Graphical user interface

Description automatically generatedQuickstart Guide

1. Open MATLAB and type “iosgui” to open the image processing application
2. Edit the fields in “Image Acquisition Settings” to match the settings used for acquiring IOSI images
3. Click “Import Imaging Files” and select a group of images (or an image stack) for processing
4. Click “Process Files” to start image processing and generate a scaled ΔR/R image
5. Click “Import Vasculature Image” to import an image of cortical vasculature taken contemporaneously with the IOSI images
6. \*Optional\* Click “Add Mask” and re-size the displayed ellipse to mask pixels outside the area of the ellipse
7. Click “Generate Z-score Overlay” or “Generate % Threshold Overlay” to generate an image with IOSI signals binarized and overlaid onto the cortical vasculature image

Installation

1. Clone the Intrinsic-Signal-Imaging repository from Github: <https://github.com/zeigerlab/Intrinsic-Signal-Imaging>
   1. For detailed instructions, see <https://docs.github.com/en/repositories/creating-and-managing-repositories/cloning-a-repository?tool=desktop>
2. Add the folder containing the repository to your MATLAB path
   1. For detailed instructions, see: <https://www.mathworks.com/help/matlab/matlab_env/add-remove-or-reorder-folders-on-the-search-path.html>
3. Install the “Image Processing Toolbox” in MATLAB: https://www.mathworks.com/products/image.html

Image Acquistion Settings