



ASI CAMERAS FAQ

REVISION 1.0

APR, 2014

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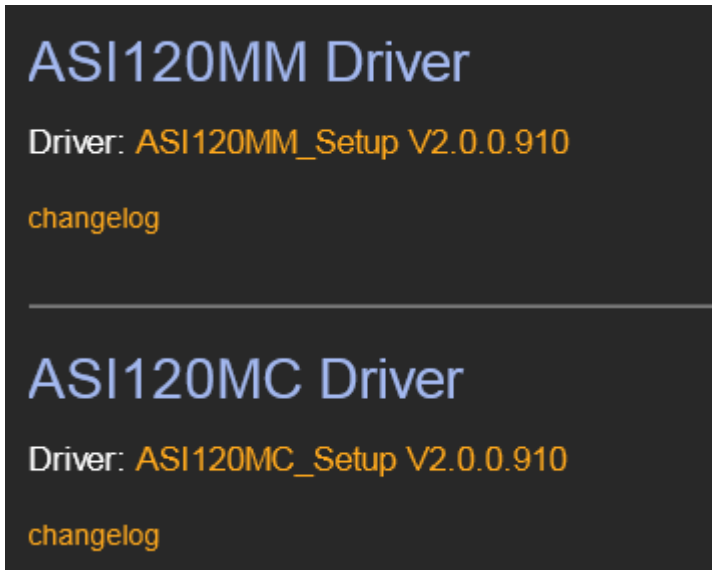
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1. Is the driver necessary and where can I download the camera driver?

Yes, you can download the driver of cameras from our official website

link: <http://www.zwoptical.com/Eng/Software/index.asp>

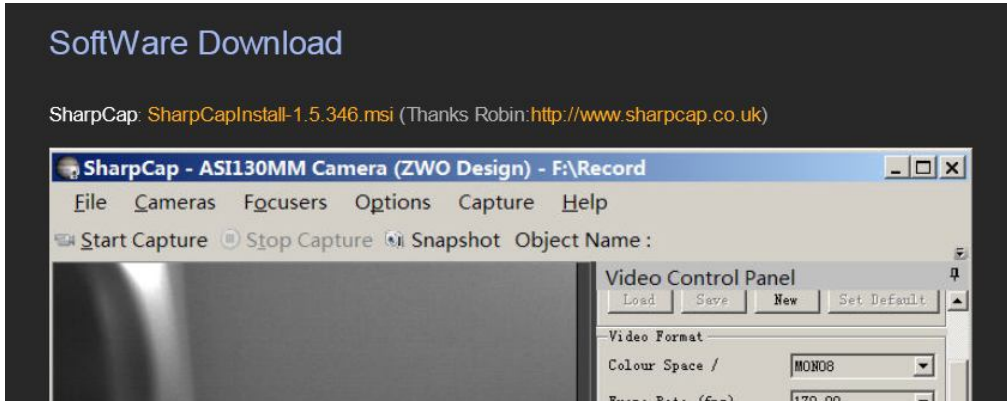


2. How to connect the camera to a telescope, what software can be used to capture?

Here is a good picture made by Scott. Nicely show how to do it.



ASI camera is based on Directshow technology of Windows, which is a kind of Windows standard video devices and a variety of capture software support ASI camera. SharpCap and Firecapture is recommended to be used with our camera, you can get them from our CD or downloaded from our website: <http://www.zwoptical.com/Eng/Software/index.asp>

