

Fast Acquisition (Ciliary Beating) User Guide for COREView and 12M180 Camera (brief)

Live Imaging System Zeiss Axio Observer Z1 Microscope

IO Industries equipment:

| | |
|--------------------------|-----------------------|
| Camera | Flare 12M180MCX |
| Video recorder DVR (SSD) | DVR Express Core 2 |
| Acquisition software | COREView DVR software |

1. Turn on and setup the instrument as described in the **Live Imaging System User guide**. Do not start Zen software, use the Zeiss touch screen.

2. Set the light path to “Sideport R” (right) in Zeiss touchscreen.

3. Data is stored on the black IO DVR Express Core 2 parallel hard drive. This is not accessed by Windows software (drive is invisible to Windows).

4. Double click **CoreView software**. There is also Core Software user guide/manual (icon on desktop) but it’s harder to use than the software.

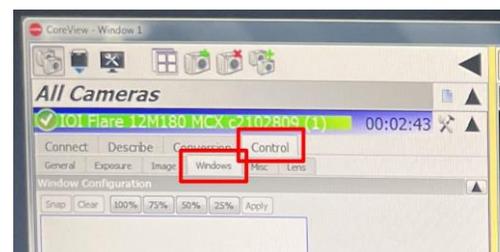
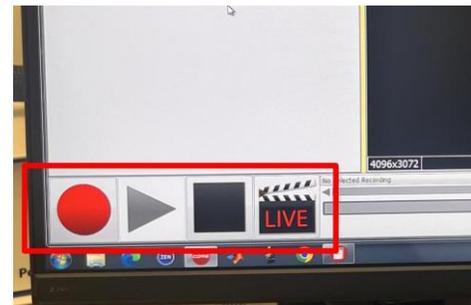
5. Files on this Core 2 hard disk can be viewed in “**storage manager**” (disk icon, right), you can delete files there and check available memory.

6. Preview your image using the “**Live**” button (bottom left), next to stop, play, and record buttons.

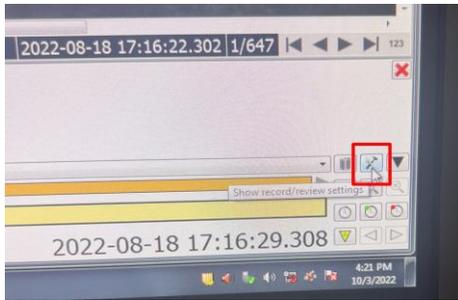
7. Set the image window size to be captured. In the main software window (camera icon): **Control tab > Windows tab**. If you set to full size the image will include the circular, rough black edge of the microscope projected image (the CCD chip appears to be bigger than the microscope image). You can drag the box to customize the rectangle size or select 50%. Controls are a bit weird. I have not found a binning setting.

8. Set the frame rate and exposure using the **Exposure tab**. These are inter-related but not absolutely the same (you can have exposure times that are less than the frame rate). You can also adjust analogue and digital gain (misc tab?) if you need a brighter image. You can get sense of the frame rate in the Live View and watching the tick of the image counts.

9. Fast frame rates will result in large data files, but is also the primary reason to use this system. Smaller images (window size above) will allow faster frame rates. **Choose wisely**.



10. Set your **file name** in lower right hammer/tool icon: “show record / review settings”.



11. Capture your movie using the round, red, **record button**. You may have to check if there is **enough memory on the Core 2 hard disk**, see above, storage manager.

12. Export your recordings.

- a. Export recording icon
- b. Chose file type (usually .avi)
- c. Press export button at bottom.
- d. Save onto the data drive (not C: drive).



Files are subject to deletion on the Core 2 disk.
Remove excess files and avoid filling up the disk.

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