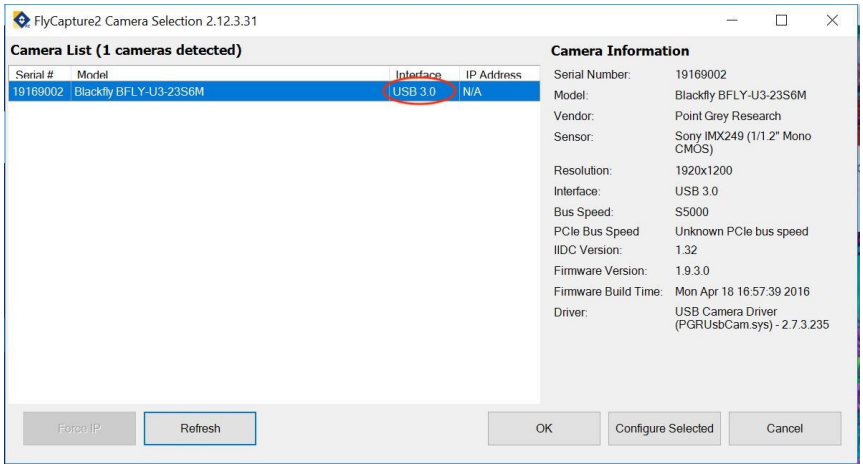
Adjusting the Field of View of your BlackFly Camera

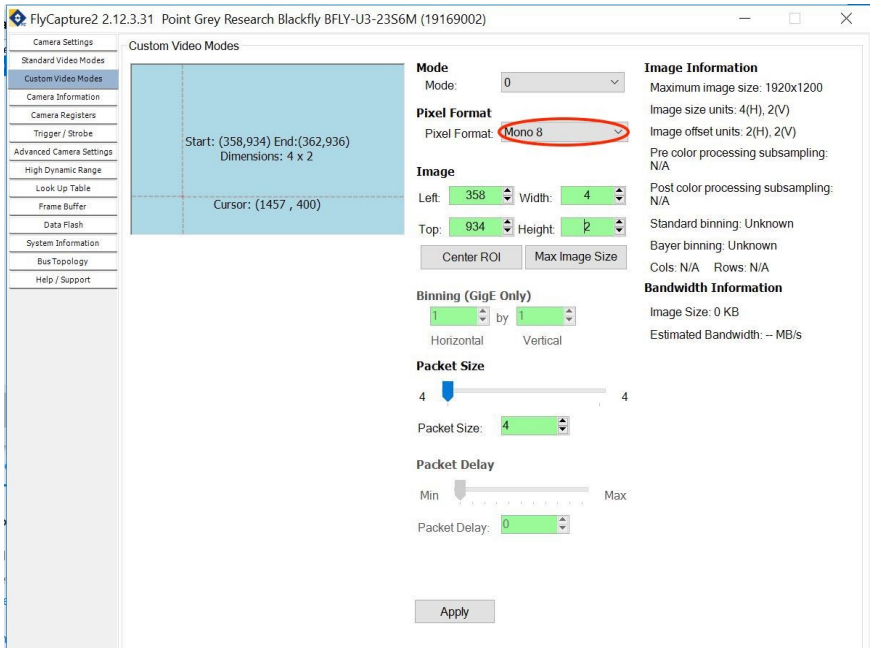
By cropping the field of view in the FlyCapture software, you can increase the sampling rate of the camera to 100 Hz.

Plug camera USB cable into a USB-3 port in the computer (it will have a SS symbol next to it). Open FlyCapture software and select camera from devices. Make sure FlyCapture recognizes the camera as USB 3.0!

