

# MangoldVision



Eye tracking  
made easy

## Use MangoldVision for Your Eye Tracking Projects

MangoldVision lets you **design**, **carry out** and **evaluate** structured eye tracking tests with different stimuli. Randomization and a **dynamic**, **user-interactive** testing process are also possible.

### Three Steps to Professional Results

1

#### Design

Easily design your project with MangoldVision through **drag-and-drop**.

Use **images, videos, web pages and text as stimuli, or capture dynamic screen content** during test sessions.

Use **interactive questionnaires** to collect **key variables** and **sociodemographic data** for each subject during testing.

2

#### Record

MangoldVision executes your project **automatically** and guides your participants through the test.

In addition to **recording gaze data** and depending on your requirements, MangoldVision can also record the **user's face, verbalizations and other actions**.

3

#### Analyze

MangoldVision **visualizes your data professionally** with just a few clicks.

Define **areas of interest** and let MangoldVision display **statistical evaluations** based on these areas.

Use **sociodemographic data** and other variables as **filters** to form different data sets.

**Easily group multiple projects together** to get aggregated evaluations.

**Export** all raw data, calculations, and visualizations for use in other **scientific reporting or presentation programs**.



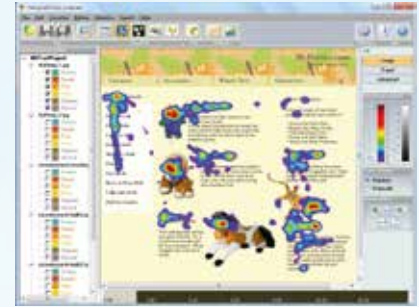
### Gaze Plotting

Gives excellent insight into the viewing behavior and gaze patterns of your participants. See how they explore your visuals.



### Focus Map

A real eye-opener for any designer, researcher or developer. See what your subjects really saw and what they did not look at.



### Heat Map

Shows at a glance the "high energy" areas of a stimulus on which your participants were focusing.



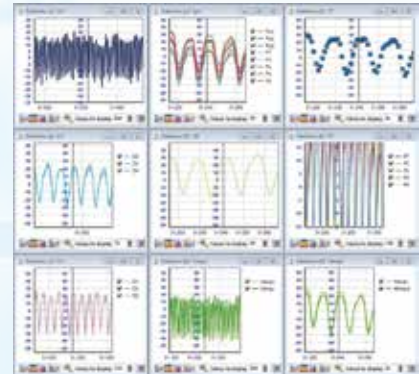
### Areas of Interest

Define parts of an image for which you want to get statistical results. Mangold-Vision then calculates various key eye movement indicators based on these areas.



### AOI Gaze Pattern

The Gaze Pattern Chart gives a very good impression of what specific areas of interest (AOI) the participants have seen in what order.



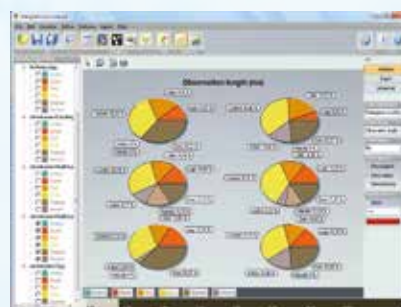
### Physiological Measurements

Relate physiological measurements to recorded gaze data to get more insight into the user experience of your participants with the optional DataView module.



### Statistical Results

Calculate statistical results from gaze data at the push of a button, making it easy for you to interpret data, prepare reports and compare studies.



### Export and Visualization

MangoldVision offers data export possibilities and amazing charting options.

**MangoldVision**  
See through your  
participants' eyes



# MangoldVision

## The Outstanding Advantages of MangoldVision

### Multi-Tracker and Multi-Monitor Support

Use multiple computer monitors and multiple eye trackers during a single testing session.

### Create Arbitrary Stimulus Sequences

Using images, text, videos, web pages, questionnaires and captured screenshots.

### Static, Dynamic and Audio-Assisted Calibration

Recalibration during testing also available.

### Multidimensional Stimulus Randomization

### Dynamic Presentation Control

Through actions based on user input and gaze behavior.

### Define Sociodemographic Data

In the form of subject attributes.

