# Fifemon User Guide & Tutorial

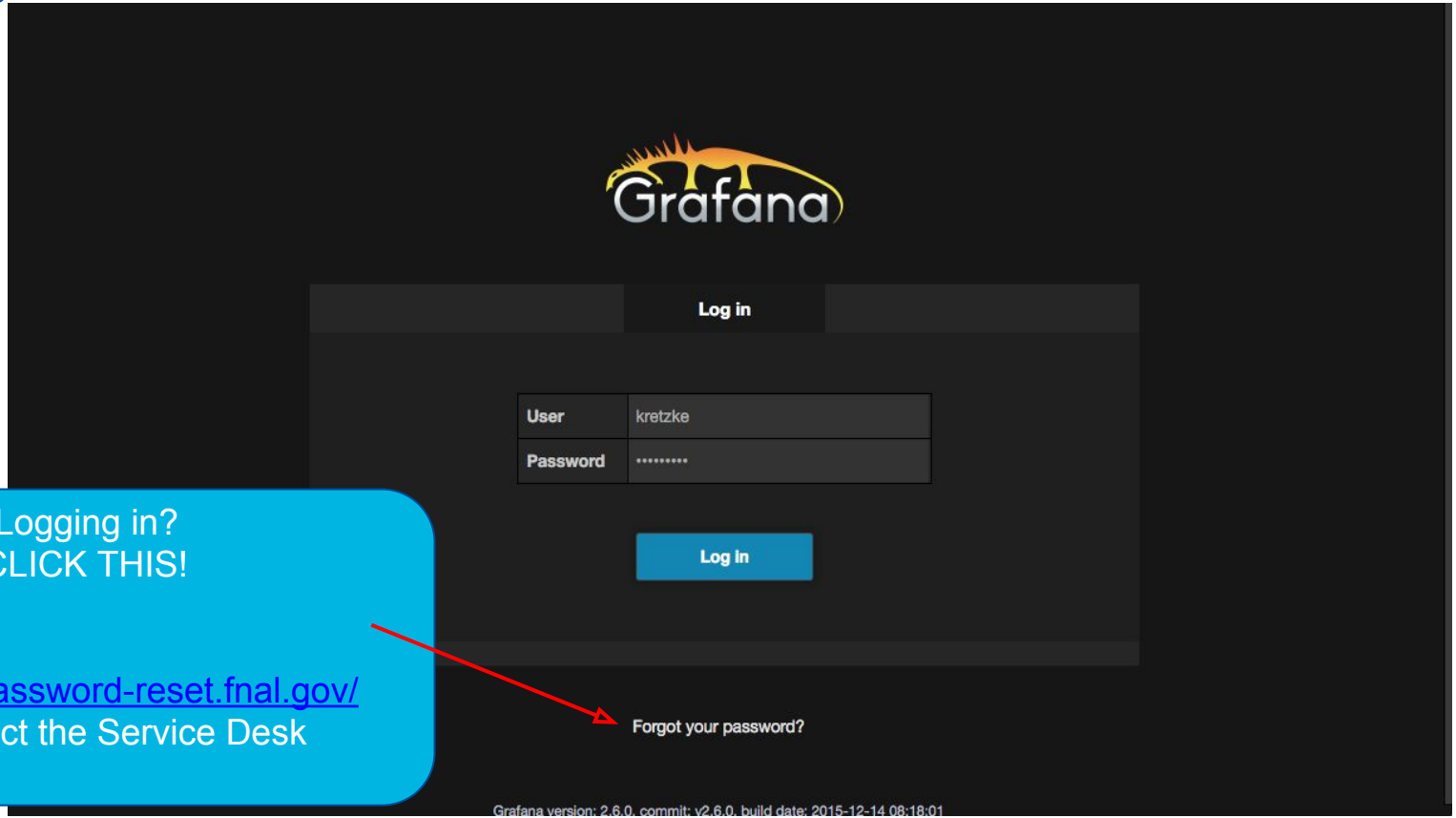
Fifemon v3.02 - June 2016

https://fifemon.fnal.gov/monitor

https://fifemon-pp.fnal.gov

# Grafana Basics

# Signing In: FNAL Services Account

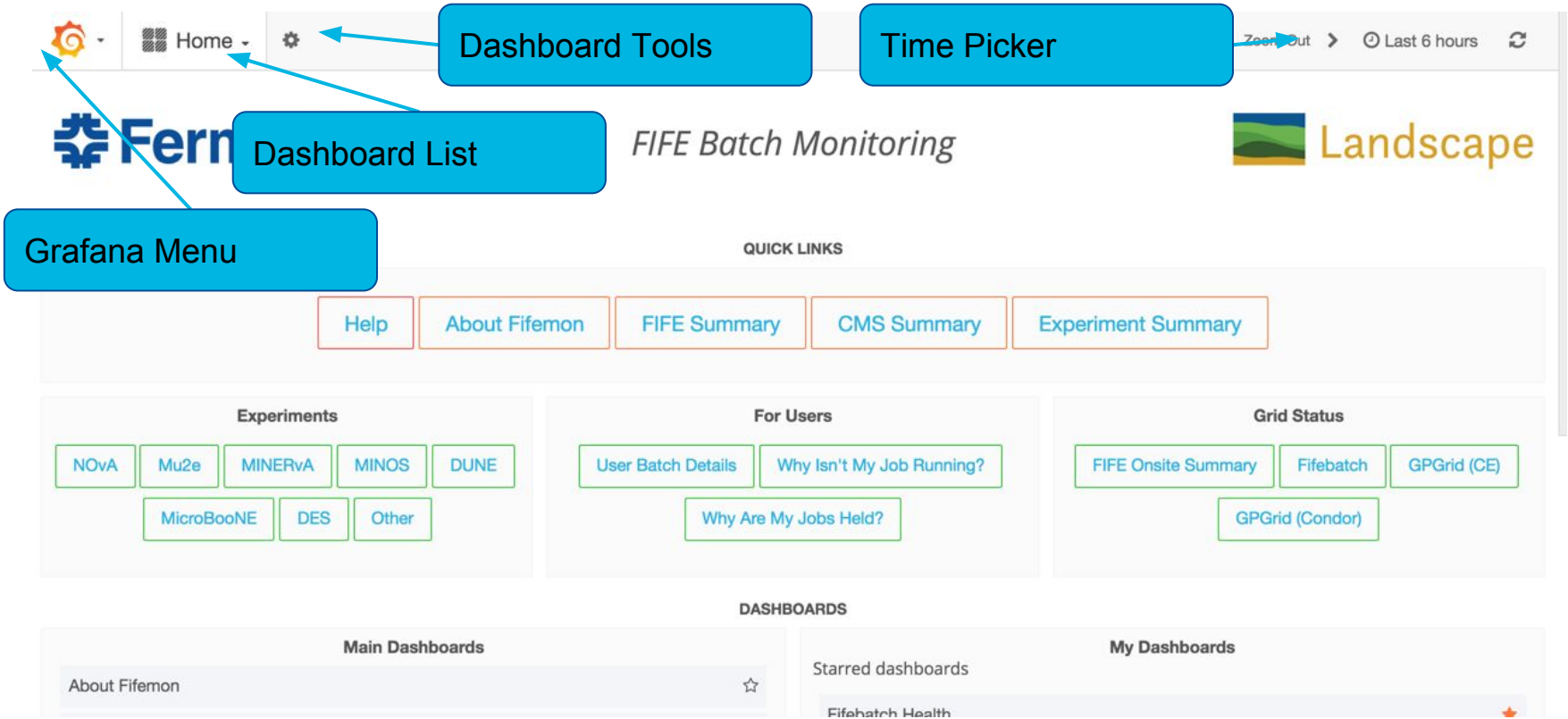



Trouble Logging in?
DON'T CLICK THIS!

