eye4you

ADVANCED IMAGING TECHNOLOGY

eyeMOTION

## A universal software platform for digital imaging bench

Introduction

eyeMOTION is a perfect universal software platform for digital imaging benches. From single to multi acquisition of video streams, to advanced post or real-time processing on those image streams, alongside with the control of additional external devices, and so many other features, eyeMOTION will turn your computer into an ubiquitous platform for any kind of digital imaging bench.

Multi camera compatibility: The main feature of eyeMOTION is its ability to control digital imaging cameras and frame grabbers from many different manufacturers. Currently several major camera brands like Mikrotron, PCO, The Imaging Source, Basler, IDS, AVT, Andor, Optronis, Photron, Phantom, etc, and several frame grabbers brands like Active Silicon, Euresys, Silicon Software, Matrox, etc, are supported. eyeMOTION is regularly updated to support new brands and references of cameras and frame grabbers.

Simultaneous recording: Another great feature of eyeMOTION is its ability to simultaneously control multiple, heterogeneous digital imaging systems, whatever the interface among USB, Ethernet, Camera Link, CoaxPress, and whatever the data rates. And also the place where data are recorded either in PC memory or direct to disks.

Control of additional devices: to design an imaging bench, eyeMOTION is not only able to control digital imaging devices, but also a large set of different devices like DAQ board, delay generator, AWG to manage I/O signals, LASER, controller for translation and rotation stages, filter wheels, intensifiers, GPS and accelerometers. Like for cameras, each new version of eyeMOTION provides control on new additional devices.
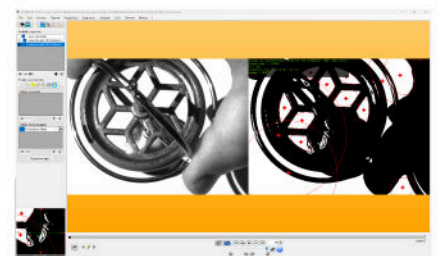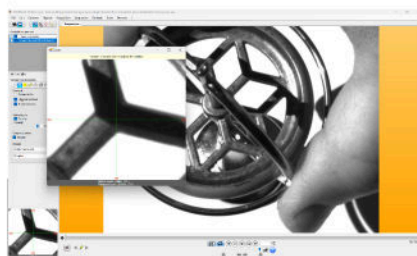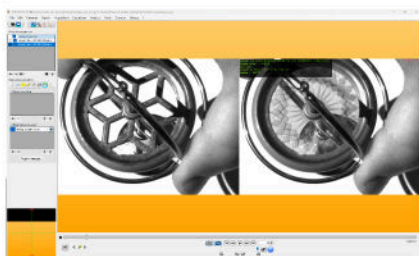
Full set of tools: user friendlyness in mind, eyeMOTION includes a full set of tools like zoom windows, visual guides, images statistics, spatial calibration, spatial measurements, detached view, remote preview, various triggers handlings (software, closed loop, external signal, network, sound, image, etc), cameras synchronization management, broadcasting, scheduler, disk management, snapshot, time sequence management, playback, proprietary quick save format, multiple export format type in mov, avi, bmp, jpg, tiff, png, multi tiff, etc. Sequences can even be enriched with graphic layers and some manual and automatic tracking data in post-processing. Supported image formats are up to 32 bit depth integer and floating point.

Image processing in post or real-time: to go beyond a simple image acquisition bench, eyeMOTION provides plugins for image processing, either in post or real-time. These plugins can be standard, provided by us on demand, and even hand made by users on top of an SDK. Depending on the required operating speed, image processing algorithms can be run either on CPU or GPU.

Features

Equipped with as many features, eyeMOTION is ideal for:

- Record video sequences from single to multiple cameras*
- Record video sequences in PC memory or directly to disk for long time recordings*
- Record video sequences up to several GBytes/s*
- Schedule video sequences acquisition and saving, control additional devices (DAQ board, LASER, stage controller, filter wheel, intensifier, GPS, accelerometer, etc.)
- Process video stream in real-time
- Post-process video sequences
- Save, export, import and play video sequences

*only limited by hardware support

Applications

- High-speed digital imaging
- High resolution digital imaging
- High dynamics digital imaging
- Long time recording for high data rate
- Multi camera acquisition and processing
- Trouble shooting
- Metrology
- Object tracking
- Counting
- Raising alerts
- Feedback loops
- Quality monitoring
- ....