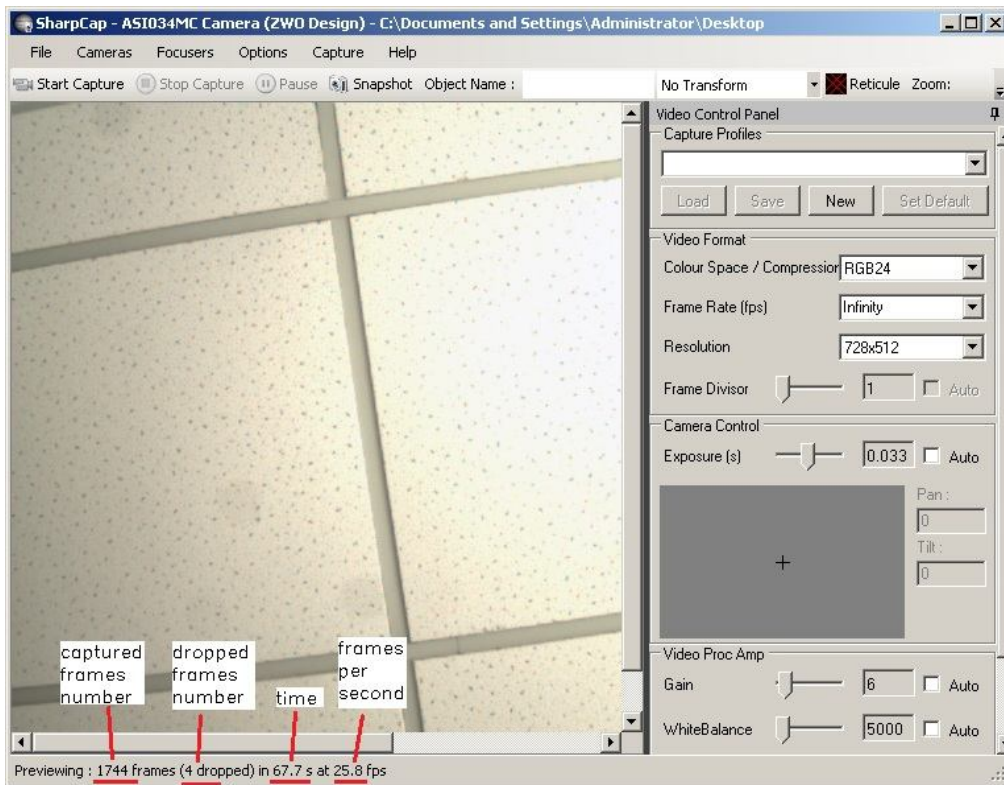


3. Where is your official website address?

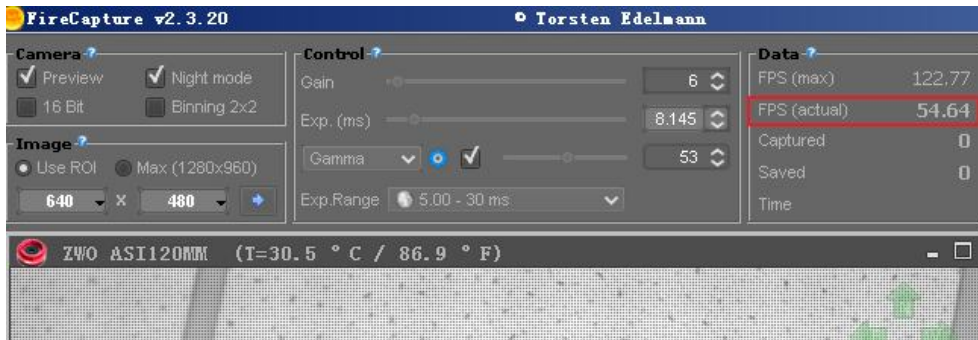
Suzhou ZWO Co., Ltd: www.zwoptical.com

4. Where to check the FPS?

At the status bar of SharpCap

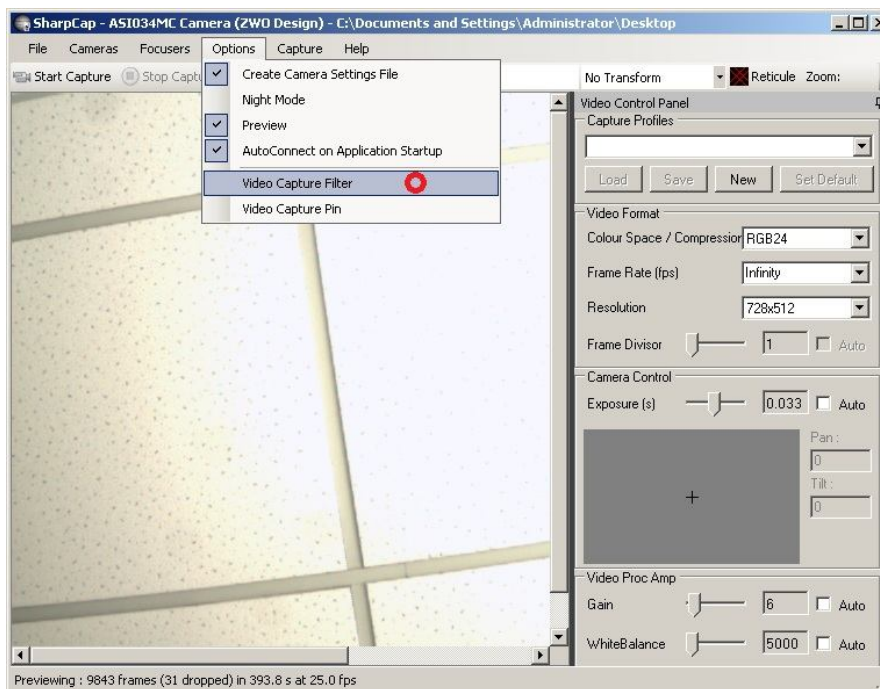


For FireCapture:

