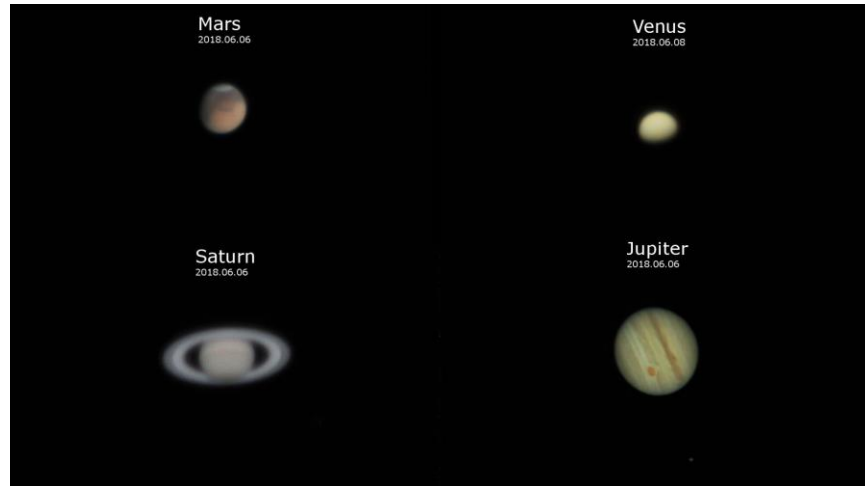


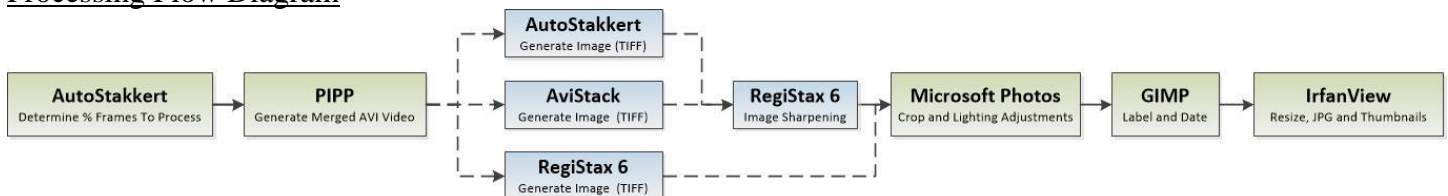
Planet Processing Workflow



Introduction

This paper reviews the basic steps used for creating a good image of a planet using the process of [Lucky Imaging](#). A good introductory article on this technique is located [here](#). The goal is to capture a high magnification video of a planet, use software to eliminate poor quality photos, and use the best photos to be stacked and processed to create a good image. Hardware requirements include a steady telescope mount capable of tracking the planet (clock drive) primary photography through the telescope, usually using a Barlow lens, and a device capable of capturing video. Preferred video format is AVI, but the same process can be utilized with other formats including individual images in a standard format such as JPG.

Processing Flow Diagram



The Process

Following the process diagram below is a more general review for each step

1. **AutoStakkert** – Using this application we test retention of 50%, 25%, 12% and 6% of frames from the captured view. We determine the best looking image generated from these settings and will use this percent in the PIPP program.
2. **PIPP** – Taking the videos captured including Darks, Flats and Target Image we will generate a final AVI file with the determined percentage of frames to retain from the first step. This AVI file will be used by one of the three imaging software applications to generate the single planet image.
3. **AutoStakkert/AviStack/RegiStax** – Using one of these three imaging application we will generate a final image (TIFF). All three imaging applications were created for Lucky Imaging processing and have their pros/cons. Only one program is required to generate a final image. Use your preference. My current preference is:
 - a. **Moon** – AviStack
 - b. **Planets** – AutoStakkert, RegiStax 6
4. **RegiStax 6** – Image Sharpening. While both AviStack and AutoStakkert offer sharpening, RegiStax 6 is the best tool for sharpening images. Import the image and perform sharpening on it in this application.
5. **Microsoft Photos** – Use this program for cropping and basic lighting adjustments. (TIFF)
6. **GIMP** – Used to add text and imaging setup information on the picture (TIFF).
7. **IrfanView** – Resize the image, Convert TIFF to JPG for general distribution, and create thumbnails from image.

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Resources

All software listed in this article is free

- Lucky Imaging Processing Software
 - [Planetary Imaging PreProcessor](#) (PIPP)
 - [AutoStakkert](#) – Well respected for planetary imaging and ease of use.
 - [AviStack](#) – Great for processing moon images.
 - [RegiStax 6](#) – The strong point of this software is it's sharpening controls.
- General Purpose Graphics Programs
 - [GNU Image Manipulation Program](#) (GIMP)
 - [IrfanView](#)
 - [Microsoft Photos](#)
- Tutorials
 - Jerry Lodrigus – [A Guide to DSLR Planetary Imaging](#). A purchased HTML book it is probably the most compressive single source of information you can get in one place. I highly recommend purchasing and reading this.
 - [PIPP Manual](#)
 - [Planetary Processing with AutoStakkert](#) (PDF)
 - RegiStax
 - [Using Registax 6](#)
 - [A simple Processing run \(Moon\)](#)
 - [Use Linked Wavelet Layers \(Moon\)](#)
 - [Use Linked Wavelet Layers \(Saturn\)](#)
 - [Using the new Batch Macro Module](#)
 - [Batch Processing using advanced tools](#)