

# 2010 - 2011 Laboratory and Classroom Modernization Request

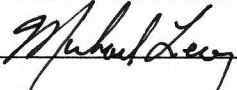
## Dean's Office

Submit to George Acker, Campus Planner (210 Administration Building)  
By November 5, 2009

Lab \_\_\_\_\_ Technical Communication Resource Center / Website Usability Testing Center  
Location Harvey Hall 205

Department(s) English and Philosophy

Priority 1 of 1

Chair Signature 

College College of Arts, Humanities and Social Sciences

Priority 2 of 5

Dean Signature 

### I. Cost Estimate

	Lab/Classroom Modernization Funds
Equipment	\$42,833
Services and Supplies	\$5,500
Remodeling	N/A
Total	\$48,333

### II. Describe Equipment Requirements

(Please list items to be purchased and estimated costs.)

We are planning to purchase the following equipment.

#### Portable Usability Lab

The Observer XT 9.0: Video Module (\$7,525)

Portable Observation Lab (\$5,500)

Onsite Installation & Training (\$3,250)

3-Year Service Contract (\$ 1,900)

Estimated Shipping & Handling (\$350)

#### Eye Tracking System

Eye-Trac Desktop Eye Tracking System (\$25,308)

Gazetracker Full (\$4,500)

### III. Describe Services and Supplies Requirements

The Department of English and Philosophy will purchase a computer for the eye tracking system. There are no other needed services or supplies besides the regular cleaning that would occur from the janitorial staff.

#### IV. Describe Remodeling Requirements and Cost Estimate

The equipment will be housed in the Technical Communication Resource Center/Website Usability Testing Center (Harvey Hall 205), which already has strictly managed keycard access. The room is accessible to students with disabilities. There are no other remodeling requirements besides the installation of the eye tracking system into a computer.

#### V. Describe Plan for Continuing Costs Associated with Request, if Applicable

We will renew the service contract for the Portable Usability Lab after the first three years. We anticipate that the lab will generate sufficient usability contracts, which will help fund the service contract renewal. The Website Usability Testing Center has had income-generating projects before. Adding the two systems will strengthen our competitiveness.

#### VI. What other funds will be used in this project?

There are currently no other funds available. This proposal is 100% dependent on the Lab Mod funds.

#### VII. If Lab Mod Matching Funds are requested, what is the funding source?

As noted in number VI, there is no other funding source at this time.

#### VIII. Pedagogical Rationale/Justification of the Request

This request stems from the growth of the Technical Communication program, including our increased offering in usability and our new Master's degree in Technical and Professional Communication (MSTPC). **We are requesting funds that will solve a big challenge at a reasonable cost.** Employers expect our students to have hands-on experience with usability equipment such as a usability lab. Currently, we don't have this equipment.

Usability is the polytechnic flagship of our program. It is an area valued by employers and attractive for prospective students, and it has considerable potential to expand industry connections and bring money to the university. **Yet, our students learn only general concepts but don't have the opportunity to actually use standard usability equipment.** Purchasing the Portable Usability Lab and the Eye Tracking System will give our students that important set of skills they need.

The need for the two systems becomes more pressing at the Master's level for we will teach graduate students who are looking to expand their knowledge and skills at the advanced level; **our MSTPC will look weak when applicants, mostly working professionals, find out that we don't have the usability infrastructure our competitors have.**

Our program is ready for it. Program faculty Quan Zhou (Ph.D., Univ. of Washington) has the experience in operating usability equipment; he has the expertise to oversee the use of the two systems we are pursuing.

Specifically, the two systems will significantly improve our program in the following ways:

- **They finally enable us to teach how to use a usability lab, a skill already being taught in most technical communication programs in the U.S.** They enhance our problem-solving pedagogy and applied learning in not only the Usability course but various other program courses at the undergraduate and graduate level.
- **Our Website Usability Testing Center will finally become a complete lab, empowered with the ability to conduct quantitative and empirical research.** The equipment will create many opportunities for undergraduate students to engage in publishable research.
- **Having the two systems is an excellent strategy to bring up enrollment numbers.** The systems significantly increase the rigor of our program.
- **The two systems are vital for the MSTPC program for they support graduate research in usability and user-centered design.** The eye tracking equipment gives us an edge that many competitors don't have. With the Echo360 distance learning system in Harvey 205, online students will be able to witness and analyze usability tests and eye tracking studies.
- **The portable lab enables us to easily visit our clients and conduct usability tests on-site.** This makes it possible, for the first time, to test proprietary and internal corporate documents; we'll have more mobility to make industry connections, despite our small-town location. Predictably, the equipment makes us a desirable destination for regional and local organizations that have a need in usability. We will create more client-based projects for our students. We intend to develop a protocol for bringing money into the university.

