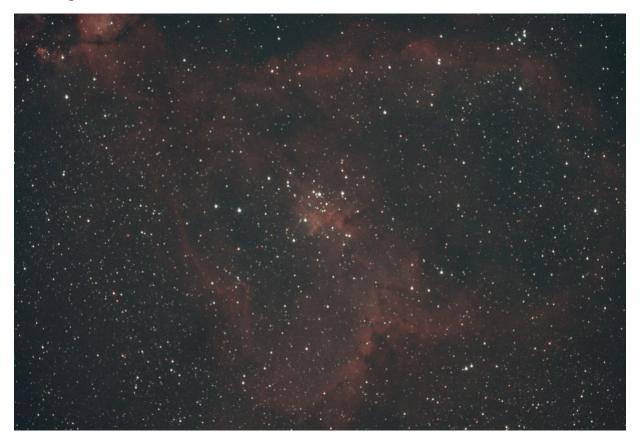
We can see the Ha integration is different from the OIII integration.

TEST #2: Confirm the same result can be achieved by creating new Light frames with the process below

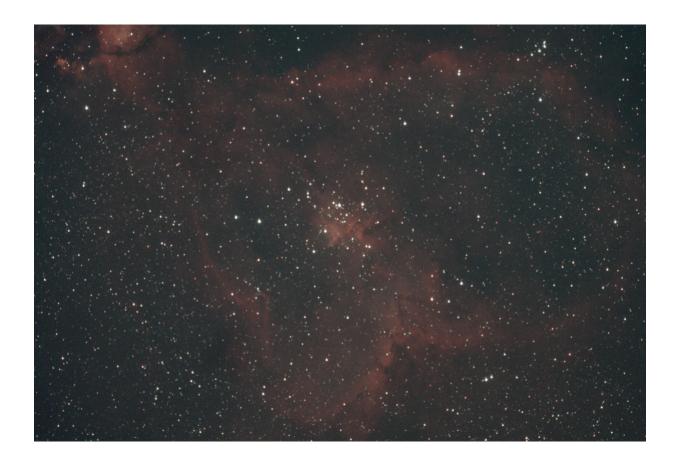
Starting with 10 Light frames with the DuoBand (Ha/OIII) filter and the MasterDark and MasterBias

- 1. Set Tab 0 Algorithm to Ha-OIII extract Ha
- 2. Run Tab 2
- 3. Rename calibration files (filter-Ha)
- 4. Set Tab 0 Algorithm to Ha-OIII extract OIII
- 5. Run Tab 2
- 6. Rename calibration files (filter-OIII)
- 7. Clear data
- 8. Tab 0 Algorithm to Adaptive Airy Disc
- 9. Tab 1 Activate Multi-Channel/Filter Processing
- 10. Load Ha calibration files as Ha
- 11. Load OIII calibration files as OIII
- 12. Tab 6 set Multi-Channel/Filter option to integrate per channel
- 13. Run Tabs 2-6

Ha Integration



OIII Integration



As you can see, both integrations are identical plus they are in color - not grayscale. These two methods are not equivalent