ASL Mobile Eye-*XG*

*Wireless, Portable Eye Tracking Solution
with EYEHEAD™ Integration*

Eye and Head Position

ASL offers you the turnkey solution when conducting research in complex environments such as driving or flight simulators. With over 15 years of proven success, ASL receives head position information from a variety of leading motion capture devices. Our exclusive EYE-HEAD™ integration package, for use with Mobile Eye-XG glasses, combines eye and head position data to compute real time point of regard on multiple surfaces.

Freedom of Movement

With Mobile Eye-XG, real time wireless data transmission allows participants to move naturally in their environment. The required motion tracker provides the necessary six degrees of freedom head position. In order to provide the most effective solution for multiple environments you are free to choose the motion capture technology which best meets your requirements. We support systems from many leading companies such as NDI, Ascension, Vicon, Qualisys, Phoenix Technologies, Polhemus, and Intersense.

View Multiple Surfaces

The EYEHEAD™ "environment" will calculate point of gaze on up to 20 surfaces of interest. Typical surfaces include monitor screens, keyboards, simulator panels, poster displays, walls, and etc. EYEHEAD™ data consists of the identification number of the scene surface being viewed, coordinates of the gaze point on that surface, the distance of the eye from the spot being fixated, and pupil diameter.

Advantages

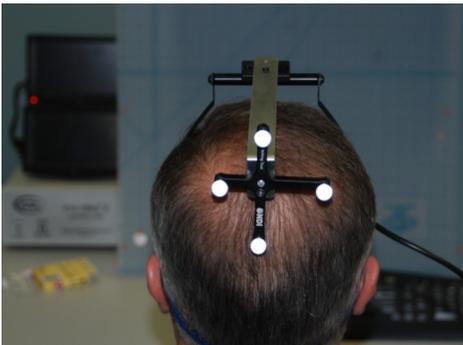What are the advantages of the ASL system when combined with motion capture devices?

- *Computes the locations of the gaze vector in true 3 dimensional space in real time.*

- *Determines attention on multiple screens or surfaces, whose location, orientation and boundaries are known in true 3 D space.*

- *Surfaces are easily specified to the system using a pointing device (3 points define a surface).*

- *System gives long term accuracy and does not require frequent recalibration.*

- *Eye and head data is automatically synchronized.*

EYEHEAD™ Integration

Proven integration with the leading motion capture solutions. The combination of the wireless motion capture devices and the Mobile Eye-XG offers unique insight into your participant's eye and head motion. The real time video will display the participant's point of gaze on one or more multiple surfaces. The digital data will report both eye and 6 DOF head position. Pupil information is also available. The Mobile Eye-XG can synchronize data from other devices as well. The ASL Results Plus GM analysis software will quickly provide data both statistically and graphically.

Mobile Eye-XG with NDI Polaris system

Mobile Eye-XG with Real Time wireless data transmission.

Northern Digital Inc.
RESEARCH-GRADE MOTION CAPTURE

QUALISYS
Motion Capture Systems

phoenix technologies

ART

InterSense
Sensing Every Move

Ascension
Technology Corporation

POLHEMUS
INNOVATION IN MOTION™

VICON

The ASL EYEHEAD data is quickly analyzed with ASL Results Plus. ASL Results Plus is designed to process and analyze data collected with ASL eye trackers. It can be used to:

- examine and plot raw data
- associate scene images with sections of gaze data
- define areas of interest on images
- reduce gaze data to fixations as well as "dwells"
- display data graphically
    - time plots
    - X/Y scan plots superimposed on scene image
    - heat map plots on scene image
- combine results across trials or subjects by averaging statistical data from each or by pooling the original data
- export results in Excel or ASCII text format for further custom analyses

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