

# ET

## Caltech Eye-tracking Software Toolbox

Current Version: 0.8b

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## Video Format

ET currently supports the Quicktime 6+ (.mov) interlaced NTSC (480p) format only. This reflects the video support of Matlab 2013a and the need for interlaced video to estimate and remove MRI signal artifacts.

Two video files are required:

1. A calibration video during which the subject fixates on 9 sequentially or randomly presented spots at 10%, 50% and 90% of the visible frame.
2. A gaze video. This is the experimental data which will use the calibration calculated from 1. to generate accurate eye tracking data. This may be rotated and will typically be contaminated by MRI RF and gradient induction artifacts which will be removed during pupilometry.

These three files should have names of the form:

1. <Stub>\_Cal.mov
2. <Stub>\_Gaze.mov

Where <Stub> can be any text string identifying the subject, session, condition, etc.

## Converting Raw Data from .mpg to .mov or .avi Format

The Quicktime X Player is bundled with OS X Snow Leopard and Lion and allows simple conversion to .mov format with length trimming while preserving the interlaced format of the original .mpg files generated by the CBIC video capture software. Load the .mpg video into Quicktime Player and use File>Export (or Shift-Command-S) to convert to .mov format. Select the 480p option under the Format menu.

## Trimming Videos

This can be used to separate the calibration and validation videos which are generally recorded in a single video with a long eye blink separating the two phases. Press Command-T and move the trim end-point sliders until you're happy with the selection, then press Trim. Export to .mov format as before.