Offline Monitoring Report

- Status of current launch
- SWIF + monitoring DBs
- Next launch

July 29, 2015
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Current Launch

- 2015-03 ver10 launched on July 24 (Fri)
- 4314 jobs for 2015-03
- Transition to git for sim-recon, hdds
- Transitioning to SWIF usage:
  - Hybrid system of SWIF + usual monitoring DBs
  - SWIF submits jobs, job info is stored in SWIF, but usual DBs will be used with input from SWIF

Git

- Checked out sim-recon, hdds via Git
- Unlike svn, there is no explicit revision number
- We will record the output of git rev-list HEAD --count
  as well as the unique hash attached to each change available from git log
- Can use this hash value to go back to exact versions used, info saved in
  e.g., /group/halld/data_monitoring/run_conditions/soft_comm_2015_03_ver10.xml

svn ver.

```
<package name="sim-recon" version="19005"/>
<package name="hdds" version="19005"/>
```

git ver.

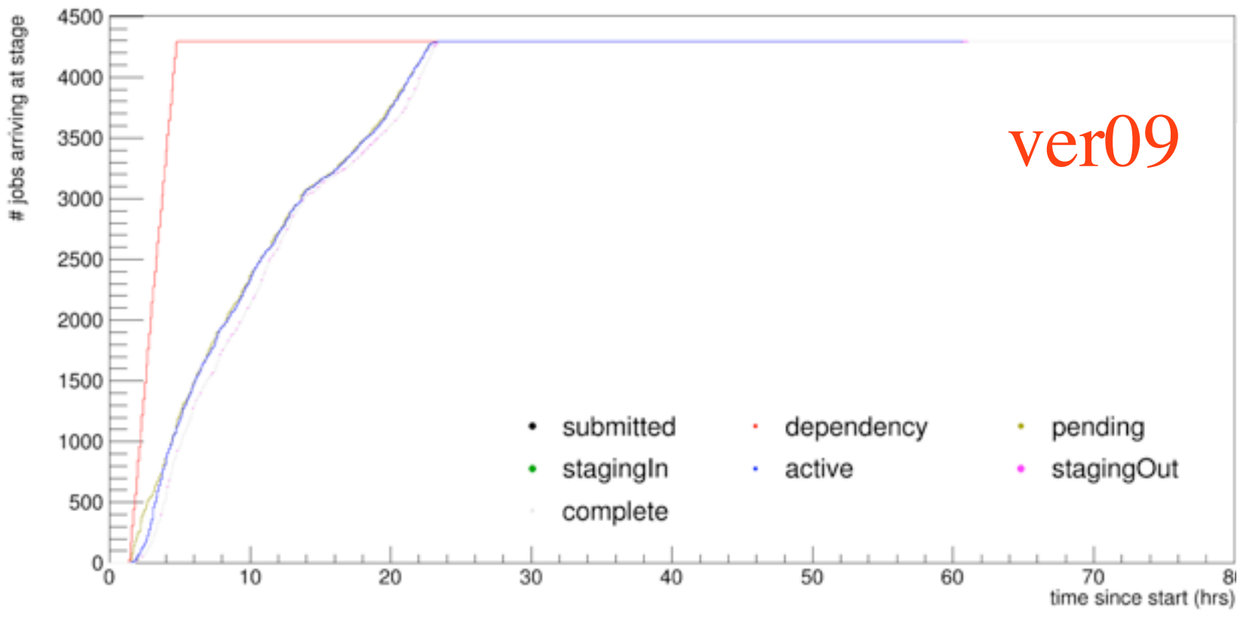
```
<package name="sim-recon" version="3457"
hash="e4c57bc6a8f58e0bf32ed3f887d55d7eedb700b2"/>
<package name="hdds" version="374"
hash="193cc022e6a58746b1f1a825dca9666e71b67921"/>
```

