Open Science Grid

OSG Field-of-Science Accounting Update

OSG Council Meeting

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Background

- **Sites have long expressed a need to better understand who is using their sites? And what science is being done?**
  - **For single science VOs (e.g. atlas, cms, sbgrid...) there was no issue**
  - **For multi-science VOs (e.g. osg, engage, hcc, glow, uc3….) we have not had a good solution**

- **As a part of establishing OSG as a service provider in XD, we had to enable tagging of usage to a "ProjectName" (i.e. the XSEDE allocation id)**
  - **Identifies a PI, their science and other related information**
  - **Every job is launched with an attribute that identifies the ProjectName**

- **Now we are leveraging this ProjectName construct to improve field of science account in OSG** – *a joint activity between the Gratia project and OSG User Support*

What has been done so far?

- **Developed and trialed the Field-of-Science accounting tools with vo=osg (for jobs submitted at OSG-XD host)**

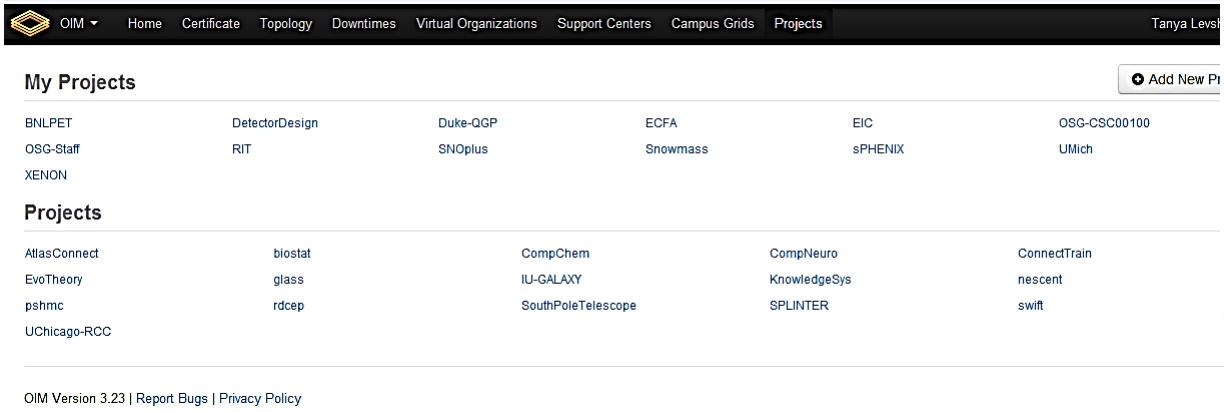
Methodology

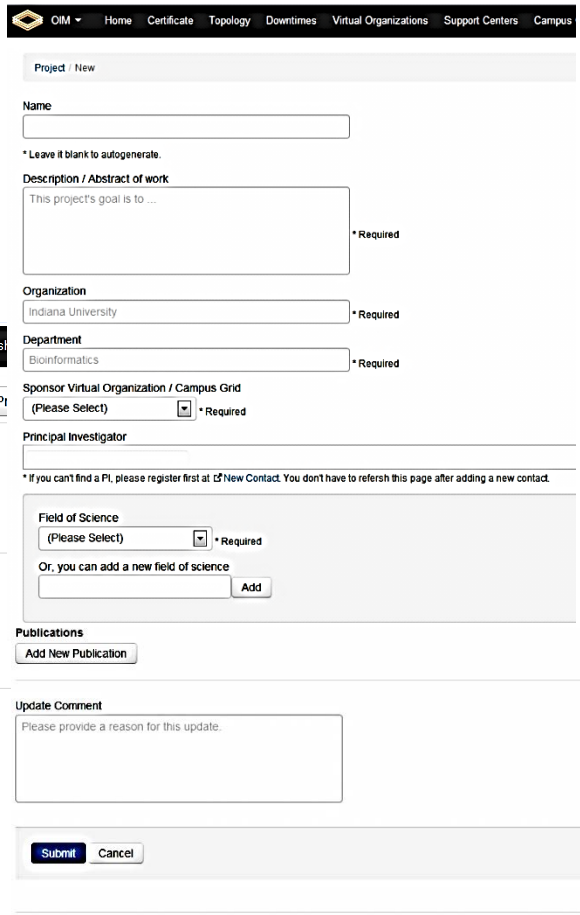
1. **Whenever we enable a new research group, the sponsoring VO or Campus Grid registers the project in OIM**
2. **The user includes a line in their job identifying their ProjectName (e.g. +ProjectName = “Snowmass")**
3. **The gratia probe at the submit host send records to the Gratia DB including the ProjectName for each job**
4. **Appropriate Gratia queries can be used to provide different views of the usage**

