PDSF User Meeting

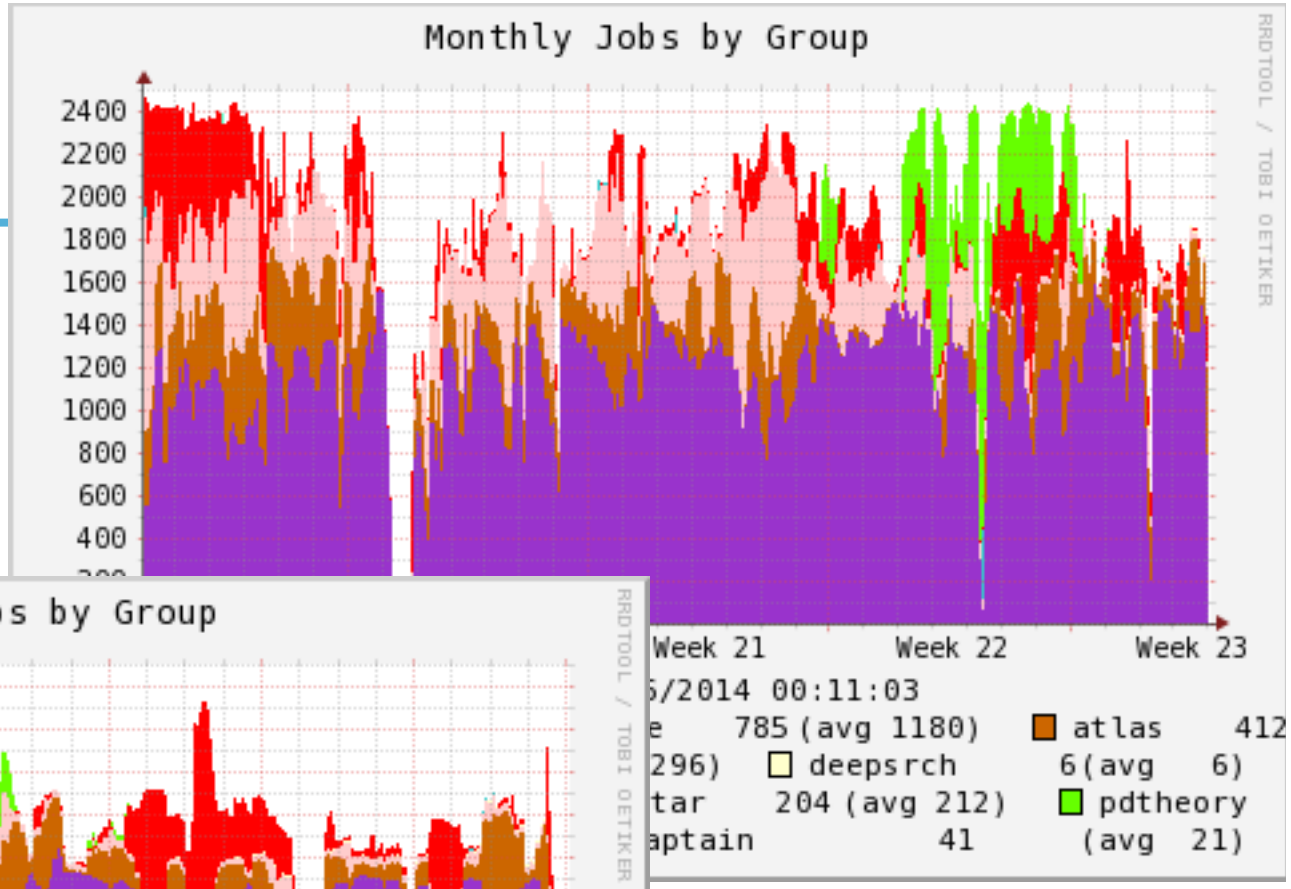
June 10, 2014

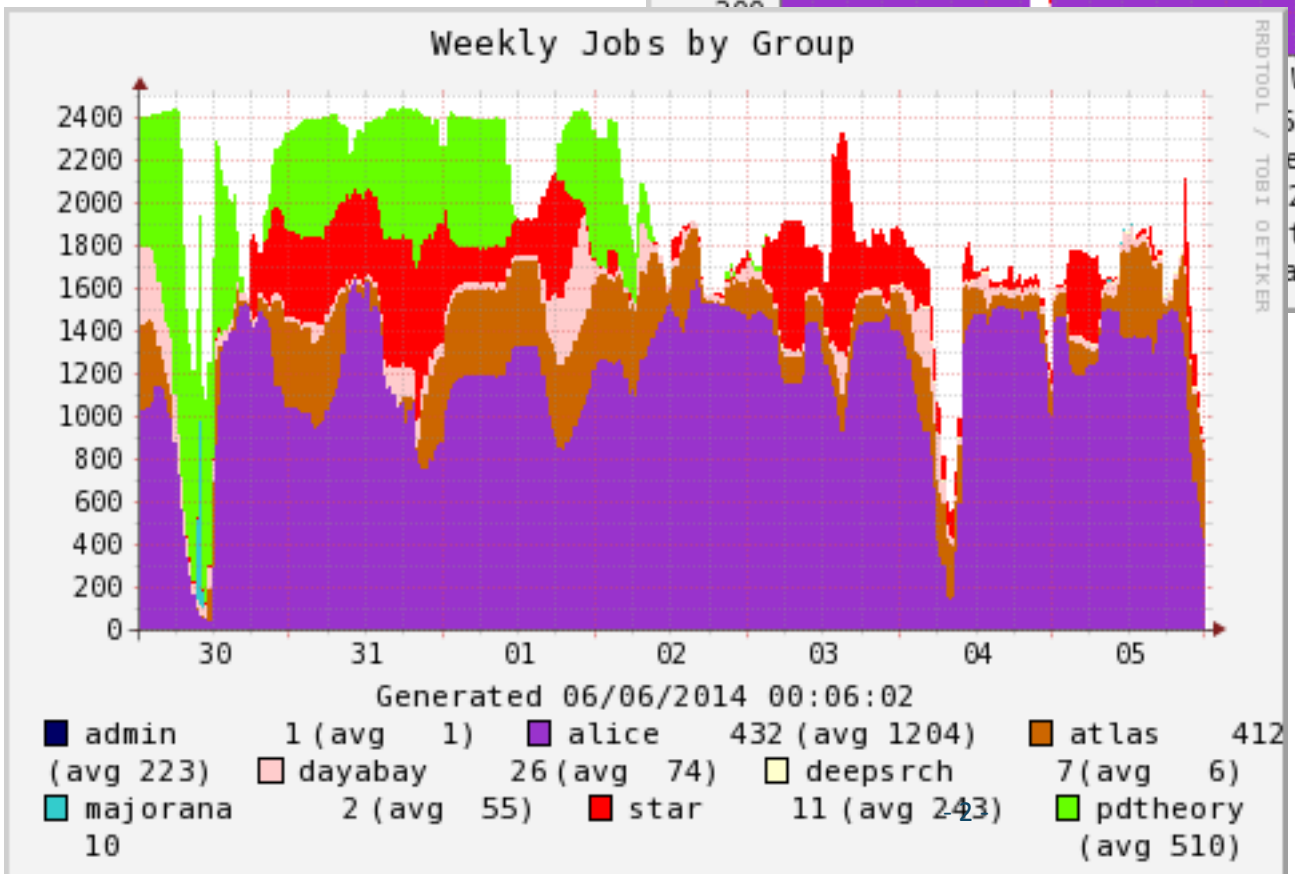
Lisa Gerhardt

U.S. DEPARTMENT OF ENERGY | Office of Science

BERKELEY LAB
Lawrence Berkeley National Laboratory

Utilization





BERKELEY LAB
Lawrence Berkeley National Laboratory

Past Outages

- **5/13/14 (all day): Quarterly maintenance**
- **6/02/14 – 6/16/14 (ish): Global scratch at 60% of peak due to rolling upgrade**

Planned Outages

- **None**

Other Topics from PDSF Staff

- **NERSC is moving**
- **Four story, 140,000 GSF**
  - 300 offices on two floors
  - 20K -> 29Ksf HPC floor
  - 12.5MW -> 42 MW to building
- **Located for collaboration**
  - CRD and ESnet
  - UC Berkeley
- **Exceptional energy efficiency**
  - Natural air and water cooling
  - Heat recovery
  - PUE < 1.1
  - LEED gold design

Other Topics from PDSF Staff

- **Move plans are still being finalized and we will share more information as soon as possible. Here is our current thinking:**
  - Likely take place in Q3 or Q4 of 2015
  - PDSF: Mendel will move to the new building, old computes will not
    - Old computes will stay online during move (~1300 cores)
    - Once Mendel/PDSF is up in the new building, old nodes will be retired
    - Estimated to take ~1 month
  - 2-3 weeks downtime for HPSS
  - Periods of slow I/O on NGF as data is synced between Oakland and new facility (project, global scratch, and global homes)
  - Some intermittent disruptions on other services
- **System retirements**
  - Dirac (GPU testbed) will retire Dec. 12, 2014
  - Carver will retire in our Oakland facility Aug. 31, 2015
  - Hopper will retire in our Oakland facility Sept. 30, 2015

U.S. DEPARTMENT OF ENERGY | Office of Science

We ask for your patience during our move!

BERKELEY LAB

Other Topics from PDSF Staff

- **Multicore jobs can be run at PDSF**
  - Simple multi-core request
    - qsub -pe single <number_of_slots> <batch_script>
  - Open MPI
    - SL6 only, "module load openmpi" gives v 1.6.5
    - qsub -pe mpi <number_of_slots> your.script
    - your.script: mpirun -n <number_of_slots> a.out
- **So far only works within a single node, still getting the handshake between CHOS and UGE to work**
- **Batch system charges for # of slots requested**

Topics from the Users