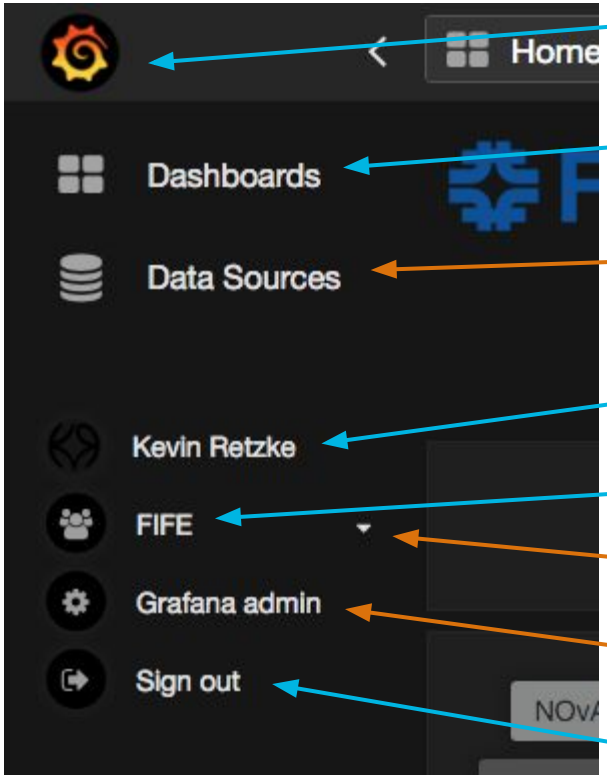
Go to:
https://password-reset.fnal.gov/
Or contact the Service Desk

# Signing In: FNAL SSO

# Grafana Interface

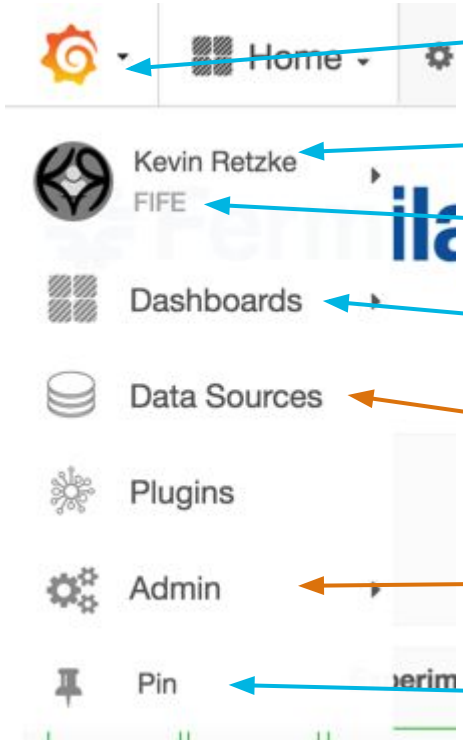


# Grafana v2.6 Menu



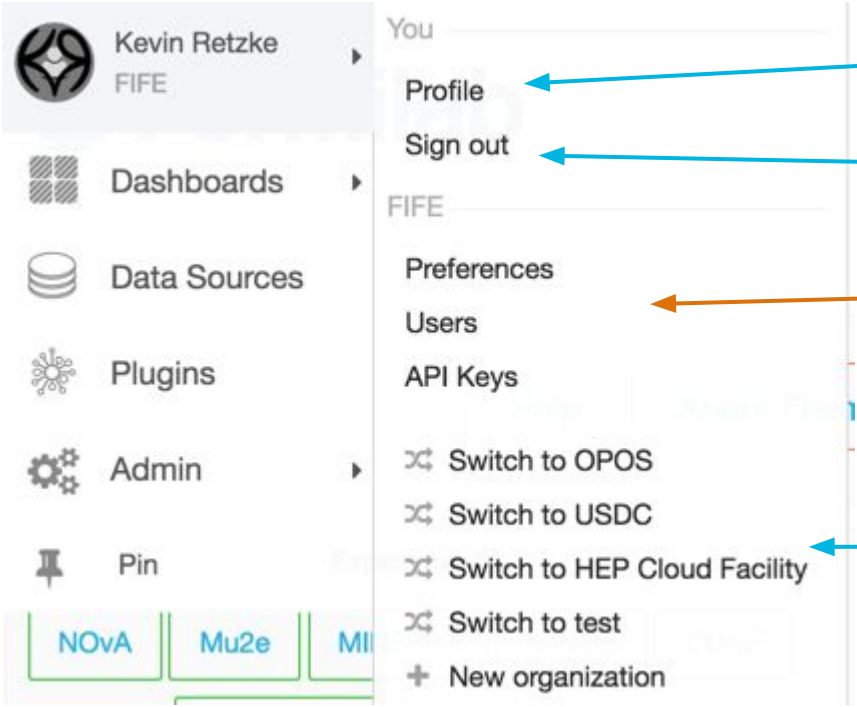

- Collapse Menu
- Home Page/Dashboard List
- Configure data sources (Org Admin only)
- Personal profile & settings
- Current Organization
- Change Organization & Org. Settings
- Grafana Settings (Grafana Admin only)
- Sign out

# Grafana v3.0 Menu




- Collapse Menu
- Personal profile & settings
- Current Organization
- Dashboard Menu
- Configure data sources (Org Admin only)
- Grafana Settings (Grafana Admin only)
- Keep menu open

# Grafana v3.0 User Menu



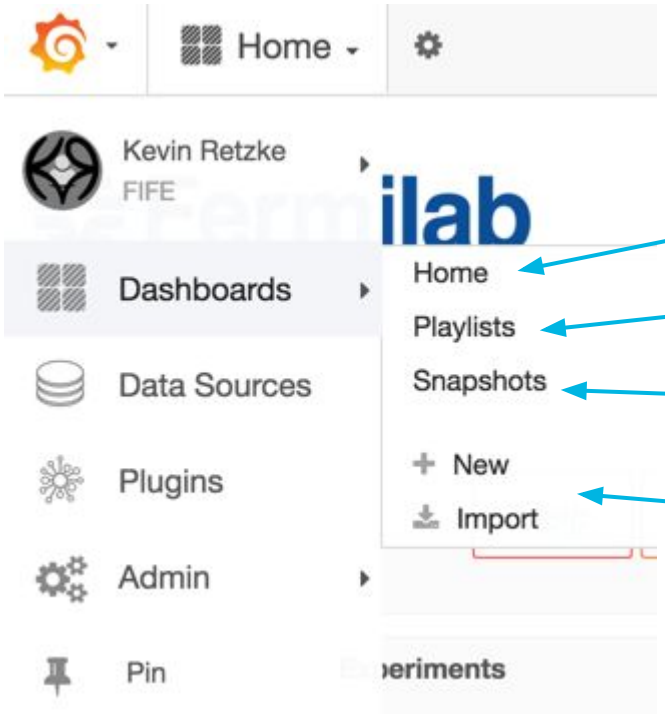

Personal profile & settings

Sign out (NO-OP with SSO!)