The funds we are requesting don't just improve our program. It lets us jump from have-not to have-it-all in usability.

**IX. List of Courses to be Served by Lab/Classroom**

MSTPC courses

ENGL 700 Theoretical Foundations and Research Methods in Technical Communication  
ENGL 730 User-Centered Research for Technical Communicators

BSTC courses

ENGL 121 Introduction to Technical Communication  
ENGL 361 Hypertext Writing  
ENGL 385 Document Design  
ENGL 388 Writing for Multimedia  
ENGL 425 Usability Design and Testing  
ENGL 430 Writing for Content Management

**X. Statement on How Project Meets Needs of Students with Disabilities**

(Please consult with UW-Stout Disability Services)

Both the portable usability lab and the eye tracking system are compact and easy to access by anyone. The portable usability lab allows students to access usability equipment in flexible ways. The Website Usability Testing Center already provides access to students with disabilities.

Innovative solutions for behavioral research

Noldus Information Technology, Inc.  
1503 Edwards Ferry Road, Suite 201  
Leesburg, Virginia 20176  
U.S.A.

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Email [info@noldus.com](mailto:info@noldus.com)

Web [www.noldus.com](http://www.noldus.com)

**Prepared for:** Dr. Quan Zhou  
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Menomonie, WI 54751

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**Email:** [zhouq@uwstout.edu](mailto:zhouq@uwstout.edu)

**Date:** October 23, 2009

**Expiration:** December 23, 2009



## The Observer® XT 9.0: Video Module

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**Description:** System for the collection, analysis, presentation and management of observational data live and on digital video.

- Software:**
- The Observer® XT 9.0 Software
  - The Observer® XT 9.0 Video Module (2 digital video files)
  - The Observer® XT 9.0 Advanced Analysis Module

**Hardware:**

- License Key (USB)

**Documentation:**

- Reference Manual
- CD with Sample Applications

- Features:**
- User-friendly Configuration Designer
  - User-friendly Event Logging and Freeform Annotation, Live or From Video
  - FireWire (IEEE 1394) Support, (i.e. DV-AVI). FireWire Card/Port Required
  - Synchronous Recording of 2 Separate Video Files (via FireWire, USB)
  - Compatible with supported MPEG-1/2/4, DV-AVI, AVI Digital Video Files\*
  - Powerful and Intuitive Data Selection
  - Data Exploration & Visualization: Time-Event Table, Time-Event Plot
  - Data Analysis: Descriptive Statistics, Reliability Analysis, Lag Sequential
  - Project Backup & Restore Utility
  - Compatible with eye trackers, DAQs, and third party hardware/software

- Services:**
- Technical Support by Phone or E-mail for 1 year
  - Maintenance Releases

*\* Contact your sales representative to discuss recommended and supported digital video formats*

**List Price:** \$ 15,050.00

**Academic Price:** \$ 7,525.00

## Portable Observation Lab

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**Description:** Designed for easy transportation, requires very little set-up time, and is ideal for observing people in natural environment: at home, in classrooms or in offices. The Observer<sup>®</sup> XT integrates and synchronizes all video and data recordings.

**Requires:**

- *The Observer XT 9.0: Video Module*

**Hardware:**

- Laptop
- (2) Digital Video Camcorders
- (2) Mini Tripods
- Omni-directional Desktop Microphone
- Moderator Microphone
- Carrying Case
- Power Supplies, Cables, Accessories

**Services:**

- Technical Support via Phone / Email for 1 Year
- Integration & Testing

**Price:** \$ 5,500.00

## The Observer<sup>®</sup> XT 9.0: Onsite Training & Installation

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**Description:** One full day of training for the collection, analysis, presentation and management of observational data using The Observer XT.

**Includes:**

- Project Design
- Scoring and Coding Live or from Video
- Data Profiles & Results Analysis
- Project & Digital Video Management
- Customized Project & Configuration ready for coding
- Data File Integration

**Services:**

- Travel & Lodging Expenses Included
- Installation of all hardware/software components purchased from Noldus

**List Price:** \$ 4,500.00

**Academic Discount:** - \$ (1,250.00)

**Academic Price:** \$ 3,250.00

## SERVICE CONTRACTS

*Service Features:*

	BASIC	PLUS
Technical Support via Phone & E-mail	●	●
Technical support via Web & Internet Remote Help	●	●
Access to Technical Support Online Knowledgebase	●	●
Subscription to Yearly Software Upgrades		●
Special Discounts for Remote Trainings & Rentals		●
Reduced Rates for Onsite Support & Training Visit		
Extended Warranty on Hardware Items		
Hardware Replacement & Onsite Installation *		
<b>3-Year Contract Price:</b>	<b>\$ 750.00</b>	<b>\$ 1,900.00</b>

Explanation of certain service features:

*Subscription to yearly Software Upgrade*– Included in the PLUS & PLATINUM contract plans. Assures receipt of the latest release of the Noldus software products covered under your contract.