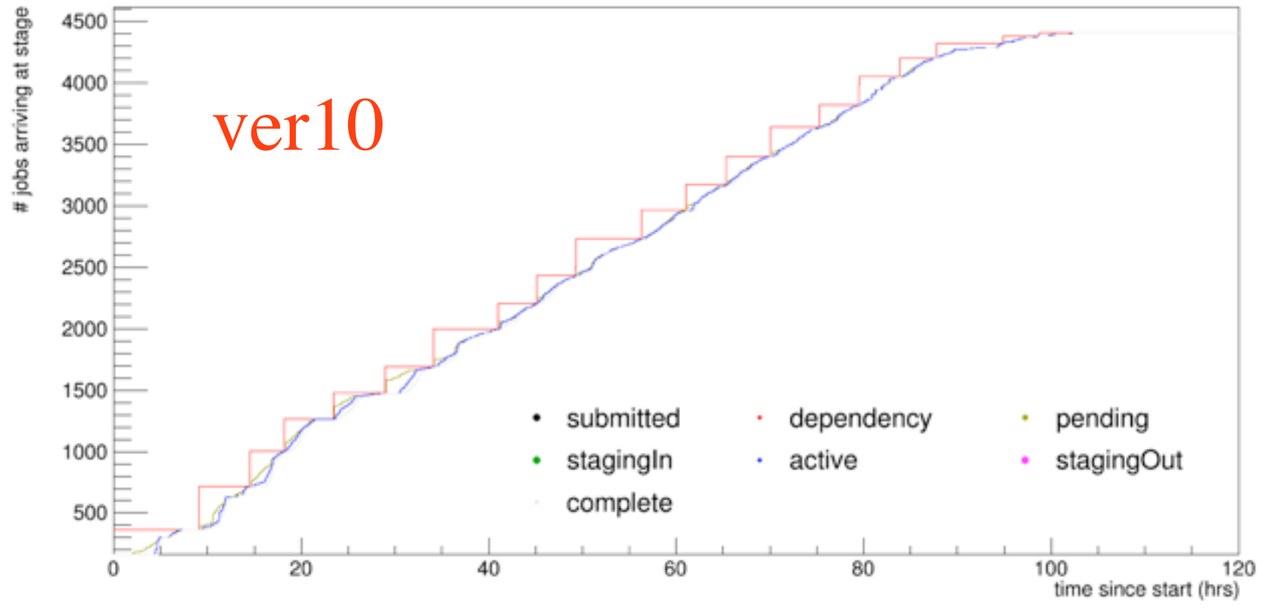
SWIF Issues

- Several issues arose due to difference in design philosophy:
  - SWIF will not submit all jobs to Auger at beginning
  - SWIF will halt job submission if ANY job fails
- Had cron job run every hour to clear problem jobs, run workflow

Statistics of Current Launch

- Time against # of jobs reaching each stage since start
- Took ~40 hours more than previous launch
- Submission for SWIF is in bunches

