

## EyeMotion

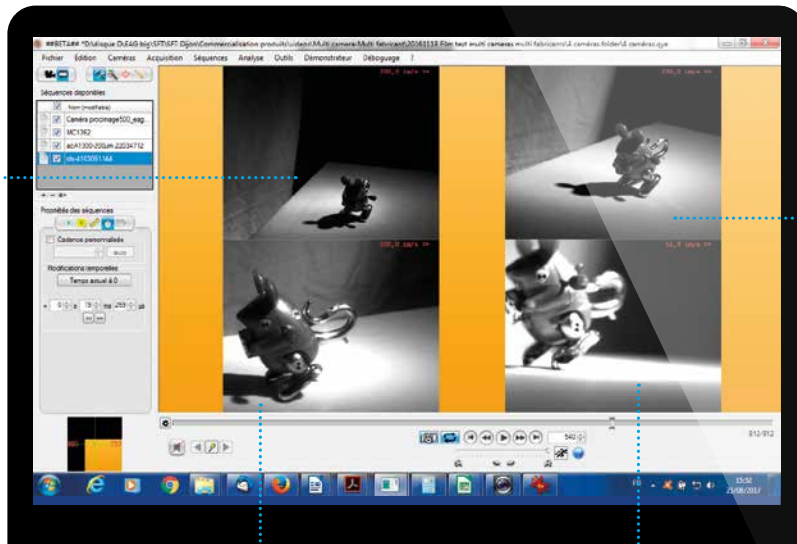
Software for acquisition and post-processing of video sequences, as well as the processing of real-time images from a video stream.



EyeMotion was developed for the processing of real-time images within large video streams, up to several Gpx / sec. The software is suitable for fast cameras, high resolution cameras and / or several simultaneous cameras. Originally designed for our fast and intelligent Proclmage cameras, it is now compatible with different manufacturers of third-party cameras. EyeMotion has a multitude of standard or optional features to respond as accurately as possible.



500 fps  
1280 x 1024  
USB 3.0



500 fps  
1280 x 1024  
Camera Link



200 fps  
1280 x 1024  
USB 3.0

60 fps  
1280 x 1024  
GigE



These features are divided into 5 main categories:

- processing of real-time images from a video stream
- acquisition of a video sequence
- reading, importing, saving and exporting of a sequence video
- the post-processing of a video sequence
- control of add-on equipment

EyeMotion integrates native post-treatment and real-time image processing.

Plugins allow you to operate on the video flow in the software environment and give an entry point to the user for inserting a processed image. The list of these plugins is in constant evolution.

# SEE FAST TECHNOLOGIES

Programming is required under Framework.NET. The algorithms can run both CPU and GPU. The performance of plugins in terms of speed of execution depends on their complexity and the material resources available.

**OS supported:** Windows 7, 8, 10, 32-bit and 64-bit versions

**Language supported:** French, English, German, Spanish (possibility of others languages on request)

Eyemotion can also manage other computerized control devices, like DAQ boards, light & LASER illumination, etc...



## Applications

- fast camera
- high resolution camera
- high dynamic range camera
- multi-camera
- troubleshooting
- metrology
- object tracking
- counting
- warning
- feedback loop
- quality process control
- development of Image processing
- ...

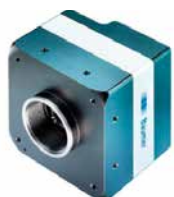
## Professional networks

- R&D
- production line
- defence
- security
- bio-imaging
- robotics
- automotive
- railway
- energy
- agro-food
- biomechanics
- sport
- education
- ...