*Special Discounts for Remote Trainings & Rentals* - Included in the PLUS & PLATINUM contract plans. Receive 50% discount on remote training courses. Receive 10% discount on rentals or leases of Noldus software or systems.

*Reduced Rates for Onsite Support Visit*– Included in a PLATINUM contract plan. Receive reduced rates for onsite support and training visit.

*Extended Warranty on Hardware Items*– Included in a PLATINUM contract plan. Warranties on hardware items purchased from Noldus will be extended for the duration of the contract agreement. During this period, Noldus will repair or replace at its discretion any equipment found to be defective in materials or workmanship. Abuse, misuse, or unauthorized repairs will void any warranty.

*Hardware Replacement & Onsite Installation \** - Included in a PLATINUM contract plan. Minimize downtime due to unexpected equipment failure. Includes shipping costs of replacement hardware components and onsite installation by a qualified Noldus technician. \* Travel and lodging costs for onsite visit are not included.

\*The items covered by the service contracts are for Noldus proprietary software and related hardware products only. The contracts do not cover third party software and hardware systems. Additional support contracts for third party systems are available upon request.

## Quote Summary

QTY	Description	Unit Price	Line Total
1	The Observer® XT 9.0: Video Module	\$ 7,525.00	\$7,525.00
1	Portable Observation Lab	\$5,500.00	\$5,500.00
1	Onsite Installation & Training	\$3,250.00	\$3,250.00
1	3-Year (BASIC/PLUS/PREMIUM) Service Contract	\$1,900.00	\$1,900.00
1	Estimated Shipping & Handling	\$350.00	\$350.00
		<b>TOTAL:</b>	<b>\$ 18,525.00</b>

**EIN#:** 98-0160706

**D&B#:** 95-895-1097

**Submit Orders to:** Noldus Information Technology Inc.  
Via mail: 1503 Edwards Ferry Road, Suite 201 Leesburg, VA 20176  
Via Fax: 703-771-0441  
Via Email: orders@noldus.com

**Payment Terms:** NET 15 (days)

**Pricing:** USD (\$)

**Shipment Terms:** FOB Origin

**Est. Delivery Time (Goods):** 60-90 Days

**Prepared by:** Aaron Gwaltney  
Sales Engineer

Please sign and return a copy of this quote upon placing an order.

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Date: \_\_\_\_\_

*By signing, the authorized purchasing agent agrees to the terms and conditions outlined herein for purchase of all goods and services from Noldus Information Technology Inc.*

## TERMS & CONDITIONS

### Prices & Payment Methods

All prices listed are in USD (\$) and is the only acceptable currency we accept. The price above is for purchases made by cash, purchase order with credit terms, check payment or prepayment and wire transfer payment or prepayment only. For purchases by any other means, including credit cards, prices will be 5% higher than the listed cash price. (For the items on this quote, this amount will be \$ 0.00. The Total Price on this quote for non-cash transactions will be \$ 0.00.) We accept: Visa and MasterCard. For placing a credit card order, please request a copy of our Credit Card Order Form from [orders@noldus.com](mailto:orders@noldus.com).

### Applicable Taxes

Noldus does not have the ability to collect sales tax outside the state of Virginia. If your business is taxable in the state of Virginia, applicable taxes will be added to your invoice. The prices quoted on this estimate do not include any applicable state or local taxes. Any applicable taxes that are incurred during the procurement of the above stated goods or services by buyers outside the state of Virginia will be deferred as an associated cost to the purchaser and will not be added to the final invoice. Please remit payment to the appropriate agency, unless otherwise exempt.

### Date Validity

The prices quoted above are valid for 60 days from the date of issue. We cannot guarantee prices outside of this time range. If a quote has expired, please contact your designated sales representative to receive an updated quote before placing an order.

### Shipping & Handling

Estimated shipping & handling fees are quoted above. Shipping & handling must be prepaid and will be added to the invoice. We currently ship via UPS to physical addresses (street name/number required) within the continental United States, Alaska, Hawaii, Puerto Rico and Canada. For shipments to Mexico, please contact your sales representative to discuss alternate options. Partial shipments are possible upon written authorization. Items to be shipped are at the discretion of the vendor.

### Delivery Time

Our commitment is to process and ship your order in the shortest time possible. Delivery time varies depending on the order type and the components. An estimated delivery time is stated on quotes, but cannot be guaranteed. Any delivery delays will be communicated via your sales representative.

