The New SciServer: Collaborative Tools for Data-Driven Engineering and Science

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What is SciServer?

A system for researchers across multiple domains to host and share datasets, featuring query and analysis tools for collaborative research.

History and Purpose

- Started with SDSS SkyServer
- Goal: quick interactive access to rich content
- Idea: bring the analysis to the data

How to Get Involved

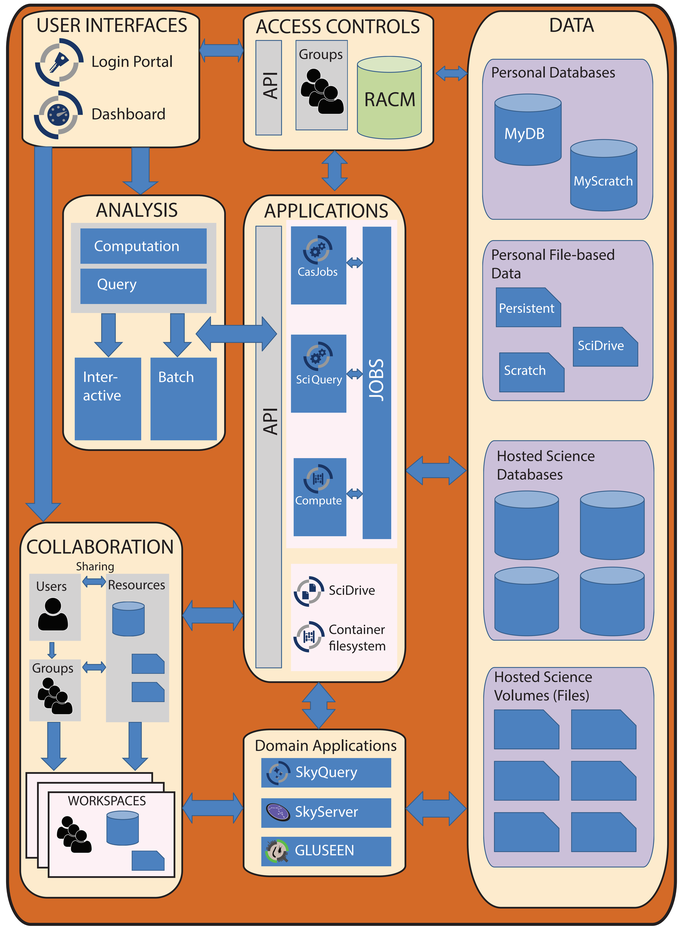
- Use our toolkit (www.sciserver.org)
- Volunteer to be an Early Adopter by emailing sciserver-help@jhu.edu
- Find bugs in our alpha system
- Suggest new features
- Let us help share your data
- Introduce us to other teams with data to share

Team

- PI – Alex Szalay
- PM – Mike Rippin
- Team Leads – Ani Thakar, Gerard Lemson, Jordan Raddick, Bonnie Souter
- Technical: Dmitry Medvedev, Manu Popp, Jai Won Kim, Sue Werner, Victor Paul, Jan Vandenberg, Lance Joseph, Alainna White, Laszlo Dobos, Camy Chhetri, Joseph Booker

System Features

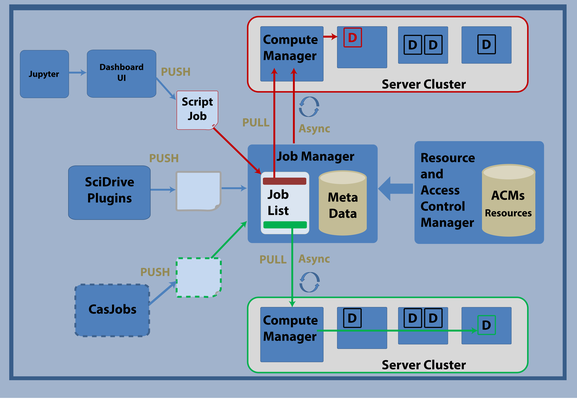
- Science data hosting (files and databases)
- SQL query access
- Analysis with Jupyter notebooks
- Interactive and batch job submission
- Collaborate and share
- Resource access controls
- Personal storage (files and database)
- API mode access
- Single sign-on



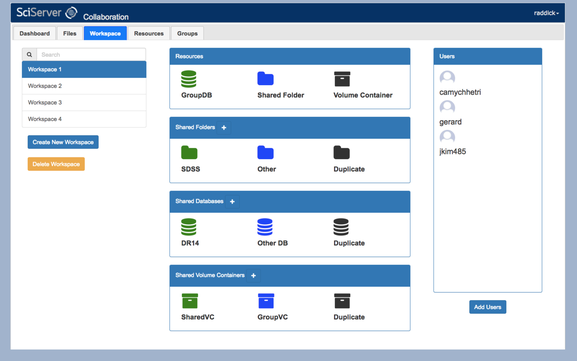
Technologies

jupyter, Linux, docker, python, R, MATLAB, Java, PostgreSQL, SQL Server, MySQL, openstack, Windows

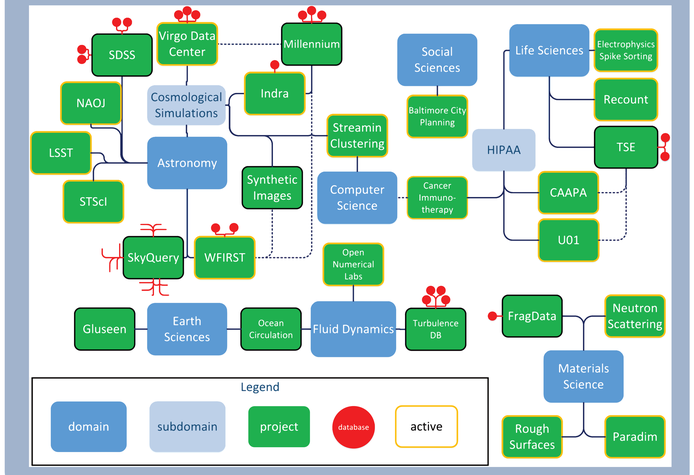
Compute and Query Job Scheduling



Collaborative Workspaces

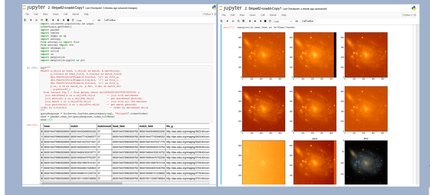


Science Collaborations



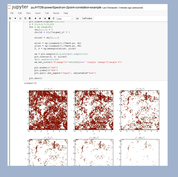
Science Examples

Astronomy

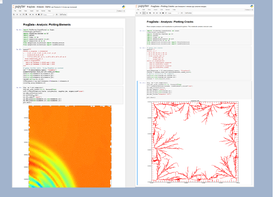


Genomics

Turbulence



Materials Science



Oceanography