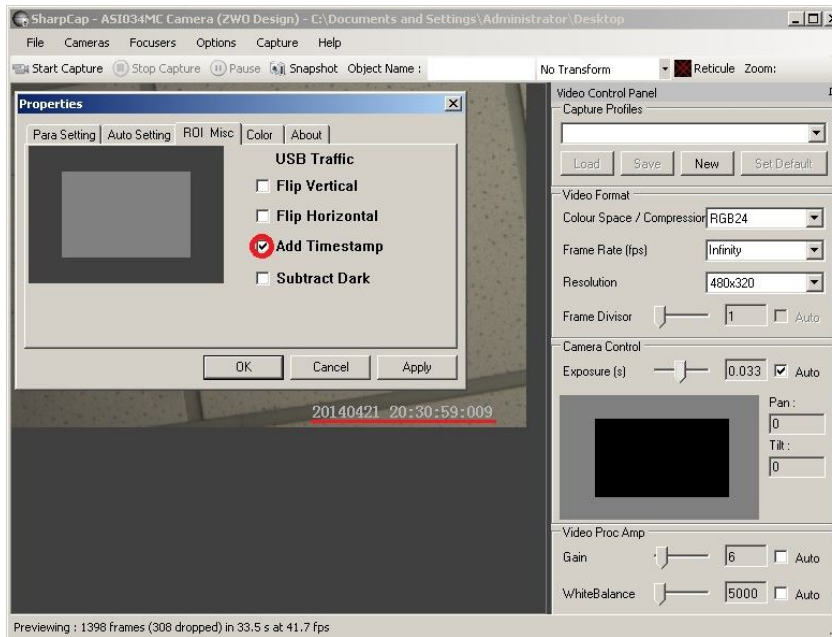


5. I use ASI120MM camera to do meteor monitoring, how to show the time information in the video

Set as follows: 1. Choose "Video Capture Filter" in "Option " menu

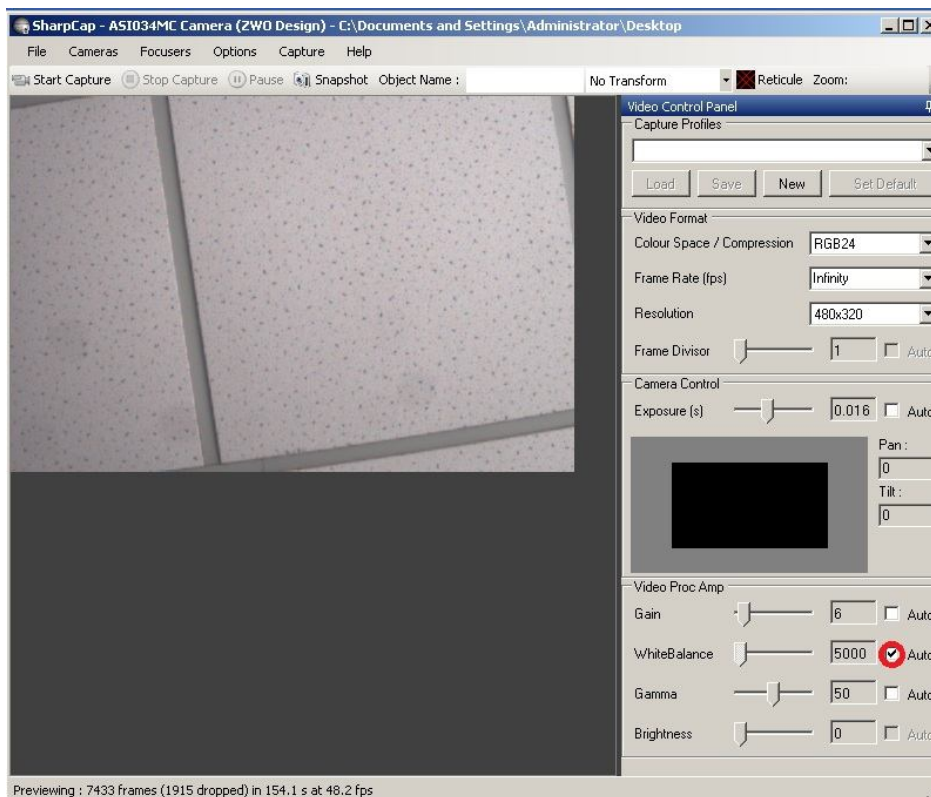


Access to ROI tap, choose "Add Timestamp ", timestamp will be added to lower right corner of the image.



