

The Reconsttrue Stack

Backend

Neuroboss combines

- **BossDB**
- **SABER**
- **JupyterHub**

BossDB is

- **Peta-scale neuroimaging repo**
- **AWS serverless super-scalable**
- **Custom code from MICrONS**
 - **IARPA project ~2.3 PB data**
 - **Written by JHUAPL**
 - **Leverages Hubble learnings**
- **Bossphorus for localhost dev**

SABER is

- **Designed to work with BossDB**
- **Analytics pipeline framework**
- **Apache Airflow on AWS Batch**
- **Another tool from JHUAPL**

What is it?

Open source neuroimaging platform

- **Licensed commercial friendly**
- **Curated best-of-breed tools**
- **Opinionated conceptual integrity**
- **Reconsttrue code is all Apache 2.0**

Cloud-native

- **Deploys on commercial clouds**
- **All GUI is web browser tech**
- **CLI is the only other UI**

Commericalized

- **Multi-tenant**
- **High-res billing system**

Think: departments in orgs

Front end

Jupyter servers

- **JupyterHub**
- **Binder**
- **Colab**

Jupyter clients

- **JupyterLab^a**
- **Jupyter widgets**

Jupyter widgets

- **Can run in *.ipynb**
- **Can run in any web page**

