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Neo Tandem Technologies

User Manual
V0.1

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DOCUMENT REVISIONS

Version: Version 0.0:Initial creation of document
Version: Version 0.1:Added basic content relating to Introduction,Processes and
Appendix.

1   Introduction

1.1   Scope and Purpose

The purpose of this eye-tracking software is to extend the capabilities of OGAMA.OGAMA is an open-source eye-tracking software that was created to track the movement of the eye on slideshows study designs.The extension of this media to others would greatly benefit most parties as it will be able to be used to track gaze movements not only on slideshows but also on 3D models and Video.

1.2   Process Overview

There are a few core process that have been implemented and that will allow for more effective eye-tracking across mediums.The process are as follows:

- Eye tracking on 3D models and videos.

- Creation of heat maps from eye-tracking.

- Saving heat map on specific media.

- Creating Statistics on information gathered.

The following process listed are the core of this program as they carry out the basic functionality of this software.Below an in depth description is given about each process.

2   Processes

2.1   Eye tracking on 3D models and videos

The eye tracking is done with the eye-tribe camera.The camera tracks gaze and eye movements of the user looking at the medium.The tracking of the eye on 3D model and video is not the same as if it were on a static medium such as a image or a sideshow.The user will select the 3D model or video that they eye tracking must be performed on.The user will then begin the eye-tracking and then they application will record the information.

2.2   Creation of heat maps from eye-tracking

The creation of the heat map will use the data collected from the eye tracking and then generate a heat map based on the media type.This can easily be done by clicking the "generate heat map" or it can be set to automatically do so in the settings.

2.2.1 Converting raw information into heat map compatible information

The information collected from the eye tracker will need to be converted to the correct format so that the OGAMA module can then use to create the heat map.

2.2.2 Generation of heat map

The generation of the heat map is handled by the OGAMA module.The module will take in the converted information and then create a heat map.

2.3 Saving heat map on specific media

The heat map that is created will be able to be applied to the media that it was created for.This is done after the heat map is created.This feature will allow the user to save a copy of the heat map over the media of choice.The user needs to select the media object and click on the save with heat map overlay to save the item.

2.3.1 Duplicating the media

In order to apply the overlay the media needs to be duplicated as to not overwrite the file used in the eye tracking process.Thus the duplication of the media has to occur.

2.3.2 Applying heat map to media and Saving

Once the duplication of the media is complete the over lay needs to be applied to it and needs to be viewable when the media is viewed.The user will be prompted to save the newly created media object into the directory of their choosing.

2.4 Creating Statistics on information gathered

The user at any time can generate stats on the media that was tracked.This action will produce a document that can be saved or printed and will allow the user to view stats suched as most view sections and also average time spent looking at sections of the media.

3 Appendices

3.1 OGAMA

OGAMA(OpenGazeAndMouseAnalyzer) is a free software that is used to view,capture and analyse interactive stimuli.The OGAMA.Currently OGAMA only allows for the tracking and analysis on slideshow based stimuli.OGAMA essentially uses the information gathered by the eye tracking camera to create analytics and show the user where on

the slideshow the users viewed the most.OGAMA is also capable of tracking mouse movements.More information regarding OGAMA can be found at http://www.ogama.net.

3.2   EyeTribe

The EyeTribe is a low cost development kit this is used with the OGAMA project to track the movement of the eye.The Eyetribe eye tracker includes a SDK(Software Development Kit) that allows the integration of eye tracking on multiple applications on multiple platforms.More information on the EyeTribe and its various components can be found at http://www.theeyetribe.com.

4   Index

This is where the index will be located. Here the user will be able to look for specific words and see where they are located