Facility Use Guide

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1. General Lab Rules

Please read and follow the general lab rules and then any technical sections that are needed for your study.

1. In order to use the lab, you’ll need first to reserve it – please contact the lab RA to make the reservation. When reserving the lab please specify: your name(s) with affiliations and contact info, supervising professor’s name (if applicable), the reasons for the lab use, hardware and software you plan to use, which lab room(s) you plan to use (i.e. observation or testing or both, and why).

2. No food and drink in the lab; you may bring a closed water bottle.

3. You should be familiar with the lab’s hardware/software before using it.

   a. In particular, before you can use eye-tracker, you need to be trained in using it.

4. Please do not remove any lab handouts nor any equipment from the lab.

5. It is preferred that you do not change any settings on the lab computers. If you need to change any settings on the lab computers, first you need to be sure that you will be able to change them back. Then, after finishing your work, please change the settings back to their original state. (This applies in particular to display settings.)

6. You are not allowed to install any software on the lab computers. If additional software is needed please ask the lab staff about installation.

7. In particular, before you can use the eye-tracker, you need to be trained in using it.

8. After you complete your data collection, you should take your data with you. We do not guarantee that the data is going to be kept on the lab computers.

9. When you are done, log out, turn the monitor(s) off, turn the eye-tracker off (if applicable), but do **not** shut down the main computer in the testing room.
2. Equipment

a. Tobii TX-300 eye-tracker

The TX300 Eye Tracker is an integrated eye tracker with a 23” TFT monitor. The eye tracker is connected via a USB LAN adapter.

For detailed information of Tobii TX300:
b. EyeGuide Mobile Tracker from Grinbath

The Mobile Tracker accommodates testing on young children through adults. Its headset design allows for researchers to communicate with users during testing, and since the Mobile Tracker is a headset, users with glasses can wear it. In addition, it relies on a hot mirror to calibrate and track the user’s eye movements, so no camera obstructs the user’s regular vision.

Mobile tracker headset

For more information, visit here http://eye.guide/hardware/#techspecs
2. Access to Lab computers

Log on
- Log on with iSchool User account or UT EID on Lab computers. It doesn’t require a password.

Turn the monitor on/off
- There is a button on the left side of the Tobii eye-tracker monitor to turn it on and off
- When you finish the use of the computer, please log out (but do not shut down the PC in the testing room) and turn the monitor(s) off

Connect to the eye tracker
- There is a button on the back of the eye tracker monitor to turn it on; if it’s on, blue light appears.
- Turn it off when you’re done
3. Guidance to Use Software

a. TechSmith Morae

As an usability software tools, Morae is used to record a user's interactions with your application, site, or product, and allows multiple people to remotely observe the study, collaborate, and take notes—all in real-time. Morae allows investigators to record, observe, and analyze usability studies, focus groups, field research, and product testing. Morae consists of three kinds of modules: recorder, observer, and manager.

Morae Recorder

The Morae Recorder captures audio, video, on-screen activity, and keyboard/mouse input during a research session. Depending on the research methods investigators are using, they might record camera video only (no screen recording).

Morae Observer

The Morae Observer enables research team members to watch the participant's experience, make notes, and flag tasks in real time. Observer connects to the computer running Recorder via network (LAN/WAN/VPN). Multiple Observers can be connected to a single Recorder.

Morae Manager

Use the Morae Manager to view and analyze Morae recordings, automatically calculate metrics, generate graphs, and create highlight videos to share with stakeholders.

Morae tutorial for usability test:
- [https://www.techsmith.com/tutorial-morae.html](https://www.techsmith.com/tutorial-morae.html)
Interface examples

Morae Recorder

Morae Observer

Morae Manager
b. iMotions Attention Tool

Check Points
- Don’t necessarily need the camera on, depending on the purpose of the test
- Make sure that participants should not click “escape” – it will interrupt and not save any data
- Check out “Data quality”, if it’s suspiciously low (like 50-60%)
- Closing the browser will not erase the data
- Shift + F1 = end experiment; only use it when you’re stuck and software isn’t responding

How to Use The Tool

1. Setup A Study

![Image of iMotions interface]

a. Click the left bottom “+” button to add a new study
b. Name the study and click “Add”
c. Then, click the top right “+” button to add stimuli
d. In the following dialog, choose “Add a screen recording,” then click “OK”

2. Setup Camera (optional)

a. Go to “Preferences > Global Settings” at the top left
b. Click “Enable VideoCam Capture” under Video tab menu
c. Enable “Include Audio” if you wish to record sound during the test
   d. Set other properties as needed
3. Setup Data Collection

a. Click the right bottom “+” button to add a respondent
b. Type in the respondent’s information (Name, Gender, Age, and Group), and click “Add”
c. Before running a session with a respondent, make sure you have positioned the respondent correctly in front of the eye tracker. The Eye Finder will help you position the respondent optimally. Follow the steps described below.
4. Begin Data Collection

- First, give the respondent the instructions and have them test out computer before calibration
- Select the study, and then select the respondent being tested
- Press the “Record” button to start the Gaze Calibration (see below)

**Gaze Calibration: The default is a nine point calibration (see below). It takes about 20 seconds to go through the sequence. If the result is excellent, then you can begin the test, otherwise, try to calibrate once more. Calibration parameters can be adjusted in Global Settings.**
d. Monitor the test in the main iMotion interface (live view)
e. If need to exit recording, press “Shift + F8”

5. Analyze Collected Data and Export

a. Click the left bottom “+” button, and then select “Analysis” and name it

b. Select the newly created analysis, the stimuli, and the analysis results preferred
c. To export the analysis result into video, right click on the study, and select “Export > …”
c. Tobii SDK

Tobii SDK, as software development kit, provides a comprehensive set of tools for the development of eye tracking-enabled applications on multiple platforms using a wide range of programming languages.

Pro Analytics SDK is the Tobii SDK of choice for developing eye tracking analysis applications, i.e. applications that store gaze data to analyze user behavior. Other SDKs are recommended for gaze-control applications to steer computers.

Download is free of charge.

More information about Tobii SDK can be found and downloaded here: http://www.tobiipro.com/product-listing/tobii-pro-analytics-sdk/
d. EyeGuide® Mobile Tracker

EyeGuide® Mobile Tracker consists of two apps: Analyze and Visualize. Please note that after installing the software, each app provides instructions to set up the system, run tests, and analyze data under the menu “Help>Manual”.

Click here to download the software

Download manuals:

Analyze is software used for analysis of data collected with Grinbath eye-tracker. Running on both Windows and Mac, Analyze provides researchers with drag-and-drop parallax compensation, a variety of out-of-the-box visualizations, as well as the ability to effortlessly export images, video, and raw data.

Screenshot of Analyze

Visualize is an app that runs on Windows, Mac, or iOS (iPad only) to help cover just about any test scenario. Visualize was designed to help users easily setup new projects, add recordings, modify project settings, and then replay recordings to check for quality. Whether investigators
are recording in the field, in a hallway, an office space, or recording user computer's screen, Visualize helps them capture the video and data, then quickly import into Analyze.

Screenshot of Visualize
Test

Created: Mon Nov 17 09:28:36 2014

Description

Recordings

Recording 1 (00:00:38.648)

My Recording (00:01:01,030)