### Warranties

We provide a standard, limited warranty for 1 year on all Noldus-made products. All non-Noldus hardware products are provided with the original manufacturers' standard warranty. During this period, Noldus will repair or replace at its discretion any equipment found to be defective in materials or workmanship. Abuse, misuse, or unauthorized repairs will void any warranty.

### Service Contracts

A service contract option for 3 years is quoted as standard on all price estimates. Additional service contract options are available. For a complete list of options, please contact your sales representative or [sales@noldus.com](mailto:sales@noldus.com). The items covered by the service contracts are for Noldus proprietary software and related hardware products only. The contracts do not cover third party software and hardware systems. Additional support contracts for third party systems are available upon request.

### 30-Day Money Back Guarantee / Damaged & Missing Goods

For complete customer satisfaction, Noldus offers a 30-day money back guarantee on all standard hardware and software orders\*. The 30-day period commences upon receipt of your order. Damaged goods or missing items must be reported within 15 days of receipt of the order. Please contact us for authorization for return, repair, or replacement of any goods prior to returning any items.

*\*30-Day money back guarantee not applicable on customized solutions, services rendered, or shipping costs.*





**Applied Science Laboratories**

Applied Science Laboratories  
175 Middlesex Turnpike  
Bedford, MA 01730  
781-275-3388 Fax  
781-275-4000

**QUOTE**

**Quote #** ASLQ4664  
**Date** 10/22/09  
**Sales Rep.** Michael

**Quote To:**

University of Wisconsin, Stout  
Quan Zhou  
Harvey 202-F  
Department of English and Philosophy  
Menomonie, WI 54751

**Ship To:**

University of Wisconsin, Stout  
Quan Zhou  
Harvey 202-F  
Department of English and Philosophy  
Menomonie, WI 54751

Qty	Part #	Description	Unit List Price	Educational Price
1	D6-HT-C	Eye-Trac Desktop Eye Tracking System. Includes EYE-TRAC 6 Control Unit integrated with two real eye and scene images, desktop 60Hz Optics, facial recognition software to compensate for head movement, wide angle locating camera, scan converter, Xdat cable, eye-trac software with autocalibration and autothresholding, interface computer, 19" stimulus monitor, all cables and instructional CD.	\$28,120.00	\$25,308.00
1	G002FS	Gazetracker Full - Presentation and Analysis of Static and Dynamic Recorded Images. Gazetracker software is installed in the display computer not on the eye tracking computer.	\$4,500.00	\$4,500.00
			SubTotal	\$29,808.00
			<b>Total</b>	<b>\$29,808.00</b>

Payment terms are Net 10. Prices quoted in US Dollars. This quotation is valid for 90 days. Delivery is within 30 days unless otherwise stated in product descriptions. All products covered by a 12 month limited warranty. The Customer will be responsible for any inspections and alternations necessary to meet governmental or institutional electrical and safety requirements. Prices quoted do not include shipping, insurance, custom taxes, or duties.

Noldus is proud to introduce a new solution that can really make the difference in your behavioral research. A usability lab in a suitcase is a practical and flexible solution. Interested? Read on!

Our portable usability lab is the complete solution for on-site usability testing. You can easily study Human-Computer Interaction (HCI) in your test participant's office. Designed for easy transportation, our portable lab is fitted in one suitcase.

#### **BENEFITS**

- Perform field research studies.
- Synchronous recordings of human computer interactions, video, and audio.
- High resolution screen capturing, operating system independent.
- Automatic recording of computer events.
- Designed for traveling.
- Quick set-up.
- Cost-effective.

#### **STUDY HUMAN FACTORS ON-SITE**

If you really want to know what happens at the workplace, study it on-site using our portable usability lab. You can make screen captures, record video, score tasks, usability hits and context, and record mouse clicks and keystrokes.



#### **DESIGNED FOR TRAVELING**

The entire lab weighs less than 10 kg (22 lbs) and is built into a rugged suitcase. Noldus portable labs

are specially designed for traveling. Carry it as hand luggage on an airplane, or put it in the trunk of your car.



#### **QUICK SET-UP**

Once you have arrived on site, you can start working quickly! A Noldus portable lab is set up within 5 minutes.

#### **USER-FRIENDLY**

A Noldus portable lab is a user-friendly package, consisting of high quality components to guarantee excellent results. Using good equipment can save you valuable time in an on-site observation. And less time means earlier results against less cost!

#### **HIGH QUALITY COMPONENTS**

Our portable lab contains all the equipment you need to make on-site usability recordings, including a laptop, a digital video camera, and a digital screen capture device.

As in all Noldus labs, The Observer® XT software is the core of the portable lab. It allows you to add comments, mark tasks, and score usability hits during screen capture and video recording. The Observer XT helps you to maximize the value of live or video-recorded sessions. It is combined with uLog™, our innovative tool for automatic user-system inter-action recording.