Organization Settings (Org. Admin Only)

Change current organization

# Grafana v3.0 Dashboard Menu



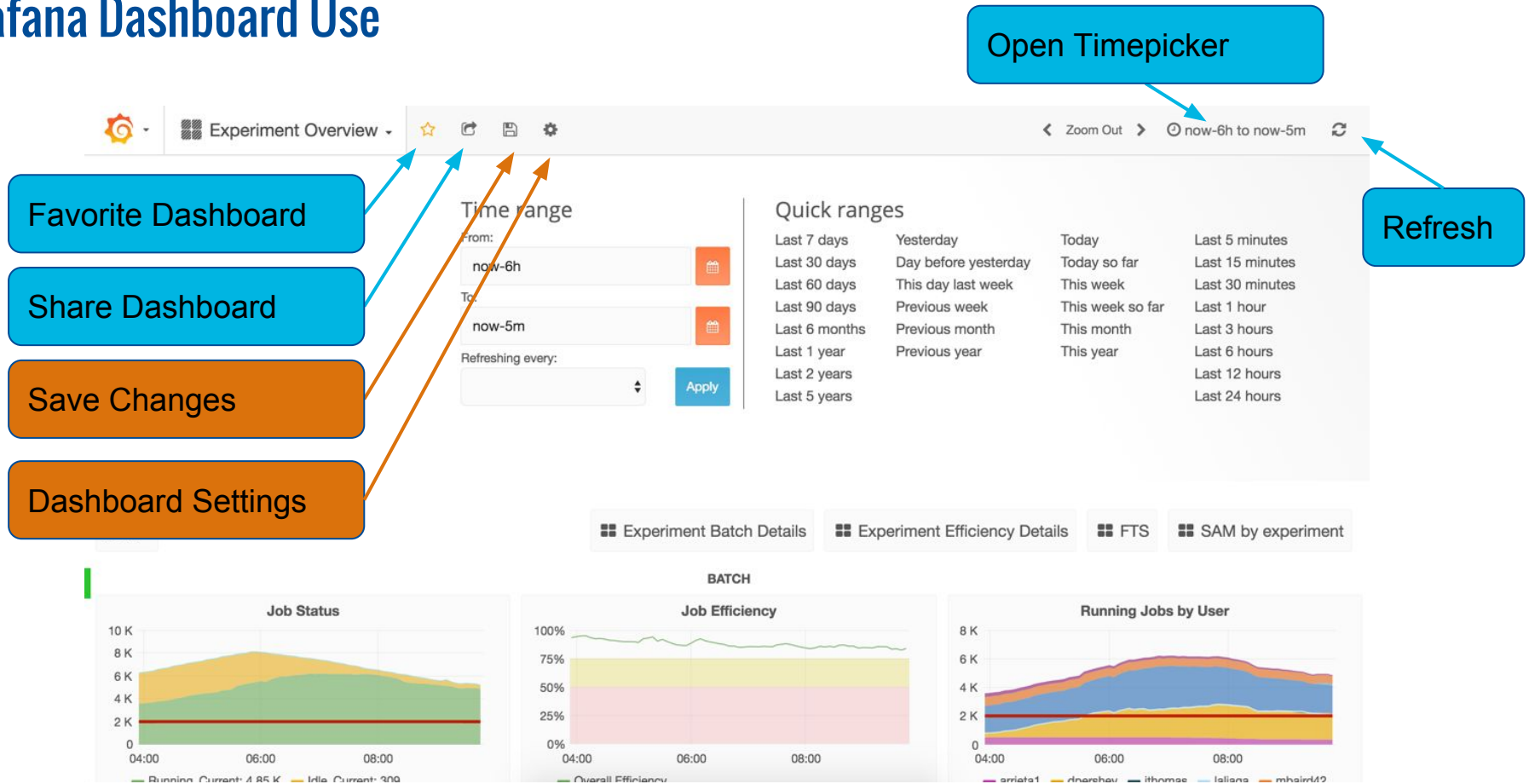

Home page

View/manage playlists

View/manage snapshots

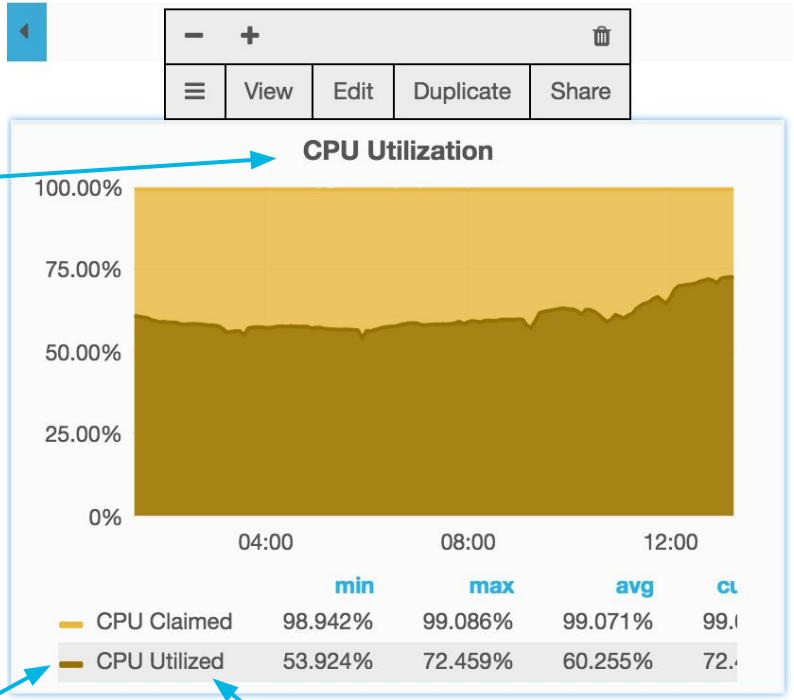
Create new dashboard or import from file

