

# Home

## About

This is the private confluence area for the SLASH project.

Advanced instrumentation and cellular imaging techniques using high-throughput 3D electron microscopy are driving a new revolution in the exploration of complex biological systems by providing near seamless views across multiple scales of resolution. These datasets provide the necessary breadth and depth to analyze multicellular, cellular, and subcellular structure across large swathes of tissue. While these new imaging procedures are generating extremely large datasets of enormous value, the quantities are such that no single user or even laboratory team can possibly analyze the full content of these data through traditional means. To address this challenge, researchers from the [National Center for Microscopy and Imaging Research](#) at UC San Diego have teamed with software visualization experts from the [Scientific Computing and Imaging Institute](#) at the University of Utah to build SLASH, a System for Large-scale Automatic Segmentation utilizing High-performance computing techniques.

The featured product of this collaboration is the SLASH Portal, a community science gateway, which provides a unified 'one-stop-shop' for high-throughput segmentation of large neuropil datasets. This system: 1) provides simplified access to leading-edge machine learning algorithms for automatic segmentation of cellular and sub-cellular structures; 2) marries these software with tools for producing training data and performing data refinement to improve the accuracy and throughput of the final segmentation, 3) integrates these tools into logically ordered scientific workflows, which abstract the complexity of utilizing an unprecedented pool of resources for high performance computing and 'Big Data' management, 4) provides a simplified graphical user interface and web tools for accessing data, executing workflows and visualizing results, and 5) aggregates a massive knowledge base of training data to further increase the efficiency and throughput of the overall process. This system is natively coupled to the Cell Centered Database, allowing for facilitated management, sharing and collaborative analysis of large data, metadata, and data products.

SLASH is a project spawned from the "**NeuroSeg**" group, and we still use a "neuroseg" e-mail list ([neuralseg@sci.utah.edu](mailto:neuralseg@sci.utah.edu)), so it's easy to get the two terms confused.

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### PUBLIC SITE:

To access SLASH's public site go to: <https://slashsegmentation.com>

.... this site is used to release any public videos and source code, and generally promote what we do to the outside world.

### PRIVATE AREAS:

To access the private areas for developers go to:

- [CCDB Web Services](#)
- [Installing Kepler 2.4](#)
- [Nervetrace](#)
- [Running matplotlib on Megashark](#)
  
- [3D Tracing Test \(WIB\)](#)
- [CCDB CHM trained model rest service](#)
- [About elephanta.crbs.ucsd.edu for the SLASH project](#)

... if you can't see any child pages listed here it's because you don't have access. The develop areas are for us to create pages, share links, information and which don't belong on the public area.