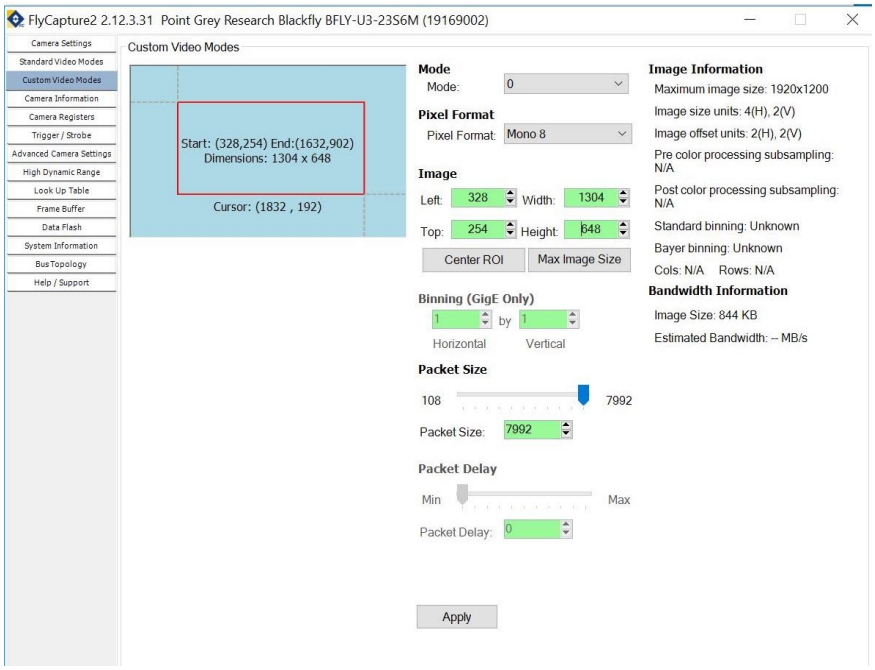


Click OK, then navigate to camera settings at the top of the toolbar (icon circled in red below).

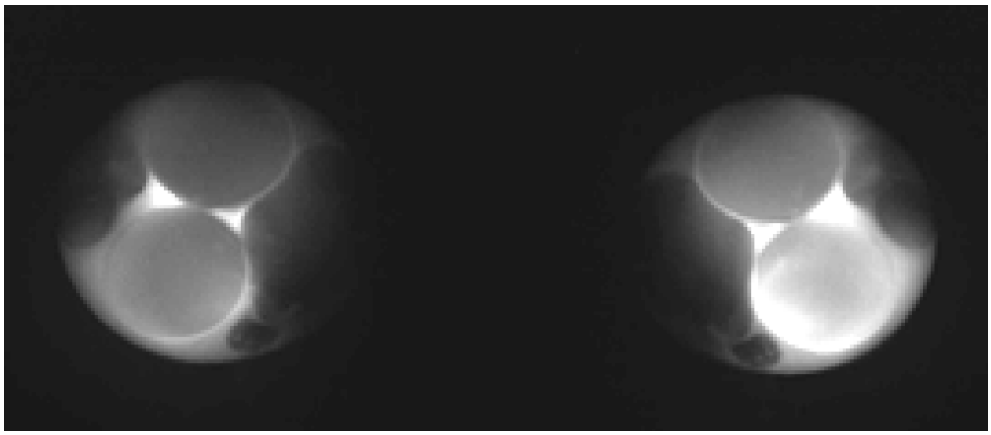
Under the ‘Custom Video Modes’ tab, change the pixel format to Mono 8, as pictured.



Click and drag your cursor within the blue box in the upper left-hand corner to create a smaller red rectangle. This will be your cropped field of view.