# Grafana Dashboard Use



# Grafana Graph Use

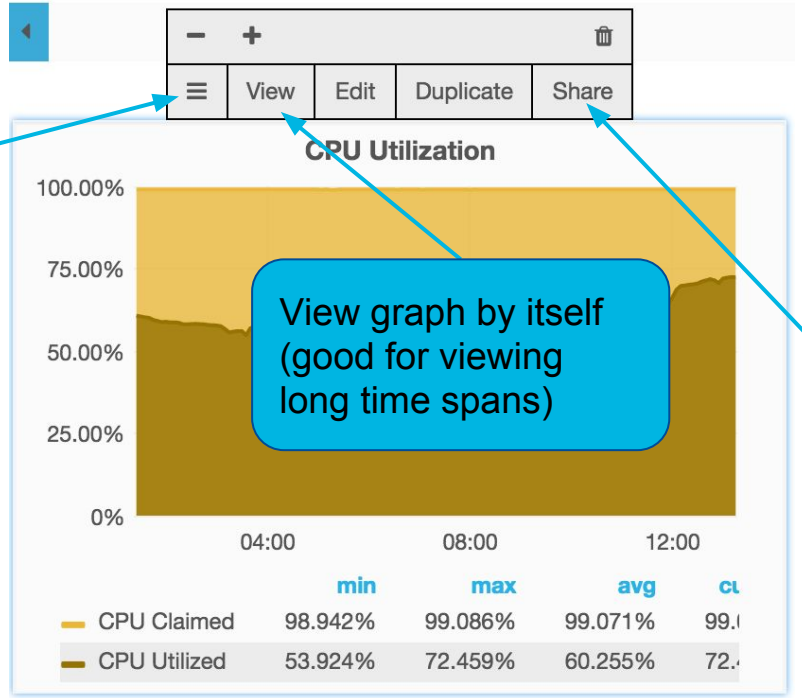
Click title to bring up graph menu




Click legend to change series color.

Click series name to show only that series; shift-click to show/hide multiple series.

# Grafana Graph Menu




Expand menu for more options, including exporting data as CSV.

View graph by itself (good for viewing long time spans)

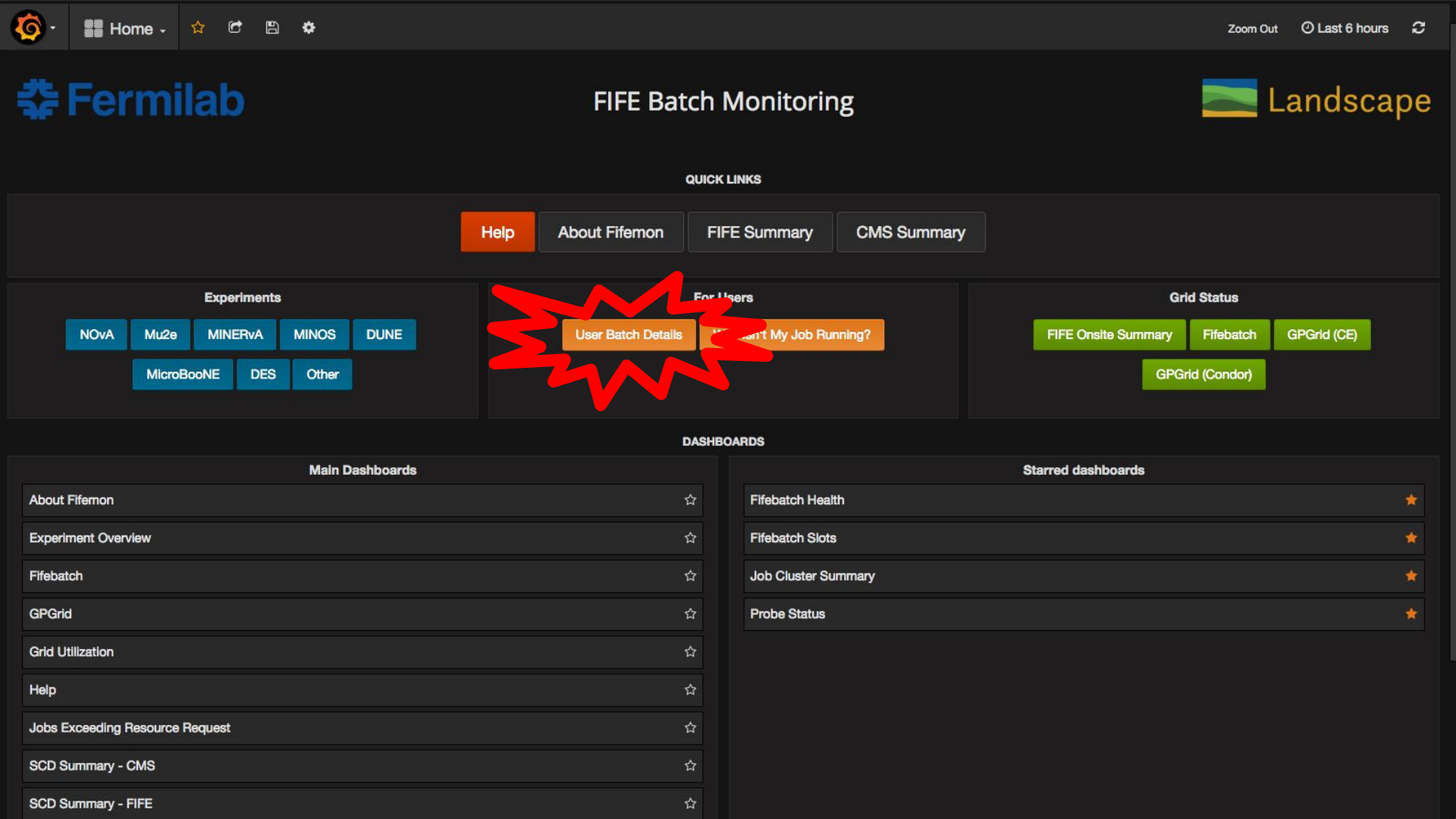
Link to graph by itself (good for highlighting specific data)

# Tutorials

"There's a dashboard for that..."