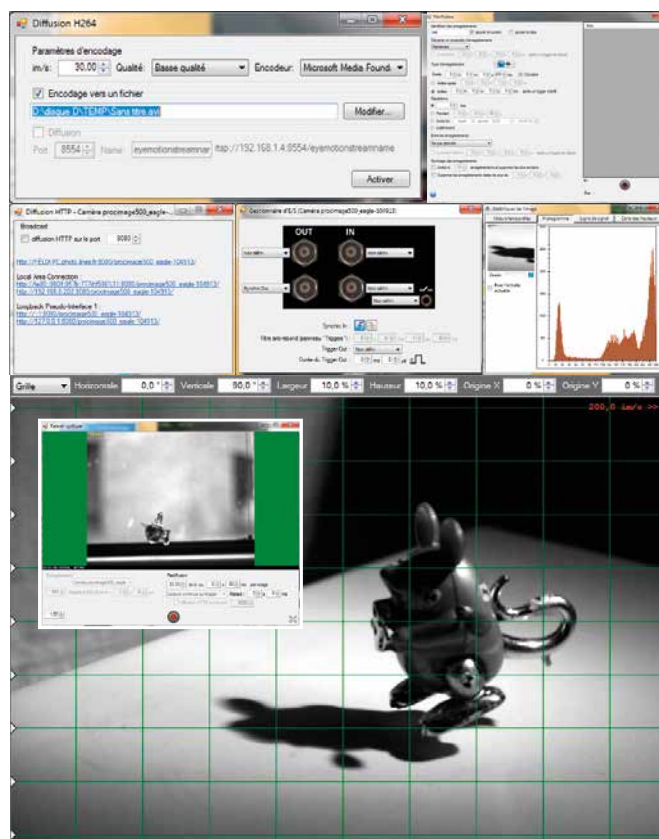
## Acquisition-related capabilities

- simultaneous multi-camera monochrome or colour management, multi-reference, multi-manufacturer in one interface
- supported camera interfaces: GigE, USB 2.0, USB 3.0, Camera Link, HS Link Camera, Coaxpress, 10 Gbit Ethernet
- simultaneous management of multiple acquisition cards associated with cameras
- camera settings: resolution, frame rate, exposure time, region of interest and more if available
- retrieval of the camera timestamp if available, timestamp PC
- management of all coding depths from 8 to 32 bits per channel
- tools for taking pictures: zoom, detached view, guides, histograms, line and height map, freeze frame, histogram stretching, rotations, mirrors
- Remote viewing with replay possibility of correction of geometrical deformations (on request)
- choice by camera of recording in PC RAM or directly on disc with choice of disc
- choice of either direct or circular recording
- PC resource management for long duration recording
- I / O management (if available)
- software, network, sound trigger
- external trigger, from camera to camera
- definition of the recording time before and after trigger
- record planning
- cyclical slow motion
- plugins



## Features associated with playback, saving, export, and import

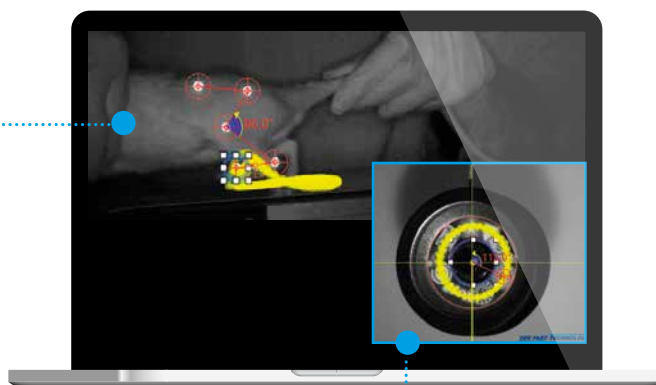
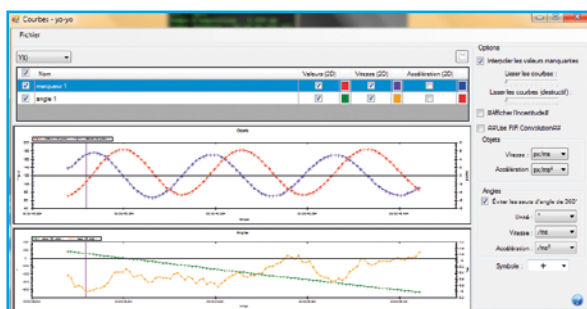
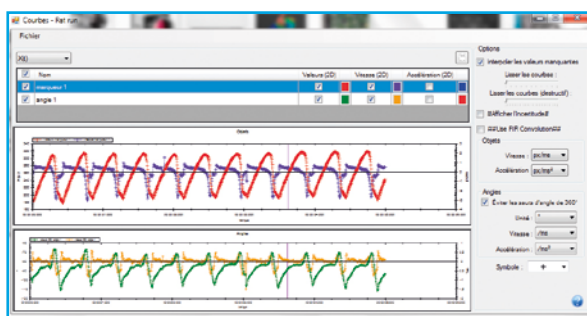
- forward, reverse, slow, stop, pause, loop
- multiview with selection of displayed views, moving, overlay with opacity management
- common playback bar for all views
- manually adjustable time synchronization (time reinterpretation, film calibration, customization of cadence)
- deleting image intervals
- various display options / geometry: orientation, mirror, zoom, correction of distortion...
- various tools: zoom, guides, line histograms and height map, image capture, histogram stretch with management of all encoding depths from 8 to 32 bits per channel
- fast backup to a proprietary format
- export of the sequence in .mov and .avi
- export of the sequence into BMP, JPEG, PNG, TIFF
- export in raw data in CSV, EXR, FITS2D, FITS3D, PNG and TIFF 16 bits, YML, RAW
- opening videos in .mov and .avi format and images in BMP, JPEG, PNG, TIFF format



