

Eye Tracking at the Bentley Design and Usability Center



The Bentley Design and Usability Center (DUC), in partnership with SMI Vision, offers a full range of eye tracking services. Our eye tracking studies provide a detailed account of **where people looked, in what order and for how long**. This research can help explain human behavior in order to inform design and marketing efforts.

What Is Eye Tracking?

Eye tracking technology from SMI Vision uses reflected infrared light to monitor subtle eye movements. Tracking **fixations** (areas of focused attention) and **saccades** (movements between these areas) provides precise information about people's visual attention patterns. SMI software translates data into a variety of compelling visualizations that describe important findings in an accessible, understandable format. As pictured above, eye tracking systems are unobtrusive, mounted directly beneath the user's computer monitor or worn in the field.

Eye Tracking Allows Us To

1. **Learn** what areas of the screen attract users' attention relative to other areas.
2. **Discover** how and what people read within your designs.
3. **Explore** the flow of attention (the order in which people look at various elements).
4. **Compare** different designs and creative options.

Eye Tracking and Usability

In conjunction with established usability testing protocols, eye tracking provides deep insight into the effectiveness of:

- Ads
- Promotions
- Navigation
- Web information hierarchy
- Visual design treatments
- Content
- Icons

What We Can Test with Eye Tracking Equipment

- Static images
- Video and rich media
- Live web sites
- Print media
- Products and shelf displays (portable eye tracking)



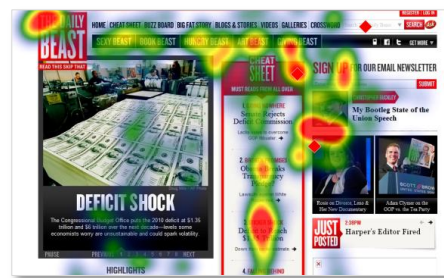
What Bentley Eye Tracking Services Can Give You

Scan paths allow researchers to analyze the flow of attention throughout a design. This output shows people's fixations and the order in which they occurred. Sequential videos can show scan path progression in real time.



This user spent time reading text content, but missed the correlated material on the right hand side of the page.

Heat maps display where users concentrate attention within a given design. This aggregate information is great for quickly revealing which areas people focused on, as well as areas that were missed.



Users focused on navigation items and the center column as they scanned for articles on the Haiti earthquake.

Numerical data communicate statistical details for specific areas of the tested design. You can then compare the impact of these visual areas. Such data include:

- Time to fixation
- Average fixation duration
- Dwell time
- Sequence of area visitation
- Revisits



Customizable Areas of Interest (AOI) provide details on specific sections of the design

The Bentley Design and Usability Center

The DUC is a human factors research, design, and evaluation consultancy. Our full-time staff of usability professionals provides an extensive range of services for clients worldwide.

We improve the usability of products and services by identifying actionable, high-value aspects of the user experience that deliver return on investment.

Contact Us

Do you need world-class user experience research? Are you interested in the benefits of eye tracking? Get in touch with the Bentley Design and Usability Center to discuss options.

Director: Bill Albert
walbert@bentley.edu
781-891-2500
www.bentley.edu/usability

Eye Tracking and the Bottom Line

- Increase brand awareness
- Increase visual attention and clicks for ads, promotions, and other key elements
- Increase conversions and sales through optimal design and layout
- Increase product loyalty through improved usability and satisfaction
- Maximize adoption and use of new functionality through increased awareness