# User A

"What's the status of my jobs?"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Landscape
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NOvA
Mu2e
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MINOS
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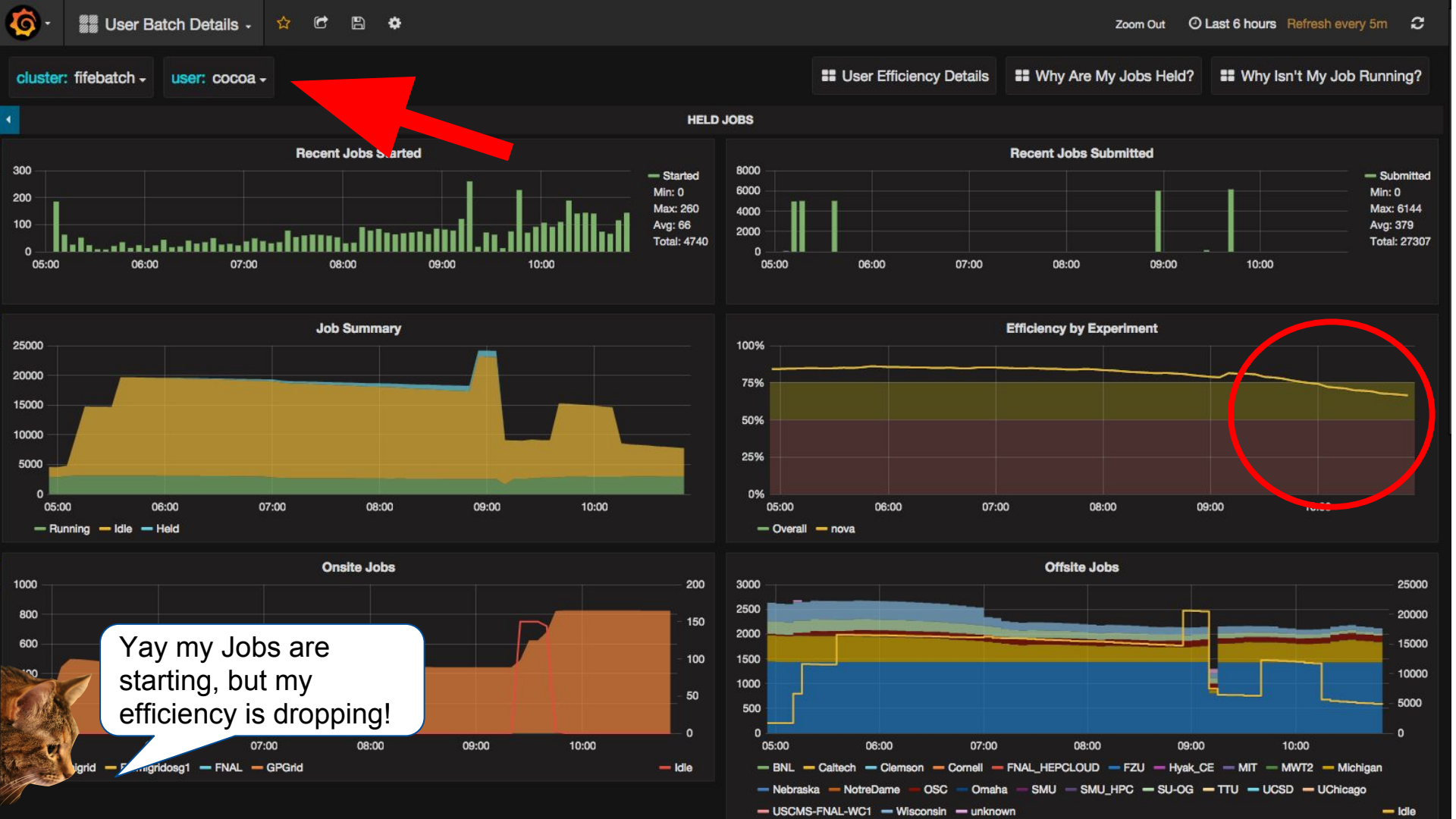
SCD Summary - CMS
SCD Summary - FIFE
Starred dashboards
Fifebatch Health
Fifebatch Slots
Job Cluster Summary
Probe Status


User Batch Details
Zoom Out
Last 6 hours
Refresh every 5m
cluster: fifebatch
user: cocoa
User Efficiency Details
Why Are My Jobs Held?
Why Isn't My Job Running?
HELD JOBS
Recent Jobs Started
Started
Min: 0
Max: 260
Avg: 66
Total: 4740
Recent Jobs Submitted
Submitted
Min: 0
Max: 6144
Avg: 379
Total: 27307
Job Summary
Running
Idle
Held
Efficiency by Experiment
Overall
nova
Onsite Jobs
Yay my Jobs are starting, but my efficiency is dropping!
FNAL
GPGrid
Idle
Offsite Jobs
BNL
Caltech
Clemson
Cornell
FNAL_HEPCLOUD
FZU
Hyak_CE
MIT
MWT2
Michigan
Nebraska
NotreDame
OSC
Omaha
SMU
SMU_HPC
SU-OG
TTU
UCSD
UChicago
USCMS-FNAL-WC1
Wisconsin
unknown
Idle

05:00 06:00 07:00 08:00 09:00 10:00

Fermigrid Fermigridosg1 FNAL GPGrid Idle

05:00 06:00 07:00 08:00 09:00 10:00

BNL Caltech Clemson Cornell FNAL_HEPCLOUD FZU Hyak_CE MIT MWT2 Michigan
Nebraska NotreDame OSC Omaha SMU SMU_HPC SU-OG TTU UCSD UChicago
USCMS-FNAL-WC1 Wisconsin unknown Idle

## Current Jobs

| Cluster | I | R | H | Submit Time/Command | Memory (MB) | Disk (MB) | Time (hr) | Max Eff. | Starts |
|---|---|---|---|---|---|---|---|---|---|
| 7989120 | 7 | 0 | 0 | 2016-03-08T02:22:51.000Z<br>qhuang-qhuang-reco-keepup-Offsite-3000-S16-03-04-neardet-BNB-25_days_ago-20160308_0222.sh_20160308_022251_3281177_0_1_wrap.sh | 0 / 3000 | 0 / 10240 | 0 / 11 | ---- | 0 |
| 7989126 | 7 | 0 | 0 | 2016-03-08T02:23:06.000Z<br>qhuang-qhuang-reco-keepup-Offsite-3000-S16-03-04-neardet-BNB-27_days_ago-20160308_0222.sh_20160308_022305_3282245_0_1_wrap.sh | 0 / 3000 | 0 / 10240 | 0 / 11 | ---- | 0 |
| 7989131 | 7 | 0 | 0 | 2016-03-08T02:23:18.000Z<br>qhuang-qhuang-reco-keepup-Offsite-3000-S16-03-04-neardet-BNB-29_days_ago-20160308_0223.sh_20160308_022318_3283095_0_1_wrap.sh | 0 / 3000 | 0 / 10240 | 0 / 11 | ---- | 0 |
| 7989137 | 7 | 0 | 0 | 2016-03-08T02:23:30.000Z<br>qhuang-qhuang-reco-keepup-Offsite-3000-S16-03-04-neardet-BNB-31_days_ago-20160308_0223.sh_20160308_022329_3284093_0_1_wrap.sh | 0 / 3000 | 0 / 10240 | 0 / 11 | ---- | 0 |
| 7991809 | 0 | 244 | 0 | 2016-03-08T04:58:24.000Z<br>bzamoran-prod_full_chain_R16-03-03-prod2reco.a_ND_numi_epoch3c-20160308_0458.sh_20160308_045824_3734826_0_1_wrap.sh | 1952 / 2000 | 451 / 34180 | 6 / 6 | 62.3% | 2 |
| 7993210 | [illegible]998 | 1719 | 0 | 2016-03-08T08:50:35.000Z<br>tghosh-tghosh_prod_daq_R16-02-11-prod2genie.b_fd_genie_nonswap_fhc_nova_v08_full_batch1_v1_birksmodB-20160308_0850.sh_20160308_085035_4016786_0_1_wrap.sh | 1353 / 2000 | 2178 / 4000 | 2 / 3 | 36.8% | 1 |
| 4937278 | | | | 2016-03-08T09:21:32.000Z<br>[illegible]chain_R16-03-03-prod2reco.a_ND_numi_period1-20160308_0921.sh_20160308_092132_3138891_0_1_wrap.sh | 1925 / 2000 | 114 / 34180 | 1 / 6 | 57.5% | 1 |
| 4937313 | | | | 2016-03-08T09:24:26.000Z<br>[illegible]chain_R16-03-03-prod2reco.a_ND_numi_epoch3b-20160308_0924.sh_20160308_092426_3149550_0_1_wrap.sh | 1929 / 2000 | 79 / 34180 | 1 / 6 | 55.2% | 1 |
| | | | | 2016-03-08T09:37:01.000Z<br>bzamoran-prod_full_chain_R16-03-03-prod2reco.a_ND_numi_period2-20160308_0936.sh_20160308_093701_3191659_0_1_wrap.sh | 1920 / 2000 | 85 / 34180 | 1 / 6 | 53.2% | 1 |

This cluster has poor efficiency, let's take a look at it.