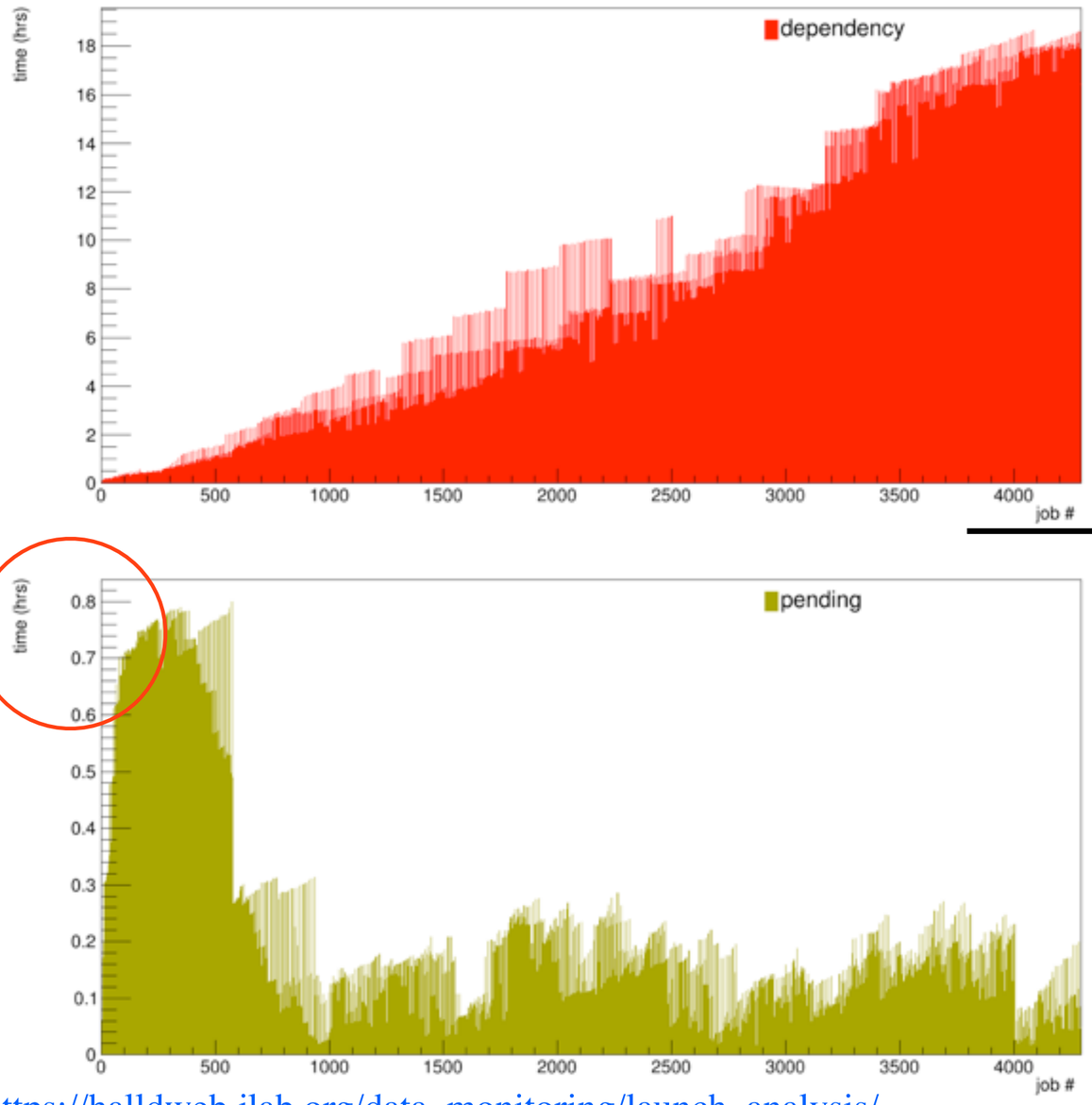




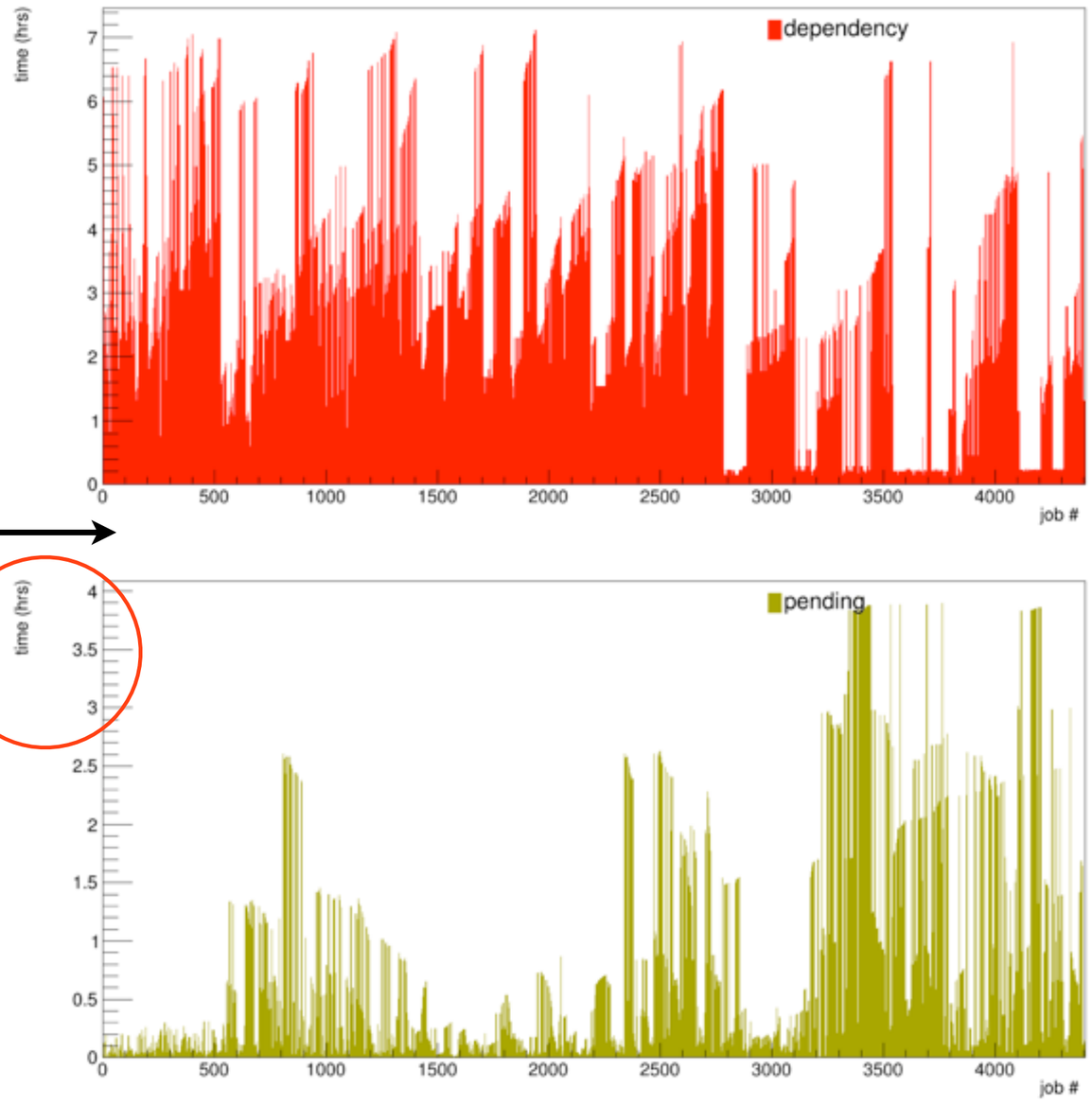
https://halldweb.jlab.org/data_monitoring/launch_analysis/