<b>Specs</b>	
Weight	Less than 10 kg (22 lbs)
Size	47 x 35,7 x 17,6 cm 18.50 x 14.06 x 6.93 inch
Water and dust protection (suitcase)	Totally protected against dust and protected against the effect of immersion between 15 cm and 1 m (IP 67).
Set-up time	Less than 5 minutes
Video storage capacity	Up to 50 hours
Video formats	PAL / NTSC
Screen Capture Device	
- Resolution	1220 x 1024
- Frame rate	10 fps

As an addition to the field lab Noldus offers you a home pack. This pack enables you to code your recordings back in your office or lab while your colleagues use the field lab for recording.

#### PACK YOUR SUITCASE

A Noldus portable lab is a modular platform. Do you want to use additional equipment like a heart rate monitor, a spectacles camera, or a mobile device camera? We offer many devices you can add to the lab. You can also add your own tools. The case contains room for extra components.



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E-mail: info@noldus.com

#### COMPONENTS

##### Field Lab

##### Suitcase with

- computer
- The Observer XT + uLog Pro
- screen capture module
- digital screen capture device
- digital video camera
- mini tripod
- participant microphone
- moderator microphone
- cables and power supply

##### Home Pack (optional)

- 1 extra license of The Observer XT
- event logging keyboard



#### EXTENSIVE ANALYSIS

To get the most out of your research data use The Observer XT, for calculating usability metrics, visualizing processes, and statistical analysis. Our software allows you to export interesting highlight clips of video and data for presentational purposes.

#### FULL SUPPORT

All our labs come with installation and support. An in-depth training and a service contract is optional. If you experience any challenges, our support department is there to help. In short, we help you get the best out of your behavioral research!

#### INTERESTED?

Feel free to contact us or one of our local representatives for more references, client lists, or more detailed information about a Noldus portable usability lab.

See our catalog for other products and solutions concerning Human Behavior Research.

We are also represented by a worldwide network of distributors and regional offices. Please visit:  
[www.noldus.com/contact-us](http://www.noldus.com/contact-us)  
for the nearest regional office or distributor

Due to our policy of continuous product improvement, information in this document is subject to change without notice. The Observer is a registered trademark of Noldus Information Technology bv.

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**WWW.NOLDUS.COM**



## INFORMATION SYNCHRONIZATION

GazeTracker™ synchronizes information from four different sources:

- Operating System
- Questionnaire
- Eye-tracker
- External Video Feed

This information is stored in a database.

### OPERATING SYSTEM

GazeTracker™ records and time stamps mouse movements, mouse clicks, and keystrokes. GazeTracker™ compensates for changing content on the screen. As users scroll web pages or videos change what is shown to the test subjects, GazeTracker™ detects the changes and "corrects" the collected data to associate where someone is looking to what is actually shown on the screen.

Additionally, GazeTracker™ tracks what web pages are displayed and what hyperlinks are clicked. GazeTracker™ can automatically parse HTML files and generate LookZones for images, hyperlinks, or text.

Lastly, GazeTracker™'s Software Analysis stores all of this data for the particular applications the subjects interact with. For example, GazeTracker™ "knows" when a test subject is interacting with Microsoft Word™ and is adjusting the size of the Word window.

### QUESTIONNAIRE

Questionnaires allow researchers to define questions and allowable answers for test subjects. These questionnaires can appear before and after data recording takes place.

### EYE-TRACKER

GazeTracker™ stores all gaze positions and pupil dilation measurements that an eye-tracker reports. This data is time stamped and associated with the particular application the test subjects interact with.

### EXTERNAL VIDEO FEED

GazeTracker can create AVI videos of external video feeds and synchronize the videos created to the time stamps of the collected eye-tracking and operating system data.

### DATABASE

A database is used to tie all of this information together. The database stores the test setup (such as what images are viewed), test subject information, operating system information, questionnaire data, and eye-tracking data. The database allows information retrieval based on particular subject attributes.

## COMMON QUESTIONS:

### ■ How is GazeTracker™ useful in interface design?

Through GazeTracker™, usability experts can understand how well different aspects of a user interface convey its meaning. For example, if a test subject is given a particular task to perform and successful completion of this task requires the subject to click on a particular hyperlink, the time between when the hyperlink is first observed and when it is clicked can indicate how well the hyperlink conveys its meaning. If this time-span is long but the time for the first observation of the hyperlink is small, the hyperlink may need to be reworded because it is confusing. If the time-span is short but the time to click the hyperlink is long, then the hyperlink is clearly understood but may need to be repositioned. This level of understanding can be obtained only by coupling an eye-tracker with the synchronization and analytical capabilities of the GazeTracker™ software. This is but one of the many benefits obtained by employing GazeTracker™ in user interface design.