COMPLETED JOBS

RESOUCE GRAPHS

Job Cluster Summary

Zoom Out | Last 24 hours | Refresh every 5m

cluster: 7714932

PAGE HELP

## JOB INFORMATION

| | |
|---|---|
| Job ID: | 7714932.0@fifebatch2.fnal.gov |
| Submit Date: | 2016-02-26T18:09:46 |
| Experiment: | mu2e |
| User: | mu2epro (mu2epro/cron/mu2egpvm01.fnal.gov@FNAL.GOV) |
| Usage Model: | OFFSITE |
| Sites Requested: | BNL,Caltech,FERMIGRID,FNAL,MIT,Michigan,Nebraska,Omaha,SU-OG,Wisconsin,UCSD,NotreDame,MWT2 |

View sandbox files

| Resources Requested | |
|---|---|
| CPU: | 1 |
| Memory: | 3994 MB |
| Disk: | 9216 MB |
| Runtime: | 9 hr |

View available slots

## PROCESS STATUS

| Total Processes | Idle Processes | Running Processes | Held Processes |
|---|---|---|---|
| 9175 | 6065 | 2898 | 4 |

| Failed Processes (nonzero exit code) | Disconnected Processes |
|---|---|
| 26 | 408 |

A few failed processes, and a bunch are disconnected.

## RESOURCES USED

| Max Memory Usage | Max Disk Usage | Max Walltime |
|---|---|---|

| Competed Processes (exit code 0) | Failed Processes (nonzero exit code) | Disconnected Processes |
|---|---|---|
| 1011 | 26 | 408 |

## RESOURCES USED

| Max Memory Usage | Max Disk Usage | Max Walltime |
|---|---|---|
| 1.934 GiB | 7.91 GiB | 11.11 hour |

**Memory Usage**

| Min | Max | Average |
|---|---|---|
| 10.02 MiB | 1.93 GiB | 1.31 GiB |

**Disk Usage**

| Min | Max | Average |
|---|---|---|
| 1.75 GiB | 7.91 GiB | 5.34 GiB |

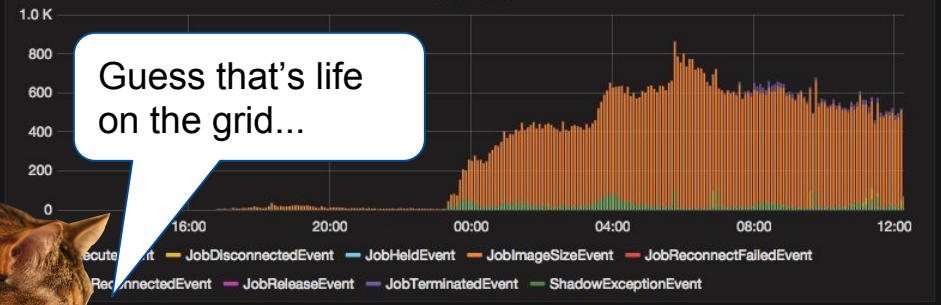
**Walltime**

| Min | Max | Average |
|---|---|---|
| 33.70 min | 11.11 hour | 5.36 hour |

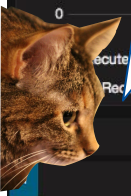
## PROCESS LIST

## CONDOR EVENTS

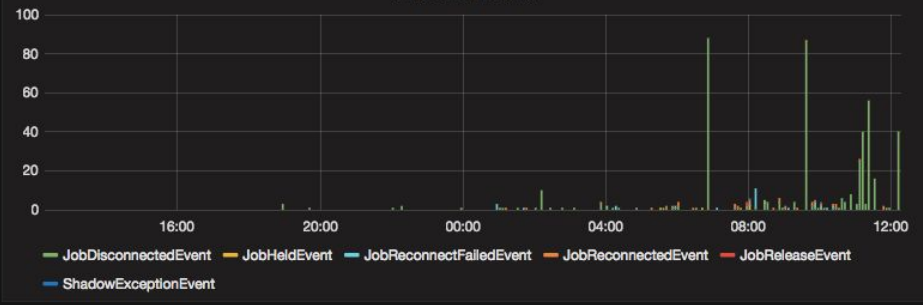
**All Events**




Guess that's life on the grid...