Time Spent in Dependency, Pending

ver09



ver10

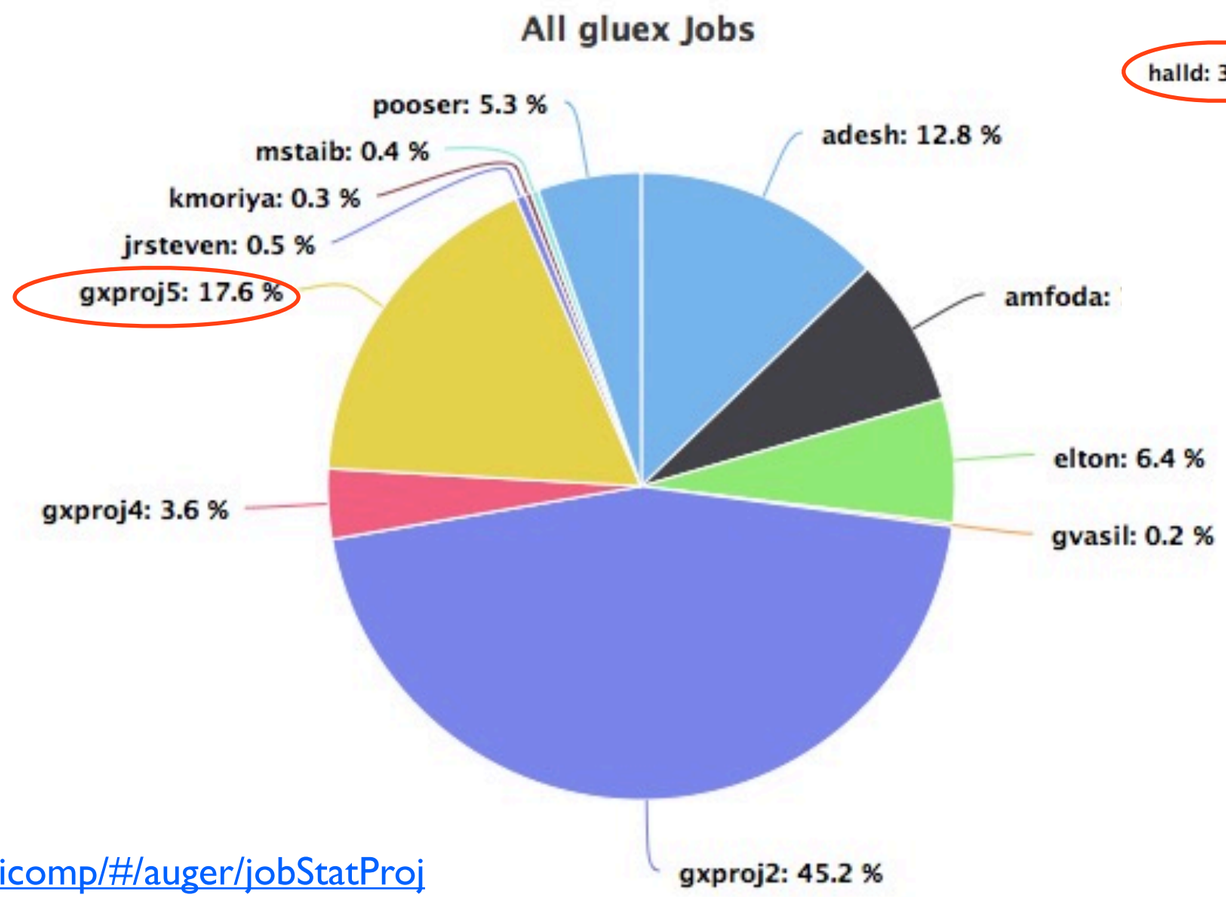


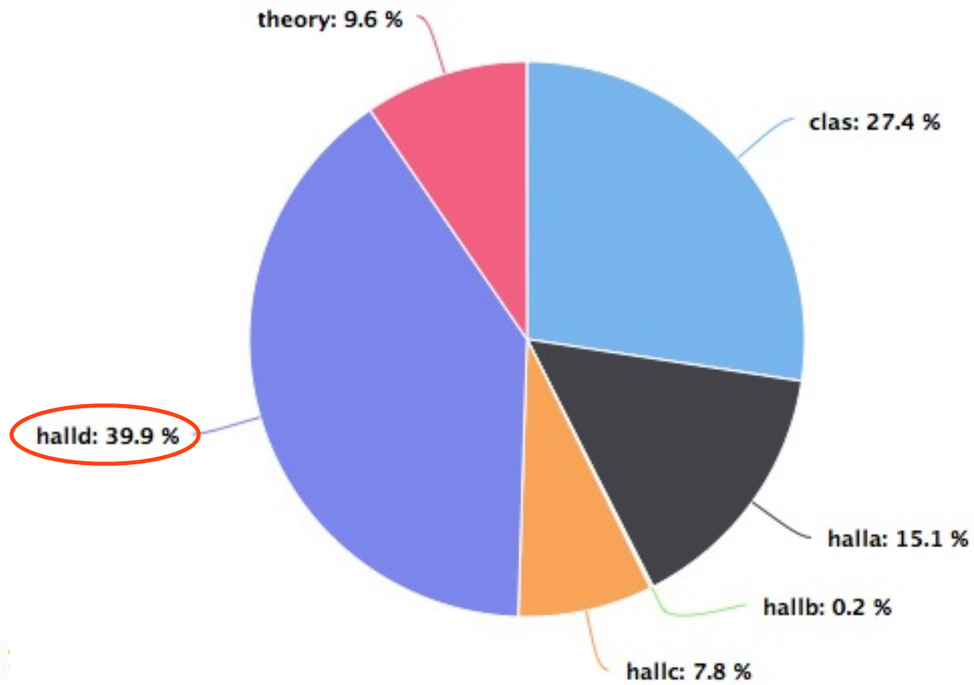
job #

https://halldweb.jlab.org/data_monitoring/launch_analysis/

Farm Environment

- Can’t blame everything on SWIF, many other jobs over weekend
- Stats for 2015/07/24 - 2015/07/29





Hall	Project	Job Count	Process Hour
clas	all	66,223	40,944
halla	all	10,357	22,532
hallb	all	1,405	242
hallc	all	6,282	11,706
halld	all	12,615	59,622
theory	all	50,075	14,279
		146,957	**149,325**

http://scicomp.jlab.org/scicomp/#/auger/jobStatProj

SWIF Benefits

- SWIF can increase requested RAM for jobs failed with OVER_RLIMIT
- Nominal request is 5GB of RAM
- Statistics:
  - 4314 unique jobs
  - 87 jobs requested 7GB of RAM
  - 9 jobs requested 9GB of RAM
  - No jobs requested more

Future of SWIF

- Working with Chris Larrieu on various aspects of SWIF
- Working on tool that acts as wrapper around SWIF for Hall D submission jobs
- XML parser for SWIF output → Job status tables in html
- User-defined tags allowed (e.g., run, file)
- Hope to open to collaboration soon

- Chris:
  - Working to move job submission engine of SWIF (handles interface of Auger and Jasmine) to be part of Auger
  - Working on implementing various requests

Moving Forward

- Work with Chris on SWIF features
- Work on Hall D tools for using SWIF
- Next launch will be Friday next week (August 7)