### ■ Will GazeTracker™ track web pages or online stores with frames?

Yes, GazeTracker will scroll compensate for all frames that have scrollable content.

### ■ Can GazeTracker™ analyze data for more than one subject at a time?

Yes, GazeTracker™ can generate customizable reports and graphs that can condense data from many subjects.

### ■ Do you offer software updates?

With our service plans, you will automatically receive four updates per year.

### ■ Are there different versions of GazeTracker™?

Yes, there are three:

**Basic:** includes Still Image Analysis

**Full:** includes Still Image Analysis, Software Analysis, Video Analysis

**Premium** (with SceneSync™ technology): includes all the features of our Full version plus the ability to synchronize any external video feed, or scene-camera data, with the eye-tracking data

### ■ What does SceneSync™ add?

It adds the capability to synchronize eye-tracking data with an external "scene" camera. This is useful for head mounted eye-tracking systems or for studying applications that have a significant amount of dynamic content, such as TV programs, driving or flight simulators, or computer games.

### SYSTEM REQUIREMENTS:

- Pentium level computer
- Windows™ 95, 98, ME, NT 4.0, 2000, or XP
- An eye-tracking system

# GAZETRACKER™

## A TOOL FOR STUDYING EYE MOVEMENT

In nearly all eye-tracking studies, eye-tracking data is but one component of what needs to be analyzed. Eye Response Technologies provides a software package called GazeTracker™ that consolidates all of the information researchers need to conduct their studies into one piece of software. GazeTracker™ serves three functions:

- Stimulus Presentation / Recording, including:
  - Still Image Analysis
  - Software Analysis (with Web Content Analysis)
  - Video Analysis (with SceneSync™ technology)
- Information Synchronization
- Data Analysis and Visualization

### GAZETRACKER™ ADVANTAGES:

- Allows analysis of dynamic content: data is automatically "corrected" for changing content due to scrolling, videos, or animations.
- Synchronizes additional information to the eye-tracking data: mouse movements, mouse clicks, keystrokes, and pupil dilation are but some of the data GazeTracker records.
- Greatly reduces the time it takes to analyze eye-tracking data: information synchronization with dynamic content compensation and Multiple Subject Analysis saves hours of painstaking analysis by hand.
- Provides powerful analytical and visualization tools: users may define regions of interest of any size or shape into either text files or Microsoft Excel™ for their own statistical analyses.
- Flexible: researchers have tremendous flexibility in defining their study.
- No dedicated computer: GazeTracker™ passively operates on the same computer test subjects use.

Demo disks are available ■ Contact us for customization and training options



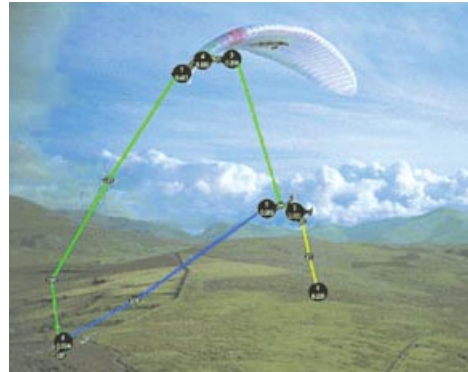
Incredible, easy-to-use software with awesome technical support.  
We could not have completed our study without this software.  
—Greg Alvarado, Michigan State University



www.eyerresponse.com

## STILL IMAGE ANALYSIS

GazeTracker™'s Still Image Analysis displays a sequence of static images on a computer. The next image appears after a predefined length of time or when a specific keystroke or mouse click is made. GazeTracker™ gathers information, such as eye position and pupil dilation, as recording takes place.



## LOOKZONES

LookZones are easily definable regions of interest that researchers can specify in any of GazeTracker™'s analysis modes (still images, videos, or software applications).

LookZones generate statistics based upon actions occurring inside of the zone. Some of these statistics include number of times the region was observed, number of mouse clicks in the region, and total time spent looking in the region. LookZones may be any size or shape. An unlimited number of them may be set up in any analysis mode. LookZones can also be dynamic, automatically changing size and position for changing screen content in response to scrolling, videos, or animation.



## DATA ANALYSIS

GazeTracker™ features both data analysis and visualization tools that can be used to study the data collected in any analysis mode. Some of GazeTracker™'s tools include:

### DATA ANALYSIS

- **LookZone:** understand the order in which people process the stimuli and the duration for which people observe different areas of the stimuli with user-definable regions of interest.
- **Fixation:** analyze metrics based on where the user has fixated, such as average fixation time or number of fixations.
- **Data Export:** export a variety of data and metrics, ranging from raw data to fixations, either directly into Excel™ or to a comma-delimited file for easy import into statistical software of your choice.
- **Multiple Subject Analysis:** perform analyses across many subjects at one time, greatly reducing the effort needed to analyze eye-tracking data.