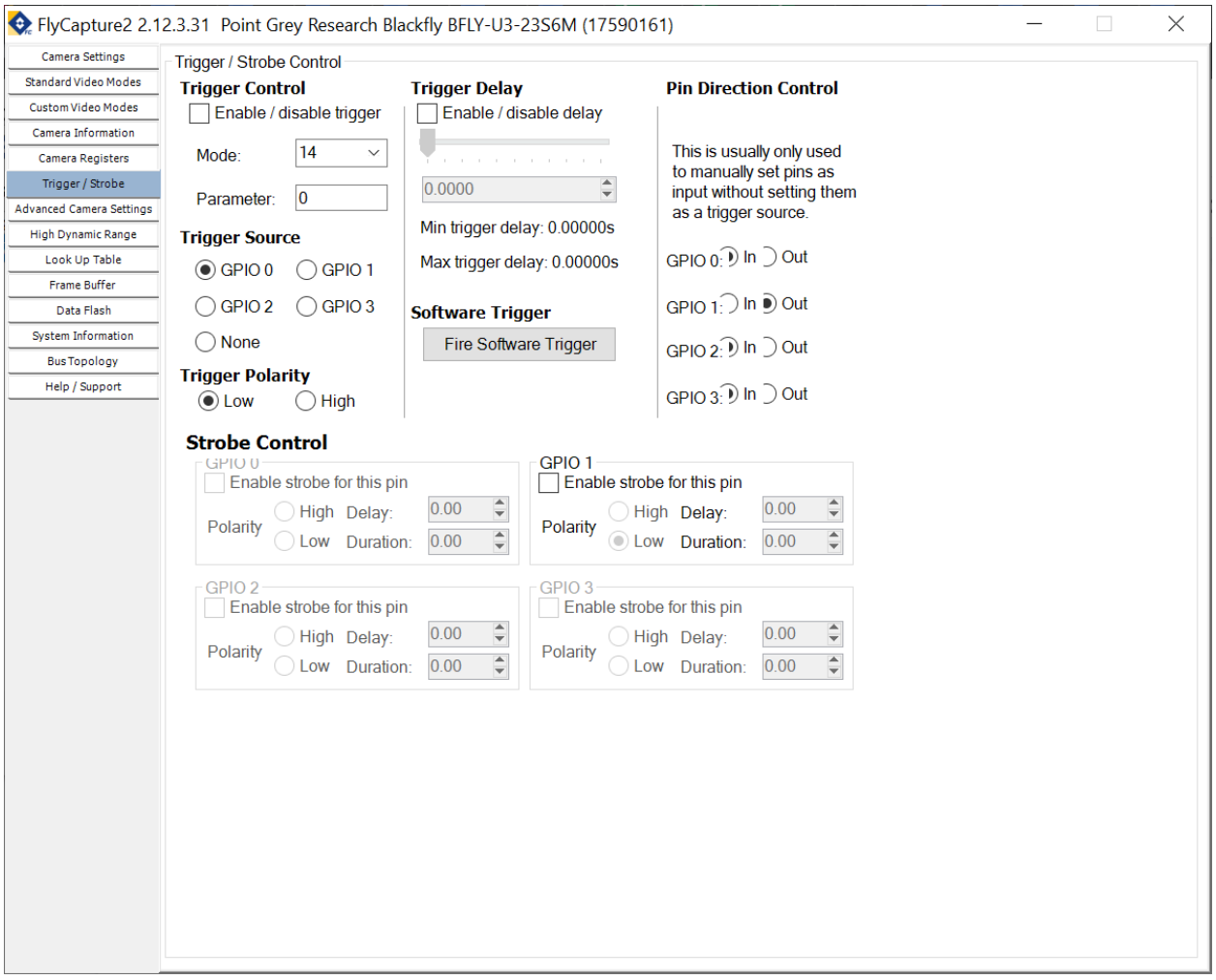


Toggle the Left, Top, Width, and Height fields to center your cropped field of view. **Use the FlyCapture viewfinder to make sure the entire image from your FP3001 system is still visible, then click ‘Apply’ to save the settings.**



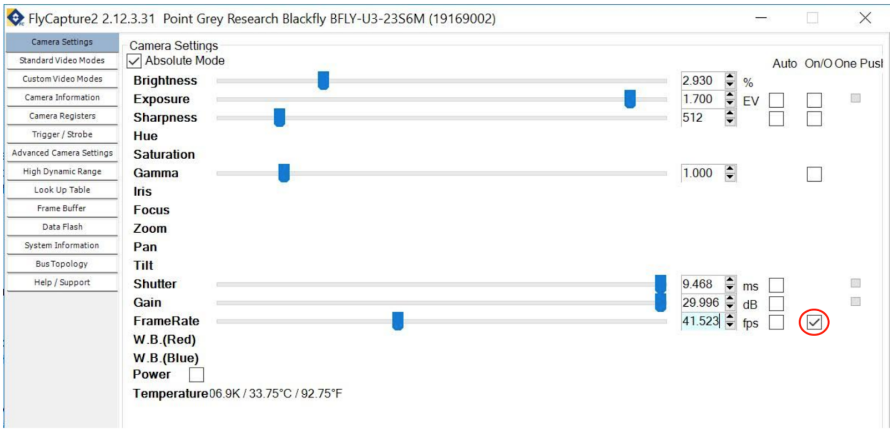
An example of a cropped image in the FlyCapture viewfinder.

Under Trigger/Strobe -> Trigger Control, uncheck the box adjacent to “Enable/disable trigger”.