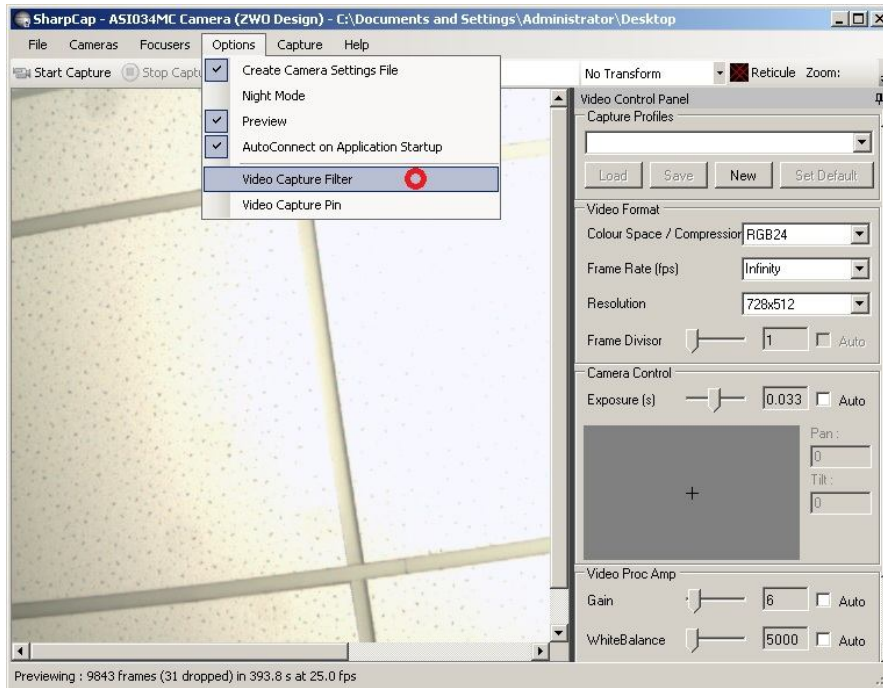
6. My camera is ASI120MC, how to adjust the white balance? Is it ok to set the "auto" always.

You can set the "auto" balance on SharpCap's control panel, but manual adjusting is not supported here

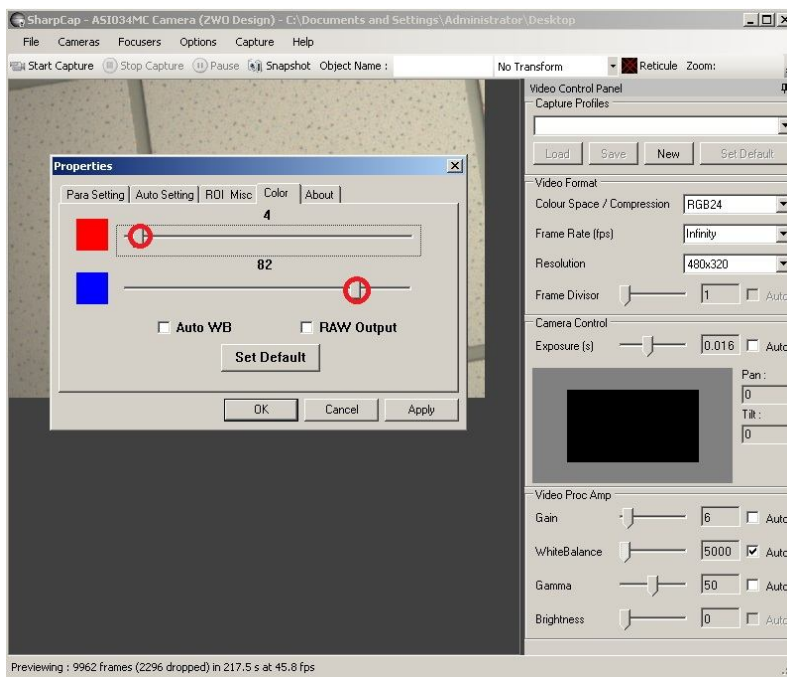


You can always adjust manually as following below steps:

