

## Integration of ASL Eyetracking with Vizard and nVisor SX

Miniature Optics Eye Tracker

ASL's Series 6000 Head Mounted Mini Optics installed in NVIS nVisor SX combined with WorldViz Vizard VR software provide a complete integrated solution.

ASL's Head Mounted Mini Optics includes a lightweight, miniature optics module in the Model 6000 eye tracking system.

The miniature optics module is ideal for applications requiring the use of virtual reality helmets, head mounted displays and wearable computers. The optics module can be easily modified to suit the particular device into which it will be mounted.

Available in standard 60 Hz or high speed 120/240 Hz, recorded data include time, x and y eye position coordinates, and pupil diameter. External data events/marks can be recorded along with the eye tracker data. If the Head Mounted Mini Optics configuration includes the optional magnetic head tracker, head position and orientation are also recorded.

Model Head Mounted Mini Optics EYEPOS operating software provides the system operator



with the ability to enter calibration and participant data, and specify the operating parameters of the Model Head Mounted Mini Optics. EYEPOS also converts the eye tracker data records into ASCII format for transmission to other computers or for offline spreadsheet analysis. Data is available directly from the Model 6000 control unit through a serial port (RS232). The Model Head Mounted Mini Optics' interface PC can be connected to an Ethernet network, permitting data analysis from remote locations.

The Head Mounted Mini Optics can be integrated with a NVIS model nVisor SX display. The miniature eye tracker optics are mounted on the left side of the head mounted display, and views the reflection of the eye from a tilted beam splitter installed at the front of the display eye piece.

ASL and NVIS hardware are natively supported by the WorldViz VR software toolkit Vizard for creating immersive, interactive 3D content.

## • Eye Tracking Optics

The eye tracker optics module contains a miniature camera, an LED light source, and a reflecting mirror to bend the optical path.

## Optional Equipment — ASL Modular System

The 6000 control unit provided with the Head Mounted Mini Optics can be configured to work with the following ASL products:

- R6— Remote Optics
- R6-HS—Remote High Speed Optics
- R-LRO—Long Range Optics for fMRI Environment
- EyeStart Chinrest Mounted Optic
- H6—Head Mounted Optics
- H-HS6—Head Mounted High Speed Optics



## **SPECIFICATIONS**

**⊙ Control Unit**: Dimensions (H/W/D): 3 in/9.75 in/10.25 in

Weight: 4.25 lbs

Power: 100-240 VAC 25 watts

Display: 9 inch b&w monitors for eye and scene cameras

• Miniature optics: System accuracy: 0.5 degree visual angle

Resolution: 0.25 degree visual angle

Head movement: Unlimited

Visual range: 50 degrees horizontally, 40 degrees vertically

O Included equipment: Series 6000 Control Unit

Miniature optics mounted in Customer supplied HMD Display Monitor, black & white or internal frame grabber

EYEPOS operating software EYENAL data analysis software