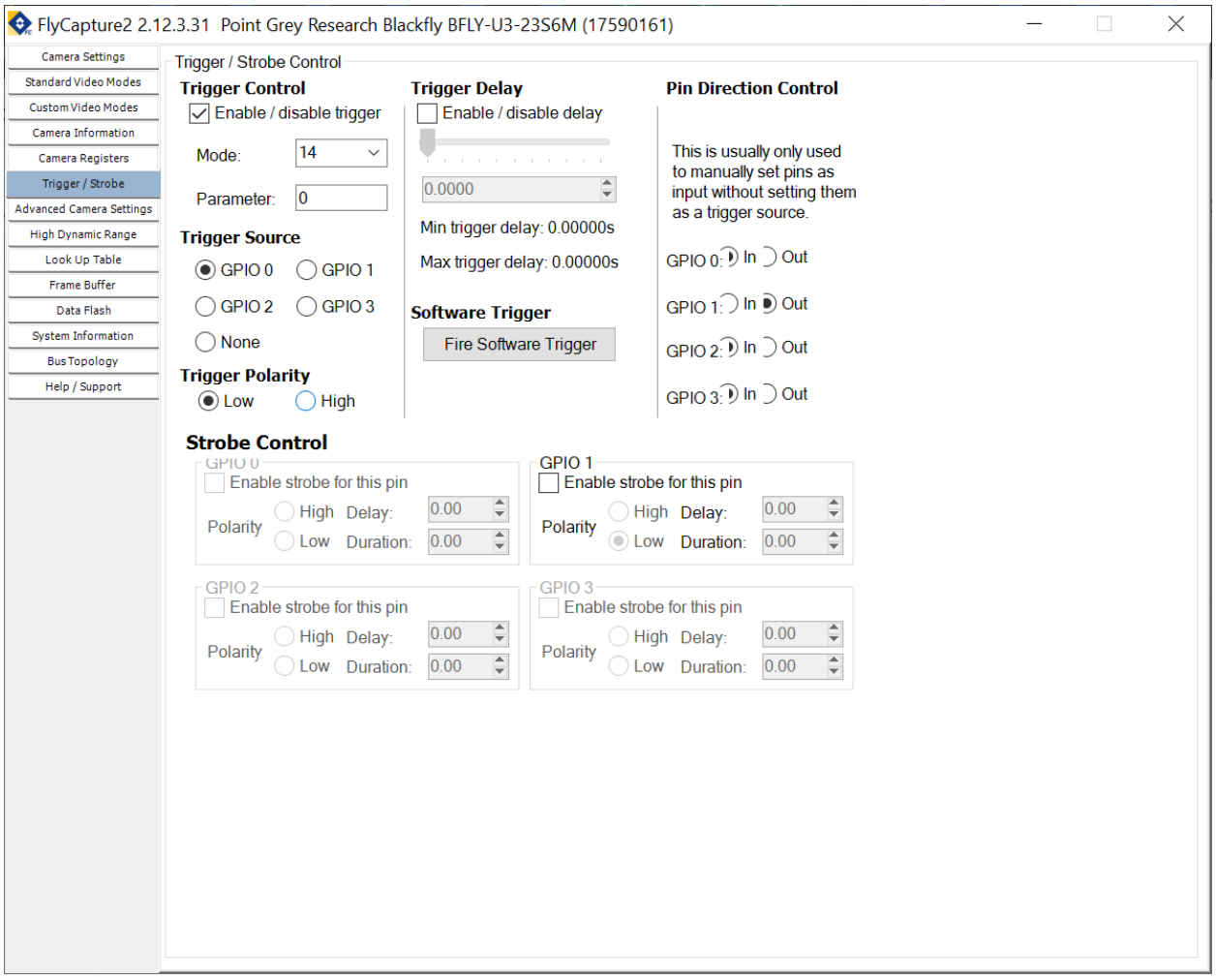


Next under the ‘Camera Settings’ tab, uncheck the On/Off box next to the Frame Rate sliding scale.Set your Shutter to (1/frame per second) - 1ms. Make sure to convert (1/frame per second) to milliseconds! You do not need to configure FrameRate. The FrameRate will automatically match the frame rate of the driver box.

Once you have configured your Shutter, check the On/Off box.



Return to the Trigger/Strobe section and check the box under “Enable/disable trigger”



Now your camera is configured for up to 100 Hz recordings!