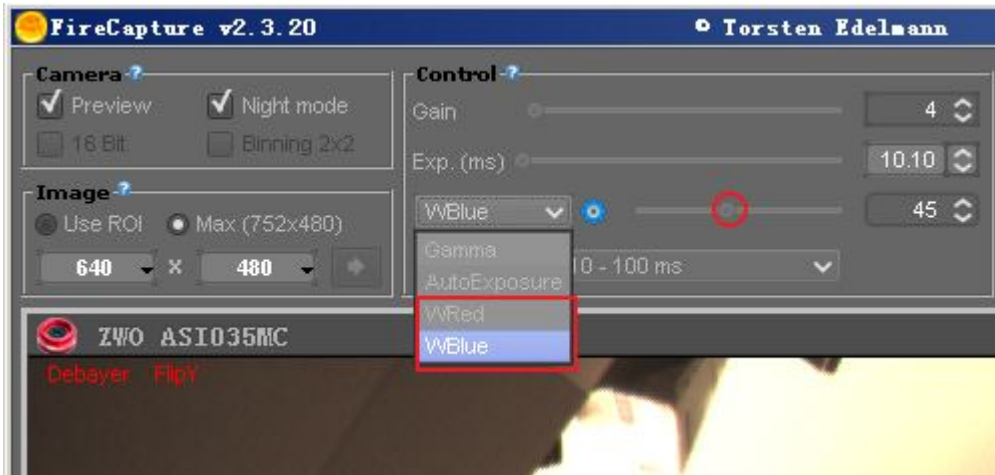
Click "Video Capture Filter"



Find the "color" tap



For FireCapture, select "WRed" or "WBlue" in combox, then adjust the slider:



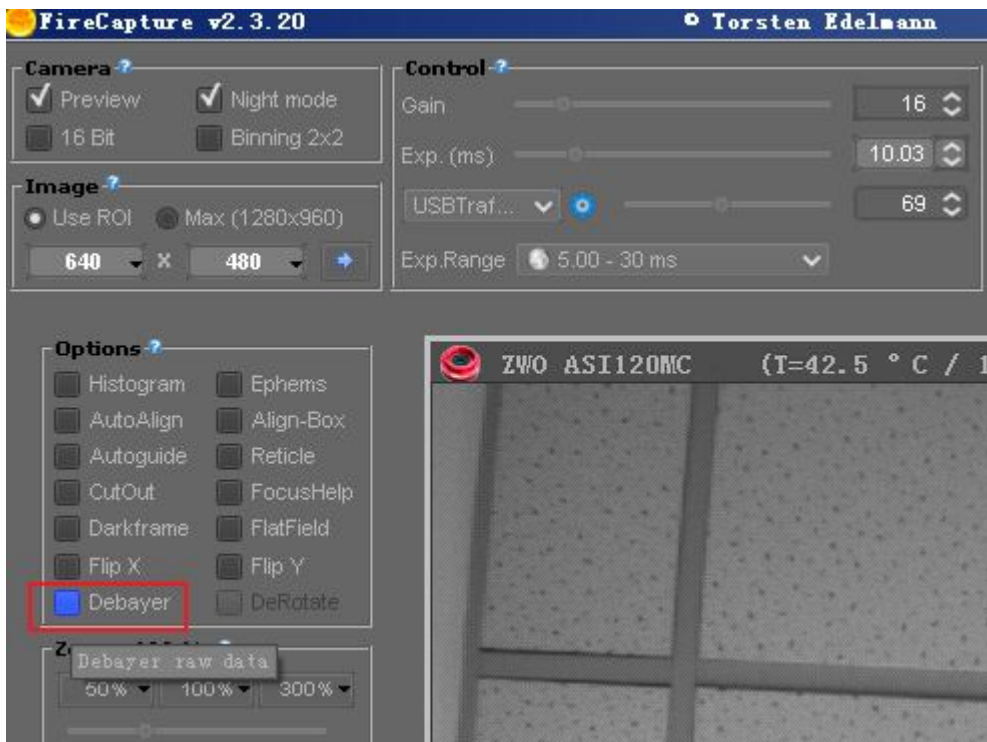
7. The video captured by ASI120MC is really large, How can I reduce the size?

