

GPCF Status

Dennis Box, FNAL Computing Division
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GPCF Overview

- Batch Submission System to local condor pool and grid
 - 144 local slots (16 per worker node)
 - Worker nodes prioritized to various experiments
 - Submission node is `gpsn01.fnal.gov`
 - GlideinWMS makes grid slots appear as part of local condor pool
- Monitoring page
 - http://gpsn01.fnal.gov/condor_monitor/index_week_all.html
 - This is broken right now, see
 - http://if01.fnal.gov:8080/condor_monitoring/index_week_all.html
 - For how its supposed to look

How its supposed to look

Resources:
[Grid + MINERVA cluster] [Grid only] [MINERVA cluster only]

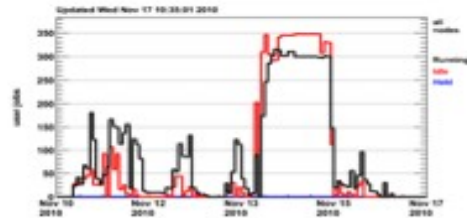
Time scale:
[Show] [day] [week] [month] [year]

Vertical scale:
[linear] [logarithmic]

Grid + MINERVA cluster

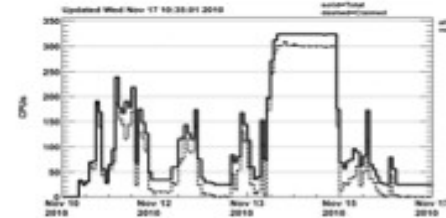
Jobs

Running & Idle & Held



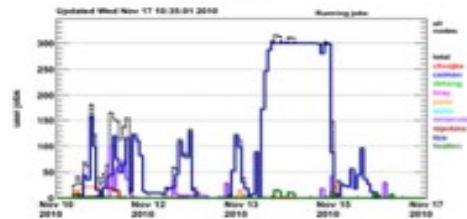
Machines

Total & Claimed



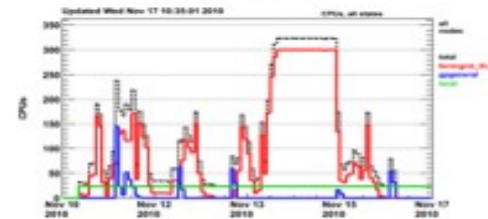
Jobs

Running, by user



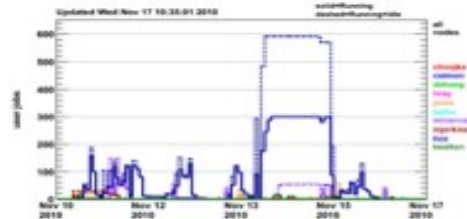
Machines

Total, by resource



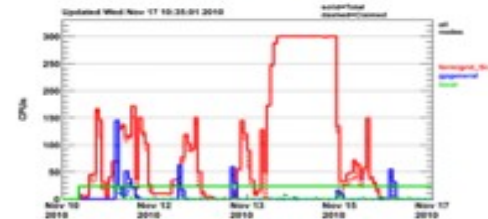
Jobs

Running & Running+Idle, by user



Machines

Total & Claimed, by resource



Using GPCF

- Local Batch Nodes Prioritized by Group/gid
- GRID also needs to know your Group/gid for their accounting/prioritization
- Export GROUP=(gid)
 - currently supported: minerva, nova, uboone, minos, lbne, mu2e
- `./grid/fermiapp/common/tools/setup_condor.sh`
- this will set up all the environment variables you need
- most important are `$CONDOR_TMP` and `$CONDOR_EXEC`
- then use `jobsub` or `friends` (see later slide) to submit.

Getting A Proxy

- you need this to submit to the grid
- log on to gpsn01
- `/grid/fermiapp/common/tools/request_robot_cert`
- (wait a bit till you get mail...)
- now need to make a robot cert
- `kcroninit`
- Put this in your crontab with `crontab -e`
 - `07 1-23/2 * * * /usr/krb5/bin/kcron /scratch/grid/kproxy mu2e (or whatever)`
- you can now submit to the grid

Submitting

- you can submit from the interactive nodes
 - Node names: **GROUP**gpvm**number**
 - ie novagpvm01, mu2egpvm01, minervagpvm03, etc
- export GROUP=(your experiment)
- Source /grid/fermiapp/common/tools/setup_condor.sh
- jobsub -h
 - Will give you lots of options
- the condor commands (condor_q et al) are wrapped so they ask the submit node (gpsn01) and return results locally
- Jobsub sleep 120 will send a sleep command to batch node for 120 seconds
- Add -g (jobsub -g sleep 120) to test sending to the grid

Submitting, pt 2

- If you already know and love `minerva_jobsub` add `-host gpsn01` and use it
- This option will be retrofitted to `nova_jobsub`, `minos_jobsub`
- Monitor with condor commands and graphs right now
 - better support for monitoring is in works

Testing

- 'Hello world' to grid as nova, mu2e, minos, uboone, minerva, lbne
 - Need to add argoneut, jdem
 - Authentication, permissions work as intended
- LBNE Applications
 - Local batch: yes
 - Grid: yes
- Nova Applications
 - Local batch : yes
 - Grid : underway
- Microboone: underway
- Local batch nodes seem slow, investigating