# E-Prime Extensions for SMI™

All-In-One High Speed Remote Eye Tracking Solutions



E-Prime Extensions for SMI<sup>™</sup> adds eye gaze and eye movement capabilities to existing and novel E-Prime experiments. Create new paradigms with E-Studio's graphical design interface and connect with flexible Remote Eye Tracking technologies by SensoMotoric Instruments.





- Millisecond precision for stimulus presentation and inter-stimulus timing
- Comprehensive: Accommodates simple to complex experiments from design to analysis
- Graphical design interface illustrating experiment structure at a glance
- Full scripting language affording tremendous flexibility and power to the system
- Supports a wide range of devices including sound, display, mouse, Chronos, keyboard, and ports
- Present text, images, movies and sound
- Basic support for interfacing with external devices (e.g., EEG, MRI, Eye Tracking)
   www.pstnet.com

#### **SMI<sup>®</sup> Features**

- SMI Remote Eye Tracking with 60-500 Hz sampling rate, no head restraint necessary
- Measures gaze position on surfaces (e.g. screen, television, projector) and pupil size in pixels or millimeters
- Exports recorded data to ASCII for post-processing using statistics software (e.g. MATLAB®, SPSS® and Excel®)
- SMI SDK with sample code brings tremendous flexibility to the systems
- Easily connects with other devices (EEG, bio sensors, camera observation systems etc.) www.smivision.com





## **Product Benefits for E-Prime Extensions for SMI™**

- Create interactive or passive eye tracking paradigms
- Create paradigms which change based on participant eye gaze data, AOI (Areas of Interest) hit tests, fixation and user interaction
- Combine eye gaze data with E-Prime condition data for powerful analysis
- Train participants to fixate and control eye movements
- Give feedback on vigilance or attentive behaviors
- Supports Diagnostic and Interactive studies:
  - Face perception and recognition
  - Infant studies
  - Reading (sliding window)
  - Attention patterns and behavior
  - Visual search
  - Scene recognition



# **Key functionalities:**

- Allows for the use of SMI Remote Eye Tracking as straightforward input device for E-Prime
- Supports multiple AOI's. Regions are defined dynamically as stimuli are drawn to the screen
- Supports dynamic definitions of fixation and dwell time
- Enables current paradigms to use eye tracking to corroborate participant compliance, fixation and cognitive strategies
- Enables paradigms to show feedback for training purposes
- Allows to start and stop trials contingent on eye gaze, fixation or eye movement criterion
- · Adds SMI eye tracking control directly to the E-Studio experiment design environment
- Provides script library to allow additional run time processing of data
- Enables calibration inside or outside of E-Prime
- Allows the overlay of eye gaze data with your E-Prime stimuli
- · Allows to stop and start eye tracker to collect data selectively
- · Allows to filter participant data based on eye gaze, fixation, validity and eye movements

### **Includes**

- Library of sample paradigms: used for learning and paradigm adaptation
- Support: E-Prime support and SMI hardware support







# **Customized To Fit Your Needs**



Usability analysis
Psychological studies
Visual perception research
Neuroscience

Human factors research
Advertising studies
Reading and dyslexia studies
Infant and children studies

Low vision studies
Flight and driving simulators
Eye based computer interaction
Psycholinguistics





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