The color data size is 3 times of mono camera's, so about 3Gbyte data will be took to save 1000 frames($1.2M * 3 * 1000$). ASI120MC supports RAW output which is only 1/3 size of color data format. So RAW format is suggested to choose for color camera.

8. How to get RAW data from ASI120MC?

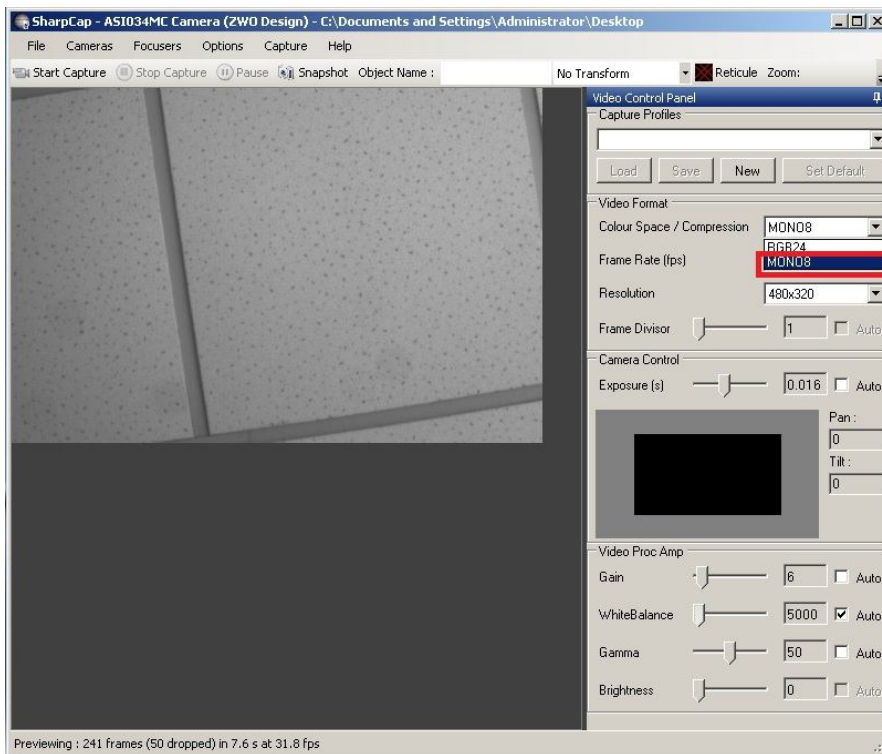
ASI120MC supports RAW data output, in this way, the size of saved file will decrease, and it can be debayered to color image in stack software.

For FireCapture, RAW output is the default option. You can click "debayer" to preview or capture in Color..