(No changes are needed at sites)

Project Registration via OIM

- Sys-Admin of the submission node registers a new project and relevant information at OIM
- Project is sponsored by a VO or a Campus Grid





Example ProjectName

Name	Snowmass
Description	Simulate hundreds of millions of high-energy proton proton collisions, which mimic the collisions expected at future hadron colliders. This simulated data is used to assess the physics potential of future colliders, allowing US decision makers and funding agencies to prioritize future physics projects.
Organization	Brown University
Department	Physics
Sponsor Campus Grid	OSG-XD
Principal Investigator	Meenakshi Narain
Field Of Science	High Energy Physics

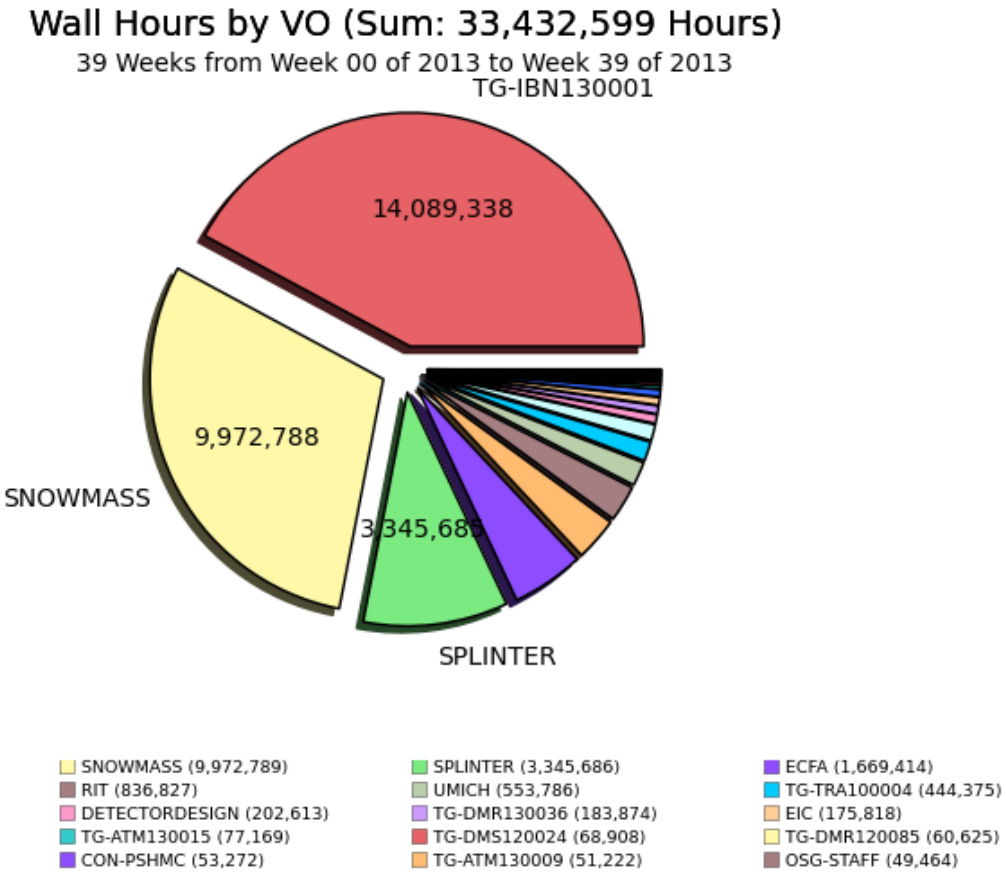
Currently Registered Projects

- **OSG-VO sponsored projects -** https://oim.grid.iu.edu/oim/campusgrid?id=13

Name	PI
OSG-CSC00100	George Rudolph
SNOplus	Joshua R Klein
UMich	Paul Wolberg
DetectorDesign	John Strologas
OSG-Staff	Chander Sehgal
Snowmass	Meenakshi Narain
ECFA	Meenakshi Narain
RIT	Stanisław P. Radziszowski
BNLPET	Martin Purschke
EIC	Tobias Toll
sPHENIX	Martin Purschke
Duke-QGP	Steffen A. Bass
XENON	Alfio Rizzo

