Protocol for two photo data analysis.

Note that, the data structure I impose for two photon imaging data is crucial for the analysis.

Please use the same directory structure, unless you change the matlab code.

1. Imaging experiment

Recording PC: [Task]\[Mouse]\[Date]\[Session]\\*.oir

Note: each [Session] file contains a continuous data. Different sessions can be analyzed all together as long as the imaging plane is the same (same day, same head angle, same depth, same head position).

1. Transfer data to an external HD (Raw data HD).

\home\ImagingData\[Task]\[Mouse]\[Date]\[Session]\\*.oir

1. On your data analysis PC,

ImageJ Olyumpus Viewer: Convert to Tiff files.

\home\ImagingData\[Task]\[Mouse]\[Date]\[Session]\\*.tif

↓

1. Suite2P analysis: image registration

\home\ImagingData\[Task]\[Mouse]\[Date]\[Session]\Plane[#]\\*.tif % movement corrected movie.

\home\ImagingData\[Task]\[Mouse]\[Date]\[Session]\Plane[#]\x5movie\\*x5\*.tif % x5 times fast

1. Suite2P analysis: ROI detection

\home\ImagingData\[Task]\[Mouse]\[Date]\[Session]\F\_[Mouse] \_[Date]\_plane[#]\_Nk[].mat

↓

1. RoiGui: curating ROIs.

\home\ImagingData\[Task]\[Mouse]\[Date]\[Session]\F\_[Mouse] \_[Date]\_plane[#]\_Nk[]\_proc.mat

Protocol for analyzing behavior data

1. Behavior experiment

Recording PC: [Task]\[Mouse]\[Date]\ \*.dak

Note: dak format is a special binary file format to store streaming data written by Kosuke Hamaguchi.

1. Transfer data to an external HD (Raw data HD).

[Task]\[Mouse]\[Date]\ \*.dak

1. On your data analysis PC,

MATLAB: LeverTaskAnalysis

Data is uploaded to MySQL: tbl\_basicheadfix\_analysis

Protocol for relating behavior data and imaging data

1. MATLAB: Behavior\_Activity\_Analysis\_001

Press [Combine ProcBehavior data] button. Select the behavior data and proc file to be combined.

1. Behavior experiment