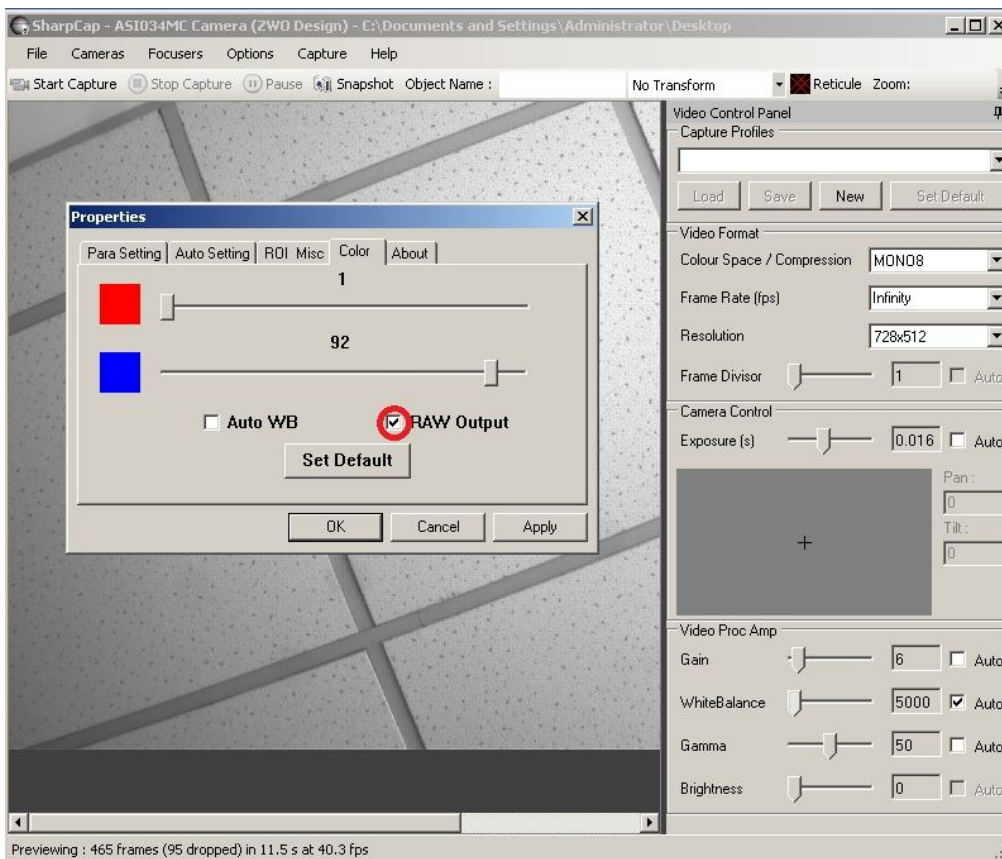


Here are the steps output though directshow interface:

Firstly, Choose "MONO8" in color space combobox.



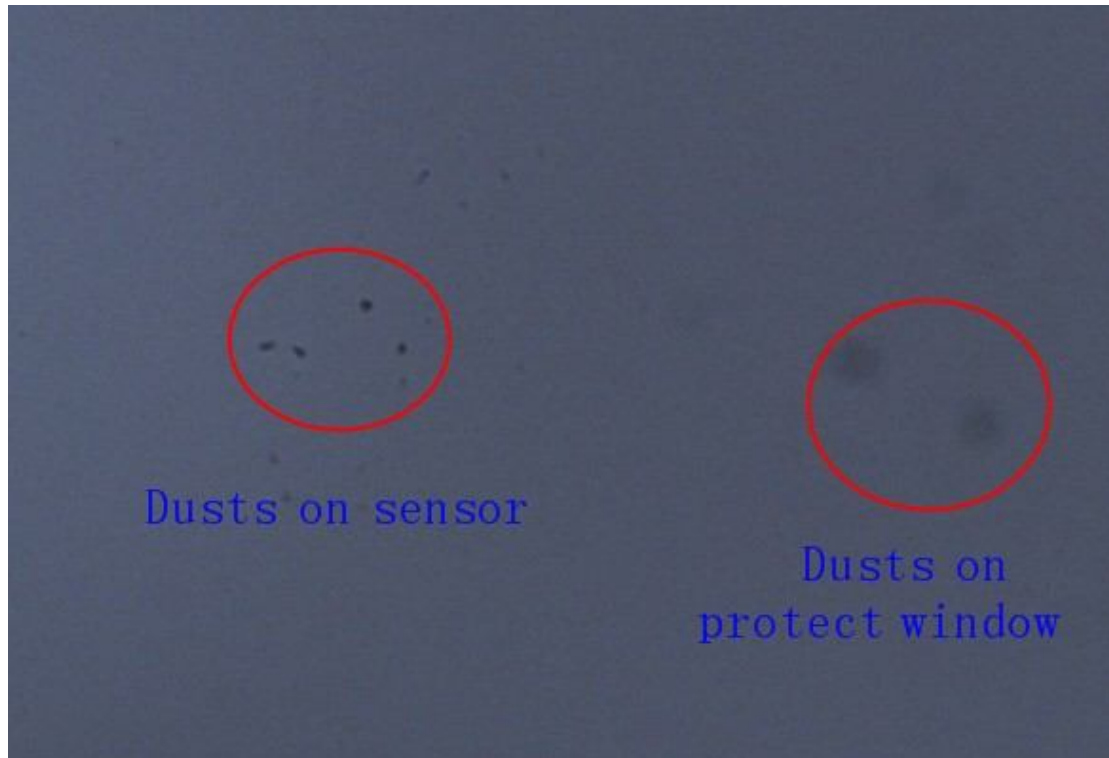
Click "Video Capture Filter" in "Option" menu and access to "color" tap, check "RAW Output" box



9. I capture Jupiter with telescope connected to ASI120MC, and Jupiter is so small, can you recommend a Barlow lens to improve that.

Normally the maximum focal ratio is F30-F40 for an excellent mirror and seeing. But ASI120's pixel is smaller, so the best focal ratio is F20-F25. So for a F5 focal ratio scope, you can choose a 4X-5X balow lens.

10. I capture moon with ASI120MM, there are many black dots on image.



The small dots are dusts on sensor, and the bigger one is dusts on protect window.