### DATA VISUALIZATION

- **GazeTrail:** visually show all collected data and fixations by overlaying this data on a stimulus in an easily customizable manner.
- **Playback:** performing a real-time playback of all captured eye-gaze, mouse, and keyboard data with a red X showing where the test subject was looking. Playback may occur on the screen and be written to an AVI file.
- **Graphing:** GazeTracker™ has a variety of methods for researchers to graph and to view their data including automated graphs in Excel™, pupil graphs, and our own 3D analysis of captured gaze data.

## VIDEO ANALYSIS



GazeTracker™'s Video Analysis displays a sequence of videos. The next video begins after the previous one finishes a predefined length of time, or after a specific keystroke or mouse click. GazeTracker™ records its data as each video is played, synchronizing the time stamps of the collected data to the individual frames of the video.

# GAZETRACKER™

A TOOL FOR STUDYING EYE MOVEMENT



## SCENESYNC™

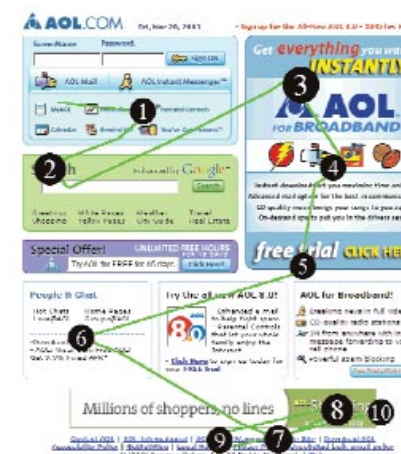
SceneSync™ technology allows GazeTracker™ to synchronize its collected data to outside video feeds. GazeTracker™ creates an AVI file of the video feed and ensures that the timing of this AVI file matches the time stamps of GazeTracker™'s other collected data. This allows GazeTracker™ to be used with head-mounted eye-trackers, simulators, and televisions. Researchers can also have other cameras collecting data on their subjects during their test sessions.

## SOFTWARE ANALYSIS

GazeTracker™'s Application Analysis feature allows GazeTracker™ to store data as users react to software interfaces. GazeTracker™ tracks a person's gaze position, pupil dilation, and all mouse clicks, mouse movements, and keystrokes as a person interacts with each application running on a Windows™ desktop.

## WEB CONTENT ANALYSIS

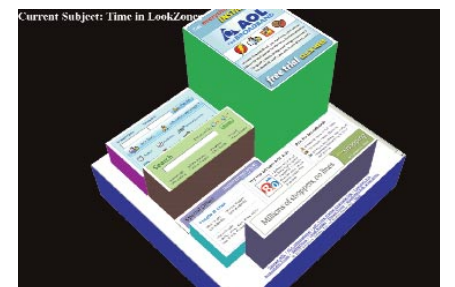
GazeTracker™'s webpage analysis mode includes all of the features of Application Analysis plus some capabilities unique to analyzing web pages. GazeTracker™'s ability to analyze dynamic content allows the software to seamlessly provide the information that researchers need to effectively analyze web sites. GazeTracker™ parses the HTML and knows the layout of the page, automatically establishing LookZones on images and hyperlinks. The pages visited by the test subjects are also automatically stored.



## GRAPHING

GazeTracker™'s primary methods of graphing data include:

- Pupil Dilation Graphs
- Automated Excel™ Graphs
- 3D Graphing
- LookZone Order Graph



### PUPIL DILATION GRAPHS

Pupil graphs show the captured fluctuations in pupil dilation over time.

### AUTOMATED EXCEL™ GRAPHS

GazeTracker™ has the ability to automatically generate a variety of graphs in Microsoft Excel™.

### 3D GRAPHING

3D graphing offers a topographical map of the eye-tracking data, or it can combine a bar chart with a 3D view of the stimulus. A topographical map creates mountains and valleys directly on the stimulus based on where subjects looked. 3D bar graphing raises portions of the stimulus where LookZones are located. The height of the LookZones indicates the total time the zone was observed. Pictured above is a 3D bar analysis of a website.

### LOOKZONE ORDER GRAPH

A LookZone Order graph depicts a timeline showing the order and duration in which a test subject observed each region of interest.

