

SUCCESS STORY

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Basler scout Cameras Capture High Resolution Planetary Images

Customer

- Name of the customer: Torsten Edelmann
- Location: Wide Fields Observatory - Landsberg/Germany
- Industry: Astronomy
- Year of Realization: 2009/2010



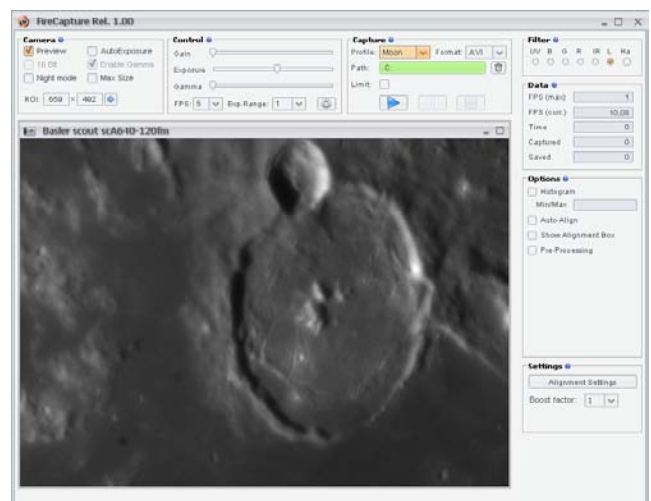
Basler scout

Application

The aim of astrophotography is to capture high resolution planetary and lunar images. Astrophotographers often work with the so-called "lucky imaging" strategy (see http://en.wikipedia.org/wiki/Lucky_imaging). Lucky imaging is one of several possible astrophotography techniques that use subsecond image capture rates to reduce the blurring effect caused by atmospheric turbulences. It combines multiple short exposure images into a single image, yielding a much higher resolution than would be possible with a single image using a longer exposure time.

Solution and Benefits

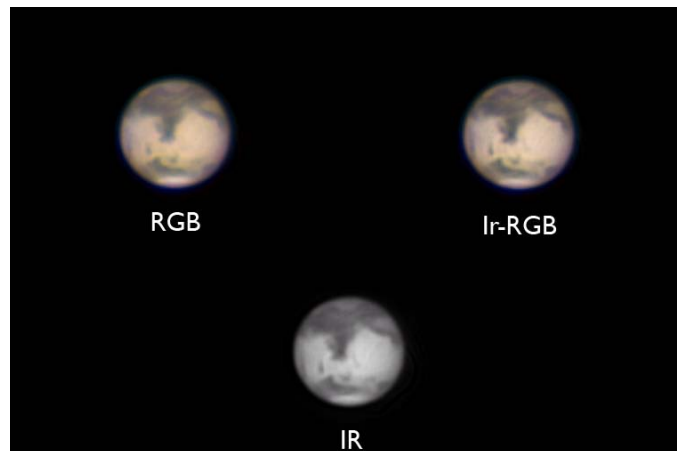
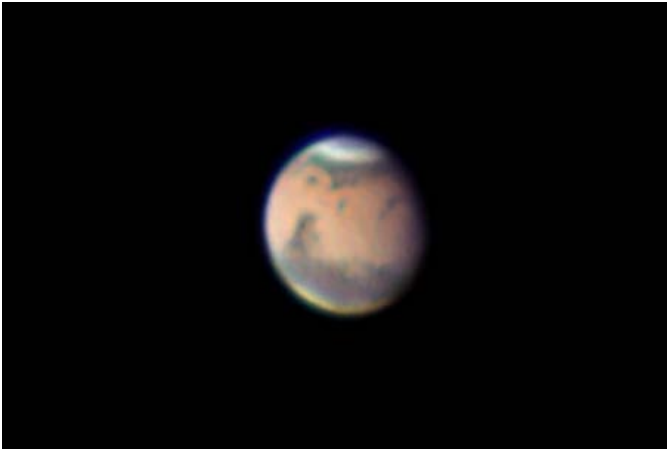
A 100% pure JAVA application named "FireCapture" has been developed for capturing planetary and lunar images. The application uses the Basler pylon SDK to connect to a Basler scout scA640-120 camera via the Java Native Interface (JNI). The camera is used together with a 250 mm Cassegrain telescope to capture images. The scout camera combines high frame rates with high sensitivity, an essential combination for capturing astroimages, and it also exhibits unprecedented IR sensitivity for this kind of photography. In addition, the camera works perfectly with the



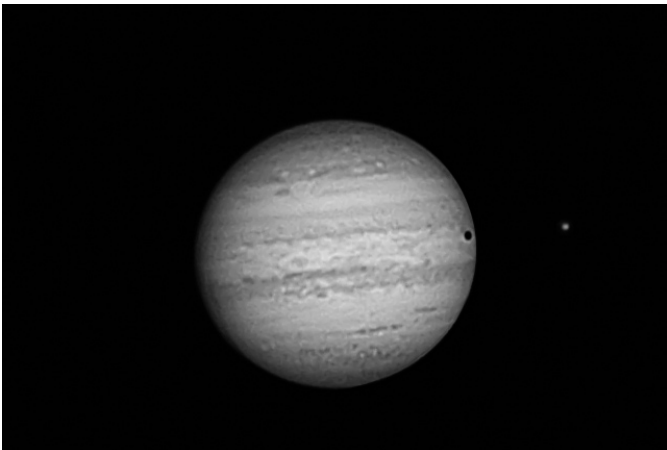
Screenshot of the application

Captured images:

Mars:



Jupiter:



Clavius:



Technologies Used

- Basler scout camera scA640-120 fm
- Java and Java Native Interface (JNI)
- Basler pylon API and SDK

More Information

Wide Fields Observatory:
http://www.wonderplanets.de/index_e.html

FireCapture:
<http://firecapture.wonderplanets.de/>

Lucky Imaging strategy:
http://en.wikipedia.org/wiki/Lucky_imaging

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