You can try to blow them away with a air blow, some dust may cannot blow away, then you can try with cotton swab and alcohol or lens pen, you can read the ASI user manual for detail info.

11. There many bright pixels in my camera's image. More will be there with longer exposure time and higher gain. Is it normal?

Under low gain and low exposure time, the bright pixels are hot pixels, hot pixels is guaranteed to be less than 3 by sensor factory.

Hot pixels will grow with exposure time and temperature, they can be fixed by dark subtract in software, but the most effective way is cool it.

12. I can't capture the whole moon with my scope connected to ASI camera, how can I do to get a full moon.

The magnification is high when connecting camera to a telescope, to fill with the whole moon or

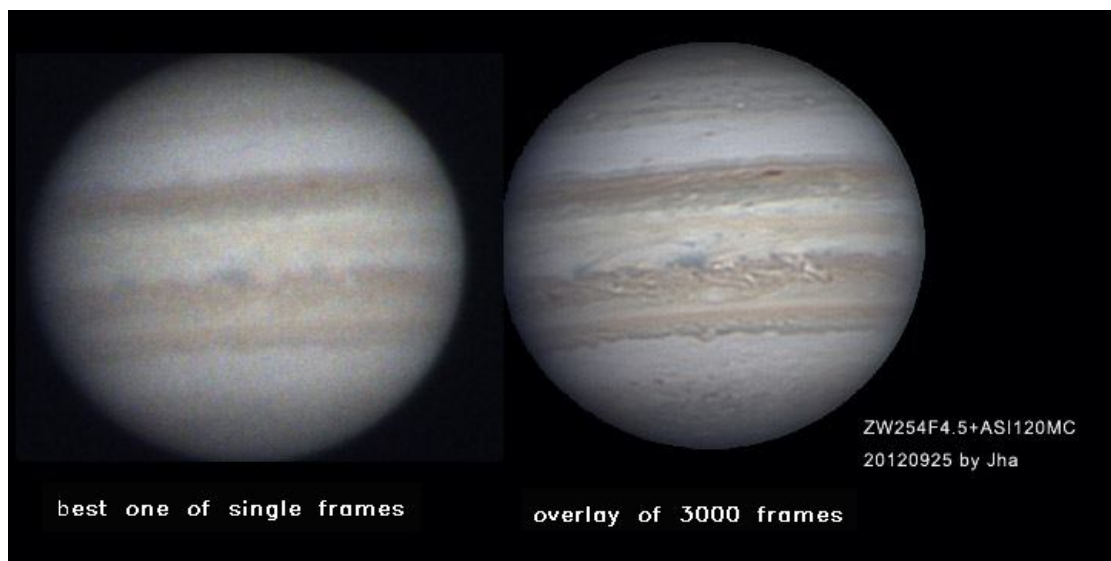
sun, cameras with 1/3 inch sensor, the telescope's focal length cannot beyond 360mm, and cameras with 1/2 inch sensor, the focal length cannot beyond 560mm.

So you can try to capture different parts of the moon and combined them together. This is called moon mosaic.

13. Seems my eye can see more detail than the camera.

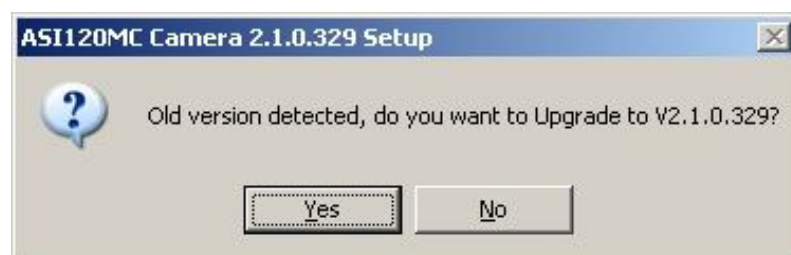
Human eyes is the most precise optical device, our brain is the processor. We can get a good image after processing by brain.

Camera works as eyes without a brain, it can only record. So it needs the help of stacking and processing software, a lot of detail can be bring out after processing.



14. How to update the driver when new version is released

It is convenient to update ASI camera's driver, the only thing you need to do is to download the driver, the setup program will detect old version and update automatically



15. I want to use camera outdoors, but my usb wire is too short, can I use an extended wire or hub?



To use the full potential of camera, it is not suggested that use any kind of extended wire or hub. If you need to then can have a try, some good hub with external power supply still can provide 480Mbps bandwidth