## D6 Optics

## Desktop Eye Tracking Solutions

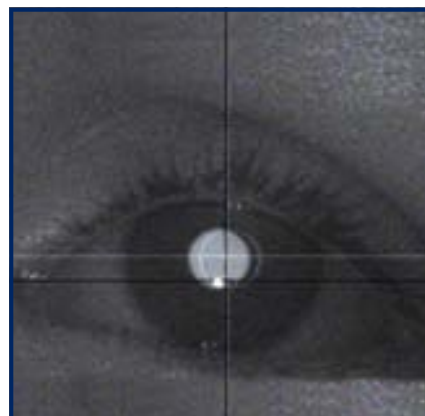


The D6 Optics is ASL's newest and most robust desktop remote eye tracking solution. It is designed to quickly and accurately track the gaze position on all participants, from infant to senior citizens. The stimulus can be presented on a single stationary surface, such as a computer or video monitor, or can be stationary real world objects. The system allows the participant approximately one square foot of head movement which eliminates the need for head restraint.

### The advantages of the D6 desktop remote solution are many:

- The only head free solution that uses bright pupil technology, giving superior capture and contrast.
- Quick and accurate head movement compensation.
- Constant visual feedback throughout entire tracking sessions.
- Automated procedures with manual overrides for challenging participants.
- Auto-calibration can be performed without operator intervention.

- Versatility in stimulus display devices— monitor, TV, projected image, even real world objects.
- Software Development Kit (SDK), which provides access to eye tracker controller port, serial out port and data files recorded by ASL interface program.



### Data Output

The D6 Optics is designed to measure a participant's eye line of gaze with respect to a single stationary surface in the environment. You can also configure the system to track participants viewing real objects. ASL solutions provide you with constant feedback on the eye tracking system and your participant's eye gaze. The gaze point is displayed as a cursor or cross hairs superimposed on the image being viewed. A videotape or digital recording of this image can be created as a permanent record.

Recorded data include time, x and y eye position coordinates, and pupil diameter. External data event markers can be recorded along with eye tracker data. Eye position coordinates correlate to specific areas on the surface being viewed. The D6 Optics includes a video head tracker, allowing head position to be recorded as well. The video head tracker does not require any equipment to be placed on the participant.

The D6 EYE-TRAC®6 operating software provides the system operator with the ability to enter calibration and participant data and specify the operating parameters of the D6 Optics. The provided software also converts data to text format for input to spreadsheets or other third party applications.

Real-time digital data is available directly from the EYE-TRAC®6 control unit through a RS232 serial port.



## D6 Optics



### Optional Equipment

The D6 Optics is part of the ASL EYE-TRAC®6 Series. The ASL EYE-TRAC®6 Series offers the most eye tracking configuration options. This provides the greatest flexibility for your research requirements today and tomorrow.

- The EYE-TRAC®6 Control unit will work with all of the ASL EYE-TRAC®6 Optics options.
- New optics can be added at any time.
- System components and software can be shared among collaborators for greater allocation of time, funding, and resources.



\*All eye camera optics are configurable with control unit

D6 optics are portable and can be configured with a laptop as well as a PC.

### Training & Technical Support

ASL is committed to assisting researchers before, during and after the eye tracking data acquisition.

Unlimited technical support and free access to updates on the interface software are available at all times. Multiple licenses of the interface software are available at no additional charge.

We offer free scheduled training at our Bedford, MA (Boston) location for the life of the equipment. On site training is also available. Please check out our website for upcoming training sessions.

### ASL Results

The ASL Results application allows the researcher to reduce data to a list of fixations. The parameters used to compute fixations can be adjusted to meet the researcher's definitions and interpretations of events. Other important features include the ability to plot scan path patterns, define areas of interest on the stimulus display as well as compute many statistical parameters. For more detailed information, please feel free to request our ASL Results brochure.

## Data Analysis Tools

### ASL Results

A comprehensive eye tracking data analysis package is available with each EYE-TRAC®6 series. ASL Results quickly reduces raw data to user definable fixations and matches those fixations with Areas of Interest (AOI). Includes several statistical parameters as well as creative meaningful visualization of data including heatmaps.

### Gazetracker

Gazetracker 8.0's user interface includes:

- Time line view– Superimposes a variety of information, including Look Zones, website entrance and exit, input events and pupil data onto a single graph
- Spotlight– The inverse of a heat map bringing increased clarity where users focus the most attention

### Interact

INTERACT 8-ASL Edition streamlines frame by frame video analysis providing meaningful eye tracking data. This software solution is consistent with ASL's commitment to expand and enhance the use of eye tracking.

### Technical Specs

Sampling rate:	60Hz
Measurement Method:	Pupil-cornea reflection
Accuracy:	0.5° Visual Angle
Resolution:	0.25° Visual Angle
Head Range:	17" x 8" x 14" 43.2cm x 20.3cm x 35.6cm
Distance Range:	20" to 40" 50.8 to 101.6cm
Dimensions:	4.5" / 9.75" / 10.25" H/W/D
Visual Range:	50° horizontal 40° vertical
Real Time	
Data Outputs:	X and Y gaze coordinates Horizontal and vertical pupil diameter Two analog outputs One video output