3D Slicer image computing platform

About

- Free, open source software package for visualization and image analysis of medical, biomedical, and other 3D images and meshes
- Desktop software written in C++ using VTK, ITK, Qt

Features

- DICOM support and PACS
- Image segmentation and registration
- Cloud based computing (browser, Docker, Jupyter)
- Extensible and scriptable (Python)

Limits

- Strong medical focus
- Up to 4D images => channels need to be separate images
- Few file formats: DICOM, Tiff, nrrd, …

Neuroglancer

About

- Free, open source WebGL-based viewer for volumetric data

Features

- Support for zarr and other cloud formats for large datasets
- File formats: zarr, Tiff, HDF5, NifTI, own format, …
- Visualization of volumes, segmentations, meshes, annotations

Limits

- Volume rendering experimental (not working)

Demo

- https://github.com/google/neuroglancer
- https://zarr.dev/datasets/
- Tutorial: https://connectomics.readthedocs.io/en/latest/external/neuroglancer.html