# RegiStax 3
# Quick Guide to Basic AVI File Processing

Mike Swanson is solely responsible for this document mangling Mr. Berrevoets' intended use of RegiStax :-)

RegiStax 3 is available free for download at http://registax.astronomy.net/

- After starting RegiStax, click the **Select** button to open your AVI file.
- Insure **Colour** is selected in the **Use** section - no need for **LRGB**.
- **Processing Area** should be 512 pixels at a minimum. Higher values may produce better results but can dramatically slow processing on computers with limited memory.
- Click the **Framelist** tab and then move the frame list to the left or right so that you can see your image. Use this list to find a frame with the best detail. Use 496 in Jupiter sample file.
- Select an **Alignment box** size that completely encompasses the planet's disk or an area of the Moon or Sun with significant detail. As you change this, you will see the size of the box when you move the mouse over the image.
- Use the mouse to center the alignment box over the planet (or lunar/solar detail) and click. Click the **Align** button. When Alignment is done, click the **Limit** button and Registax will proceed to the **Optimize** stage.
- Click the **Optimize** button. After completion of Optimize, click the **Stack** tab to proceed to the **Stack** stage.
- Click the **Stackgraph** tab. The **Quality Cutoff** and **Difference Cutoff** sliders limit the frames that will be stacked to just the best available. Set the Quality Cutoff to something between the 2nd and 3rd graph lines (from the left). Set the Difference Cutoff so that it only includes the top 1/3 to 1/2 of the jagged blue line. Notice as you are making these changes, Registax reports the number of frames that will be stacked (n=999) at the bottom of the window. Click the **Stack** button. If you don't like the resulting image, slide the lines and click **Stack** again until you are satisfied with the results. Try higher quality and lower difference or vice versa. Proceed to the **Wavelet** stage when ready.
- On the **Wavelet** page, experiment with adjustments to the slider buttons on layers 1 through 6 and also with the Contrast, Brightness and Gamma sliders (tabs on the right). This will allow you to pull out more detail and sharpen the image - but notice that excessive wavelet processing produces a grainy image. Click the **Process** button to process the entire image with your current settings.
- Click the **Final** tab at the top of the window for additional tools to fine-tune your image. Here you can rotate and adjust color saturation as well as make a final adjustment to the image brightness. You can also flip the image vertically or horizontally to account for the image orientation produced by your telescope. You can also resize the image - I often save at the original size and then see how the image looks at 150 or 200 percent and save again if the results are good. When finished, click the **Save Image** button.
- The image file you save can then be processed a bit more in a program like PhotoShop or ImagesPlus.

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