Introduction and "Readme" Guide to Stimulus Code Package

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Introduction

- This software package contains code from the Culver lab for presenting visual stimuli to human subjects during diffuse optical tomography (DOT) imaging sessions. The package also provides guidance on how to configure a computer for running this software.

License

- The license for this software can be found in the accompanying files License.txt and License.pdf.

Recommended starting point for system setup

- For detailed guidance on how to set up a stimulus presentation computer like the one with Ubuntu Linux 16.04 LTS in the Culver lab, please see System_Configuration_Procedure.pdf. This document discusses recommended equipment, operating system configuration, Psychtoolbox setup, installation of the stimulus presentation code, and what to do with the files in the "startup_m_files_MATLAB" folder.

Stimulus presentation code

- The stimulus presentation code and stimuli are located in the "stim" folder. This is the folder whose contents should be copied to /usr/share/stim during the setup process in System_Configuration_Procedure.pdf.
- After you have configured the system and installed the stimulus presentation code, I recommend that you examine the scripts "Example_Stim_Presentation_Commands.m" and "Typical_Retinotopy_Scan_Protocol.m" for examples of stimulus presentation commands to run during imaging sessions.
- "Example_Stim_Presentation_Commands.m" also describes the overall structure of the stimulus presentation protocols and stim-synch pulses.

Guide for scanner operators during imaging sessions

- Stim_Computer_Operating_Instructions_for_Scans.pdf describes a procedure that someone can follow for operating and troubleshooting the stimulus computer during an imaging session.
- We recommend taping these instructions to the stimulus computer to facilitate scans.
- These instructions assume that the computer has been configured according to the complete process in System_Configuration_Procedure.pdf.