

1/04/22

## Testing and Fixing the FPS Rate of the Ximea High Speed Camera:

To fixing the FPS of the camera to a high value (i.e. 1000 FPS) we have taken the following measures:

- (i) Set the downsampling rate to 2 and monob. ~~to 1/2~~
- (ii) Exposure time is set to 0.687 ms.
- (iii) Gain is 4 dB.
- (iv) Auto white balance is set.
- (v) In the performance tab we have selected ~~frame rate~~ control FPS: frame rate.
- (vi) ROI is 320 x 128.

In the top left of ~~the~~ figure 1, the high FPS ( $>1000$ ) can be seen.

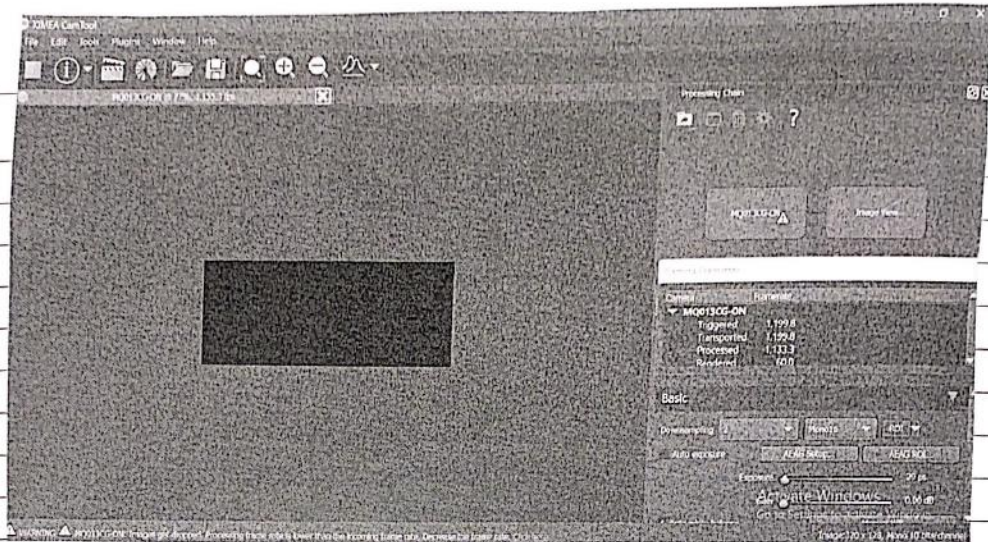
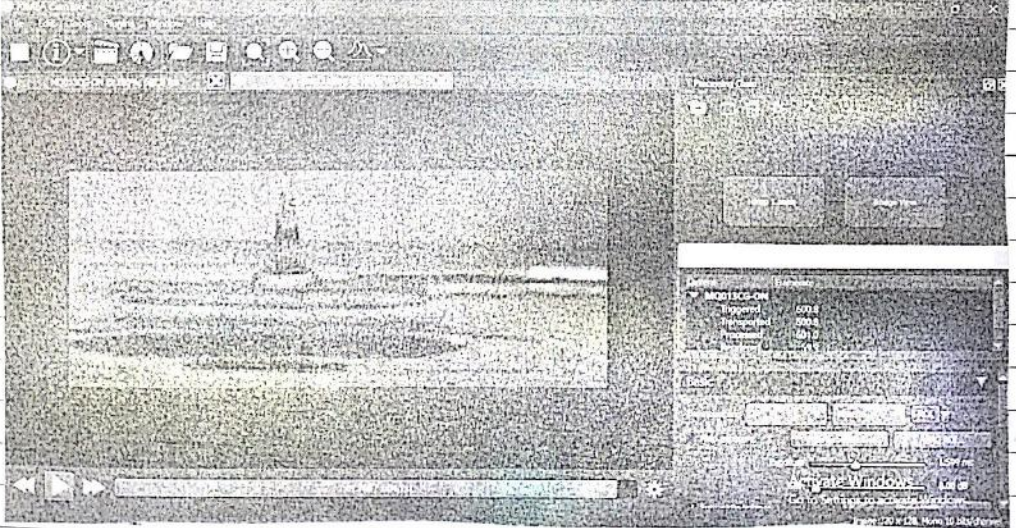
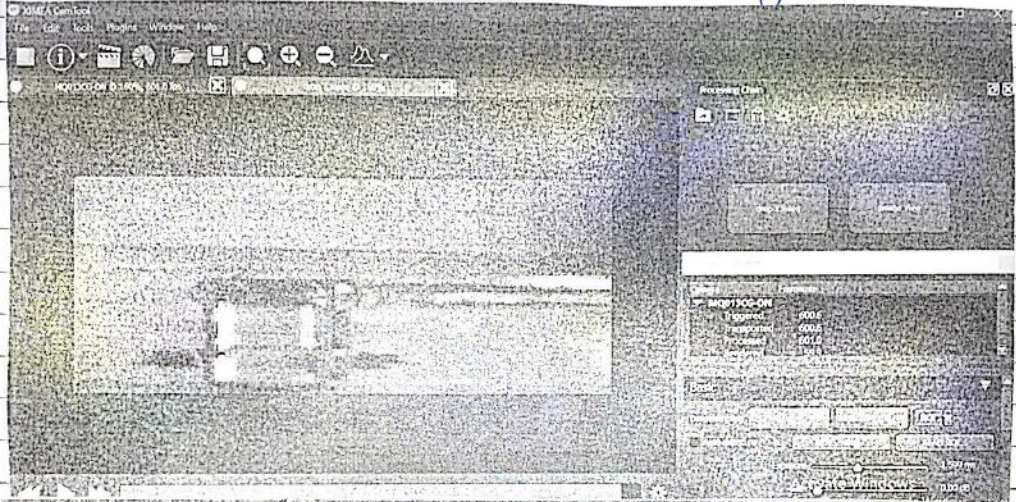