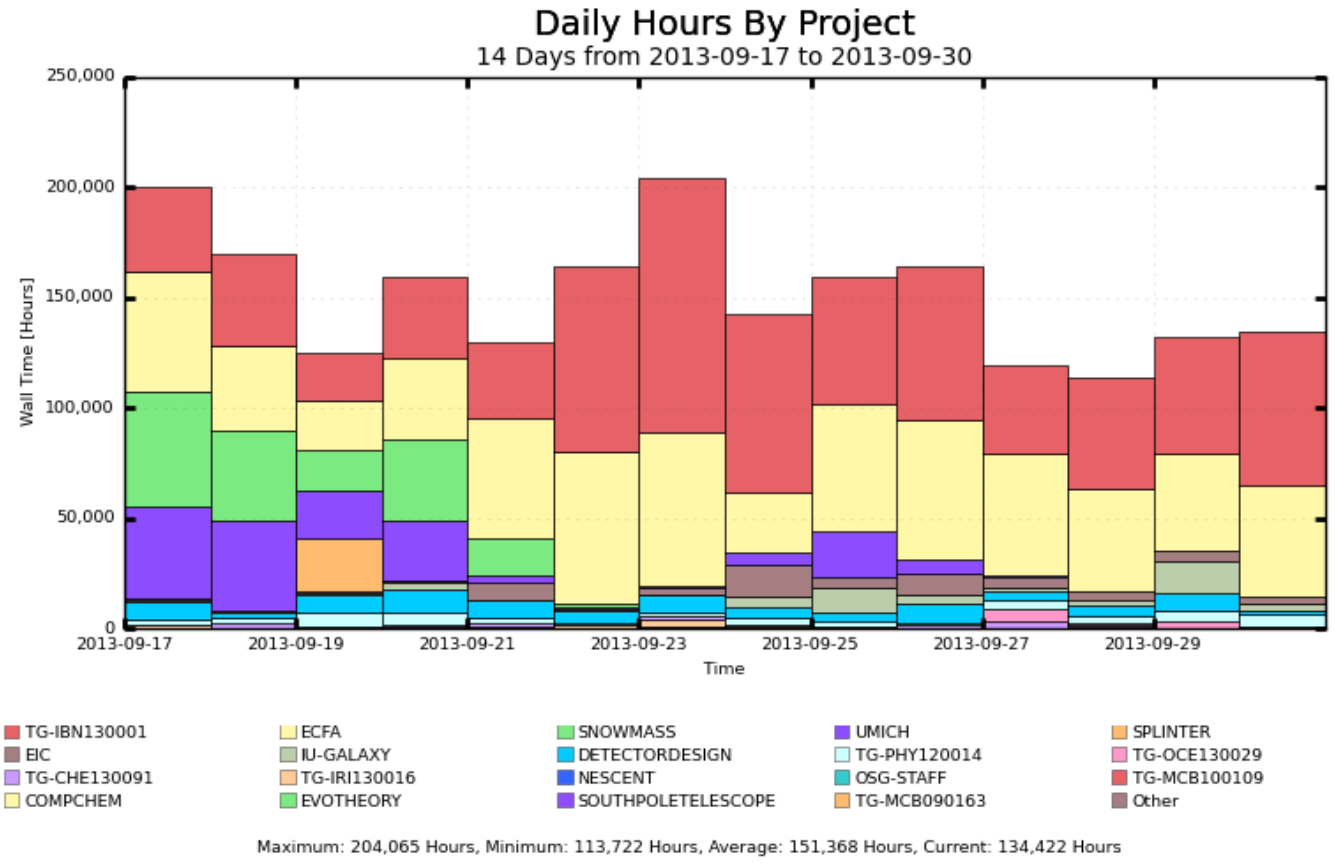
Example Reports - 1

Usage by all Projects in 2013



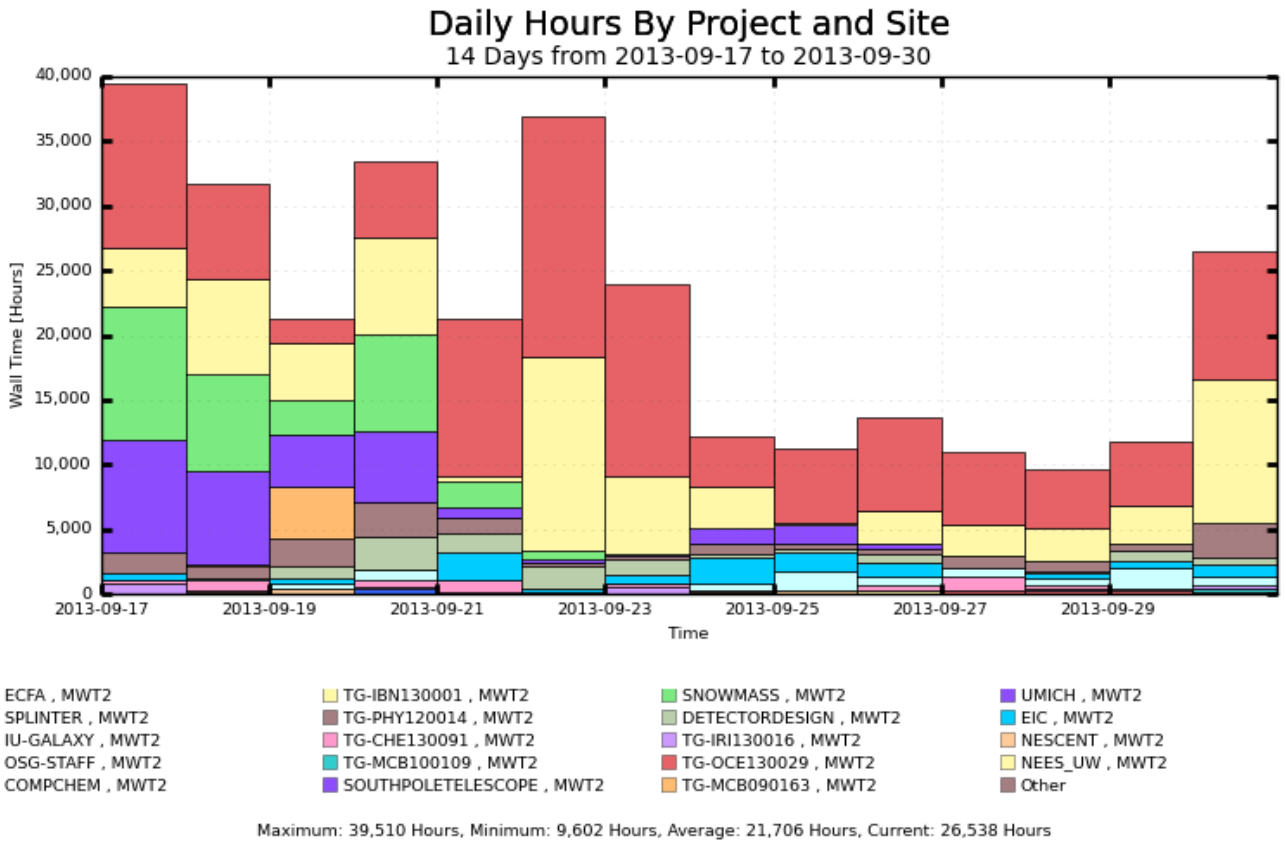
Example Reports - 2

- **Project Usage in last 2 weeks (vo=osg)**



Example Reports - 3

Project Usage for Site = MWT2 in last 2 weeks (vo=osg)



Weekly Email Reports

OSG Weekly REPORT

Project Name	PI	University	Science Domain	Hours
SPLINTER	Robert Quick	Indiana University School of Medicine	Medicine	17
IU-GALAXY	Robert Quick	Indiana University	Bioinformatics	22,947
OSG-Staff	OSG Staff	Various	Testing & Integration	575
Snowmass	Meenakshi Narain	Brown University	LPC group	54,958
ECFA	Meenakshi Narain	Brown University/LPC group	Particle Physics	378,293
DetectorDesign	John Strologas	University of New Mexico	Medical Imaging	49,569
UMich	Paul Wolberg	University of Michigan	Microbiology	63,955
EIC	Thomas Ullrich	Brookhaven National Lab	Particle Physics	42,801
OSG-VO Total				613,116

XD Weekly REPORT

Project Name	PI	University	Science Domain	Hours
TG-OCE130029	Yvonne Chan	University of Hawaii, Manoa	Ocean Sciences	57
TG-IRI130016	Joseph Cohen	University of Massachusetts, Boston	Information, Robotics, and Intelligent Systems	5,891
TG-MCB100109	Lillian Chong	University of Pittsburgh	Molecular Biosciences	247
TG-MCB090163	Michael Hagan	Brandeis University	Biophysics	79
TG-IBN130001	Donald Krieger	University of Pittsburgh	Integrative Biology and Neuroscience	479,133
TG-PHY120014	Qaisar Shafi	University of Delaware	Physics	17,153
TG-CHE130091	Paul Siders	University of Minnesota, Duluth	Chemistry	6,365
XD Total				508,926

GratiaWeb Reporting

- Current suite of reports available at http://gratiaweb.grid.iu.edu/gratia/project
- Currently we can get Project usage via GratiaWeb but then we have to manually look up Project information in other databases ➔ we are planning to auto-link from GratiaWeb
  - to OIM ProjectName database
  - to XSEDE allocation database
- Project queries in GratiaWeb are a work-in-progress – we have developed a set of reports which will evolve based on feedback

What's Next

- **Evolve FOS-Accounting system and reports based on stakeholder feedback.**
- **How best to encourage other multi-science VOs to adopt this technology?**
- **We request input from the Council on this approach and usefulness of these methods/tools.**