**Abnormal Events**

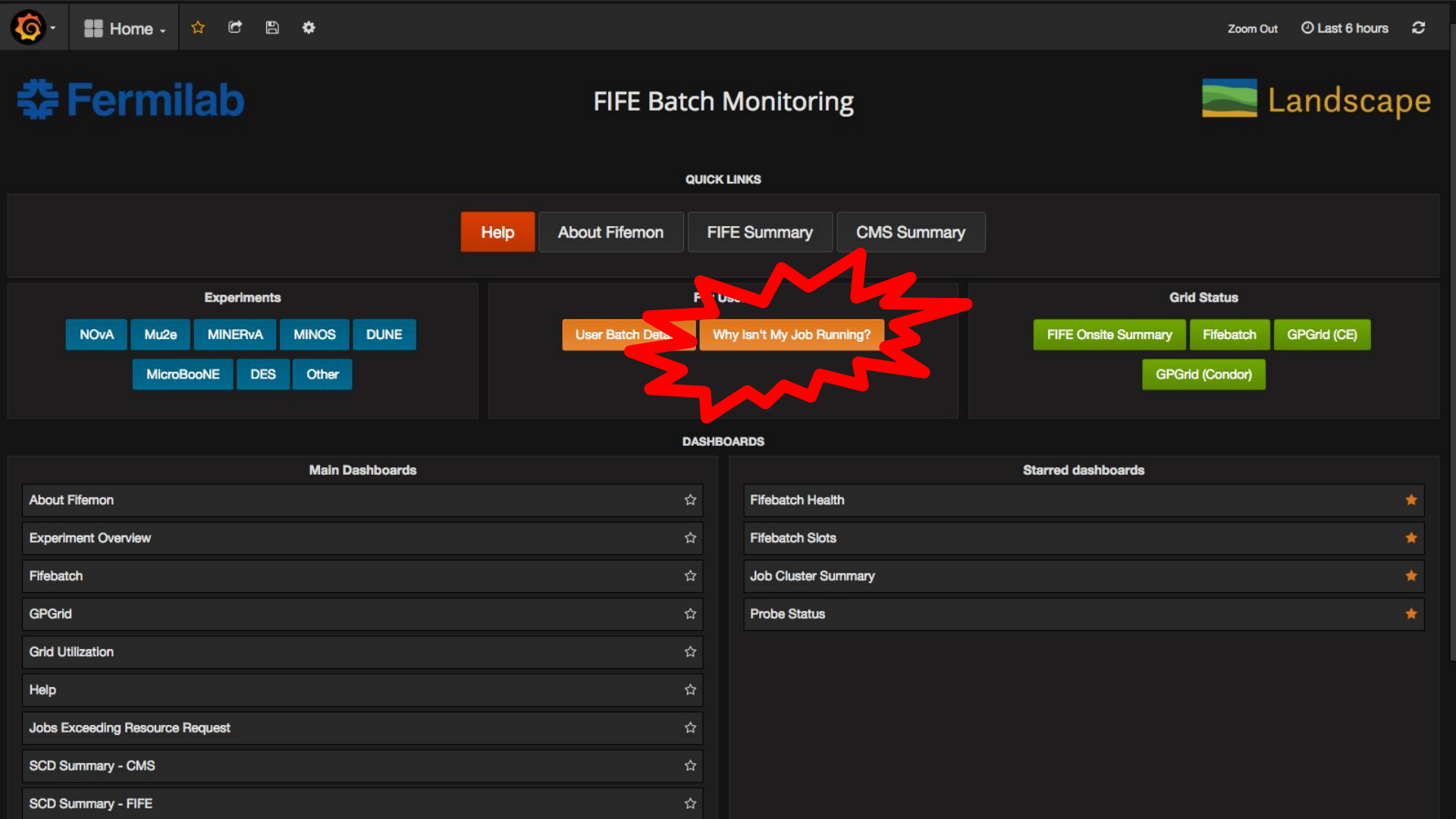



## STATS BY SITE

## JOBSUB

# User B

"Why isn't my job running yet?!"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Mu2e
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SCD Summary - FIFE
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Fifebatch Health
Fifebatch Slots
Job Cluster Summary
Probe Status

Why Isn't My Job Running? ▾ Zoom Out Last 6 hours

Username: peanut ▾ Fifebatch Troubleshooting Guides

## General Tips

### How long ago did you submit your jobs?

It can take several hours (up to a day) for jobs to start, the grid is generally running at full capacity. Remember, the batch system is for large-scale computing. if you need immediate results on a small scale you should be using the interactive nodes provided for your experiment.

### What resources did you request?

If you're not sure, you can see these listed on your User Batch Details page or Job Cluster Summary in the table below (select your username from the dropdown above). If you didn't request any your job got the defaults. Your job will only start in a slot that has at least your requested resources available; the more you request, the fewer slots that will be available.

### What is your usage model?

- DEDICATED or OPPORTUNISTC: your job will run on GPGrid, and how long your job takes to start is dependent on:
  - how many other jobs are vying for slots on GPGrid (take a look at the FIFE Onsite Summary dashboard).
  - how much your experiment is using; your experiment has a quota on GPGrid (visible on the Experiment Overview page), usage over this number is purely opportunistic
  - what resources are available in the remaining slots on GPGrid (see the Fifebatch Slots dashboard)
- OFFSITE: your job will run on the OSG, where availability is opportunistic and highly variable (with some exceptions, e.g. FZU for NOvA).
  - Did you request any specific sites? Some sites have restrictions on resources, runtime, or experiments (see the FIFE wiki for details)
  - take a look at the Fifebatch Slots dashboard to see where we are currently getting slots

## IDLE JOBS

### Idle Jobs

| jobid | Submit Date | Group | CPUs | Memory | Disk | Runtime | Usage Model | Sites |
|---|---|---|---|---|---|---|---|---|
| 4924655.0@fifebatch1.fnal.gov | 2016-03-08 00:17:42 | nova | 1 | 4.88 GiB | 10.00 GiB | 3.00 hour | OFFSITE | Wisconsin |
| 7936096.0@fifebatch2.fnal.gov | 2016-03-07 00:17:26 | nova | 1 | 3.42 GiB | 10.00 GiB | 3.00 hour | OFFSITE | UCSD |
| 4924412.0@fifebatch1.fnal.gov | | | 1 | 3.42 GiB | 10.00 GiB | 3.00 hour | OFFSITE | Caltech |
| 4924398.0@fifebatch1.fnal.gov | | | 1 | 3.42 GiB | 10.00 GiB | 3.00 hour | OFFSITE | BNL |
| | | | 1 | 3.42 GiB | 10.00 GiB | 3.00 hour | OFFSITE | Nebraska |
| | 2016-03-08 00:17:03 | nova | 1 | 3.42 GiB | 10.00 GiB | 3.00 hour | OFFSITE | UCSD |
| | 2016-03-06 00:22:21 | nova | 1 | 3.42 GiB | 10.00 GiB | 3.00 hour | OFFSITE | UCSD |

Job Cluster Summary

Zoom Out | Last 24 hours | Refresh every 5m

cluster: 4924655

PAGE HELP

JOB INFORMATION

| | |
|---|---|
| Job ID: | 4924655.0@fifebatch1.fnal.gov |
| Submit Date: | 2016-03-08T00:17:42 |
| Experiment: | nova |
| User: | novapro (UNKNOWN) |
| Usage Model: | OFFSITE |
| Sites Requested: | Wisconsin |

View sandbox files

Resources Requested

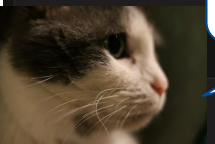
| | |
|---|---|
| CPU: | 1 |
| Memory: | 5000 MB |
| Disk: | 10240 MB |
| Runtime: | 3 hr |

View available slots

PROCESS STATUS

| Total Processes | Idle Processes | Running Processes | Held Processes |
|---|---|---|---|
| 1 | 1 | 0 | 0 |

| Competed Processes (exit code 0) | Failed Processes (nonzero exit code) | Disconnected Processes |
|---|---|---|
| | N/A | N/A |



Are there any slots available?

RESOURCES USED

| Max Memory Usage | Max Disk Usage | Max Walltime |
|---|---|---|

Fifebatch Slots Unclaimed

Zoom Out | Last 5 minutes | Refresh every 5m

cluster: fifebatch | Sites: Wisconsin | Min. Cores: 1 | Min. Memory (MB): 5000 | Min. Time (hr): 3.00 | Available to: nova | Fifebatch

**Unclaimed CPUs**

0

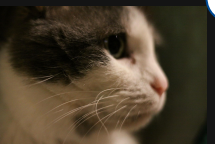
**Claimed CPUs**

0

**Unclaimed by Site**

**Claimed by Site**

There are no Glideins running at Wisconsin with 5GB memory!