Figure 1: FPS  $> 1000$  is achieved

## Recording and Analyzing Water Dropping Experiment at ~~1000~~<sup>high</sup> FPS :

In order to further confirm the working of the camera, we conducted a simple demonstration of dropping a water droplet in static water. The camera was able to precisely record the phenomenon and the different

events of the phenomenon are sequentially shown in figure 2.



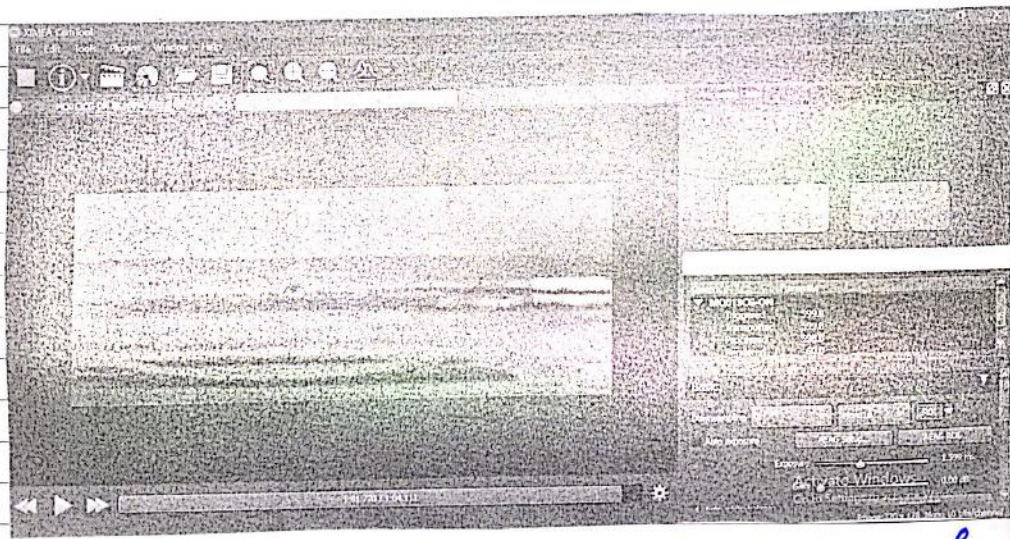


Figure 2: Sequential pictorial demonstration of water dropping phenomenon.