### Comprehensive Data Recording

Left and right eye coordinates  
Left and right eye pupil diameters  
Gaze point calculated from both sets of eye coordinates  
Exact timestamp for each sample  
Mouse coordinates and keystrokes  
Record participants via webcam.  
Record screen content via screencast.

### Easy Data Management

Easily copy entire projects between computers.  
Easily merge different projects.  
Filter data based on subject attributes.

### Extensive AOI Analysis

Automatic AOI generation  
AOI editor with arbitrary polygons for static images  
AOI editor with arbitrary polygons for moving and morphing AOIs on videos  
AOI statistical analysis  
AOI gaze pattern visualization

### Meaningful Results Presentation

Static and dynamic heat maps  
Static and dynamic focus maps  
Static and dynamic gaze plot visualization

### Easy Data Import and Export

Import data from other eye tracking systems.  
Export all recorded raw gaze data.  
Export all visualizations.  
Integrate physiological measurements with DataView.

### Remote Observation

Network transmission of eye tracking sessions for remote observation

### Quality Assurance

Track status feedback to the subject and/or test leader.  
Adjustable gaze data aggregation for fixation calculations  
Post-hoc gaze data recalibration option  
Adjustable data smoothing

# Eye Tracking

## Hardware



### VT3-mini Eye Tracker

#### Big Technology in a Small Package

For use with  
**MangoldVision & LogSquare®**

**Fast**  
Large headbox and rapid recovery  
through on-board image processing

**Powerful**  
Integrated computer for  
high-speed data processing



**Reliable**  
Gaze data with instant  
on-board time stamping

**Automatic**  
Binocular and  
monocular tracking

**Robust**  
Optimized for mobile  
and stationary applications



Mobile



Stationary



**Model:** VT3 Mini V2.0

**Sampling rate:** 40/60/120/200 Hz, depending on model

**Latency:** instant high-speed on-chip image processing

**Tracking method:** binocular and monocular/dark pupil

**Accuracy:** approx. 0.5°/drift < 0.3°, depending on setup

**Working distance:** approx. 50-70 cm (19.7 – 27.6 in)

**Screen size:** max. 22" (56 cm) Custom configurations for larger screens available.

**Headbox:** (W x H x D) 40/60 Hz: 31.5 x 22.5 x 20 cm (12.4 x 8.9 x 7.9 in);

120 Hz: 20 x 5 x 20 cm (7.9 x 1.9 x 7.9 in); 200 Hz: 9 x 4 x 20 cm (3.5 x 1.5 x 7.9 in)

**Weight:** approx. 210 g (0.5 lbs)

**Dimensions:** (W x H x D) approx. 25 x 2.6 x 3.2 cm (10 x 1 x 1.3 in)

**USB** 2.0 or 3.0 **Power** 3-4 W **Certificates:** CE und FCC



# Mangold

## Your Partner for Research

### Benefit from Over 28 Years of Experience

Thousands of satisfied users in over 45 countries from a wide range of research areas rely on solutions from Mangold International.

Competence, reliability and our award-winning customer service make Mangold International the first choice for installing your custom research lab.



### We Support You Right from the Start



*"The INTERACT® software is flexible, user friendly and rich in its capabilities. But, more importantly, the support staff at Mangold is unparalleled."*

Dr. Catherine Tamis-LeMonda,  
New York University  
in the United States

*"The MangoldVision eye tracking system is portable and easy to use. The software suite is friendly and offers powerful tools to capture and analyze data."*

Dr. Paulo Correia, University  
of Sao Paulo in Brazil

*"The INTERACT® coding software from Mangold proved to be extremely useful and efficient for detailed videotape analysis of individual differences in the great apes."*

Dr. Jana Uher, Free University of Berlin in Germany

*"We have put the lab equipment to use. We are really fascinated."*

Gwatirera Javangwe,  
University of Zimbabwe

*"The use of INTERACT® was found to be effective and time-saving, and appears to offer a significant advantage to the analyst and hence the efficiency of the research process."*

Dr. Zafer Bilda, consultant  
and research scientist in  
Australia

*"To our psychology/neuroscience laboratory with various research interests, INTERACT® is the best choice for us to solve the problem of multi-channel synchronization and explore the complicated relationships between psychological and physiological responses in topics of research such as user experience (UX), applied cognition, and sports science."*

Prof. Hung-Wei Lee, Hsuan  
Chuang University in Taiwan

### Discover more...

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