## Features associated with post-processing of a video clip

- superimposing and animating shapes, images, videos, texts, markers
- view Calibration
- manual point tracking
- automatic tracking of blob and patterns

- display of position, speed and acceleration data.
- plugins: decimation, height map, binarization, + blob, image difference, DFT, recolouring, Matlab, Labview, Adaptive Vision \*, Python, etc..



## Features associated with real-time image processing

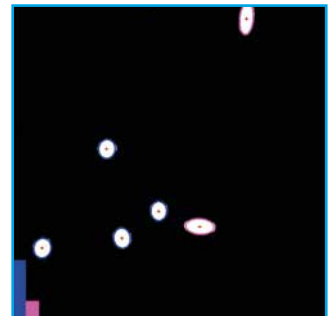
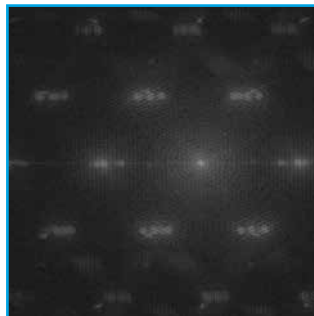
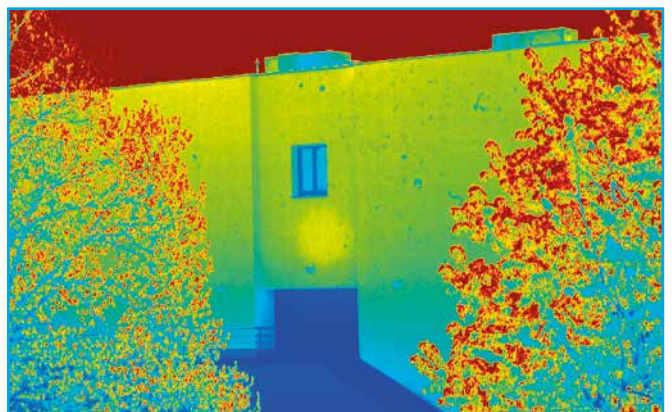
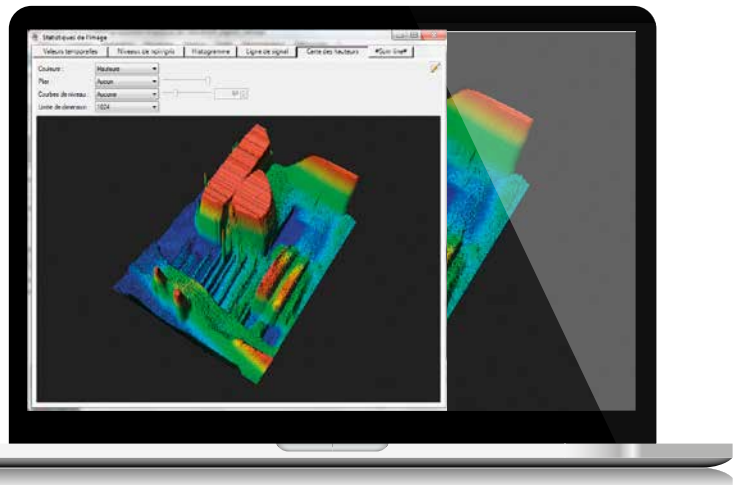
- noise correction
- superimposition of shapes, images, texts, markers
- view Calibration
- plugins: decimation, trigger frames, trigger image, DFT, height map, image difference, recolouring, sliding average, Matlab, Labview, Adaptive Vision\*, Python.

## List of paid options

- recording of Analog and Digital signal
- control of Cavilux LASER
- scheduler for recording
- view from a webcam
- remote view
- cyclical slow motion
- real-time encoding in H264
- overlay tools
- automatic tracking tools
- plugins\*\* :
  - rights to use customer made plugins
  - Time-lapse
  - trigger image
  - matlab
  - labview
  - adaptive Vision\*
  - development of custom plugin

\* Library of image processing operators

\*\* List in constant evolution



## See Fast Technologies

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