Fifebatch Slots Unclaimed

Zoom Out | Last 5 minutes | Refresh every 5m

cluster: fifebatch | Sites: All | Min. Cores: 1 | Min. Memory (MB): 5000 | Min. Time (hr): 3.00 | Available to: nova | Fifebatch

**Unclaimed CPUs**

25

**Claimed CPUs**

134

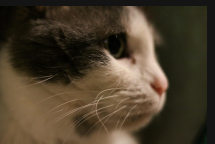
**Unclaimed by Site**

| Site | # Cpus | # Glideins |
|---|---|---|
| GPGrid | 25 | 5 |

**Claimed by Site**

| Site | # Cpus | # Glideins |
|---|---|---|
| GPGrid | 134 | 134 |

Hey, there are some Glideins on GPGrid that could run a job needing 5GB memory! Maybe I should submit there instead.



# Stakeholder

"Is my experiment getting the resources it needs and using them effectively?"

Home

Zoom Out | Last 6 hours

Fermilab

# FIFE Batch Monitoring

Landscape

## QUICK LINKS

Help | About Fifemon | FIFE Summary | CMS Summary

### Experiments

NOvA | [illegible] | MINERvA | MINOS | DUNE | MicroBooNE | DES | Other

### For Users

User Batch Details | Why Isn't My Job Running?

### Grid Status

FIFE Onsite Summary | Fifebatch | GPGrid (CE) | GPGrid (Condor)

## DASHBOARDS

### Main Dashboards

- About Fifemon ☆
- Experiment Overview ☆
- Fifebatch ☆
- GPGrid ☆
- Grid Utilization ☆
- Help ☆
- Jobs Exceeding Resource Request ☆
- SCD Summary - CMS ☆

### Starred dashboards

- Fifebatch Health ★
- Fifebatch Slots ★
- Job Cluster Summary ★
- Probe Status ★

Experiment Overview

Out now-12h to now-5m

nova

Experiment Batch Details | Experiment Efficiency Details | FTS | SAM by experiment

**Job Status**

25 K
20 K
15 K
10 K
5 K
0
00:00 02:00 04:00 06:00 08:00 10:00

Running Current: 5.90 K Idle Current: 17.54 K Held Current: 43 GPGrid Quota Current: 2.00 K

**Job Effi…**

100
75
50
25
00:00 02:00 04:00 06:00 08:00 10:00

Overall Efficiency

**SAM**

**Size of active files catalogued**

4.6221 PiB
4.6212 PiB
4.6203 PiB
4.6194 PiB
4.6185 PiB
4.6176 PiB
4.6168 PiB
4.6159 PiB
300 MBps
250 MBps
200 MBps
150 MBps
100 MBps
50 MBps
0 Bps
00:00 08:00 10:00

Total Rate of change

**Number of files catalogued**

31.56 Mil
31.54 Mil
31.52 Mil
31.50 Mil
31.48 Mil
31.46 Mil
6 Hz
5 Hz
4 Hz
3 Hz
2 Hz
1 Hz
0 Hz
00:00 02:00 04:00 06:00 08:00 10:00

Total Rate of change

We're well above our quota, but efficiency could be better.

**All activity on enstore system stken**

1.3 K

Experiment Efficiency Deta…

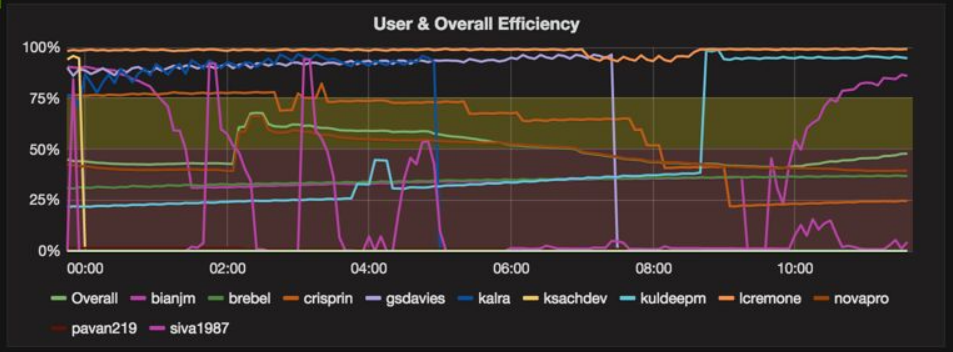
Zoom Out | now-12h to now-5m

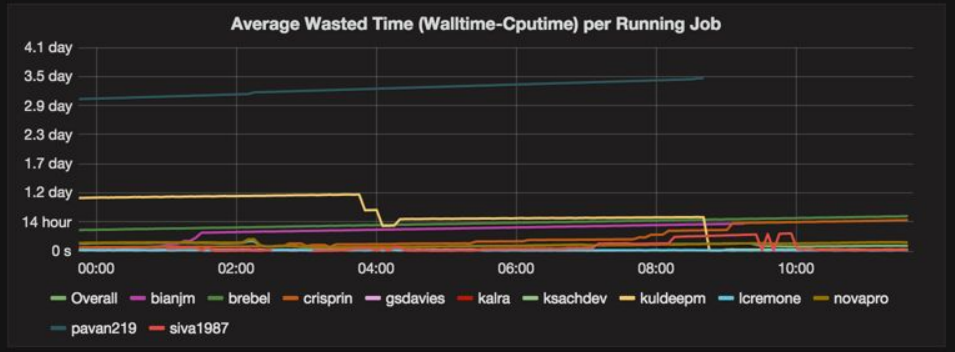
nova | GratiaWeb Efficiency Tre | Experiment Batch Details | Experiment Overview | FTS | SAM by experiment

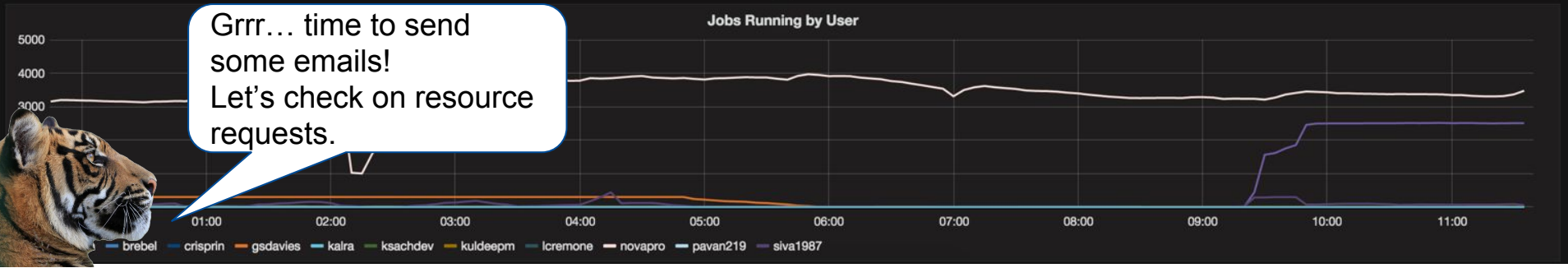
CURRENT

| Overall Efficiency | Onsite Efficiency | Offsite Efficiency |
|---|---|---|
| 48% | 65% | 4.7% |

USER HISTORY




Grrr… time to send some emails!
Let's check on resource requests.

Experiment Batch Details

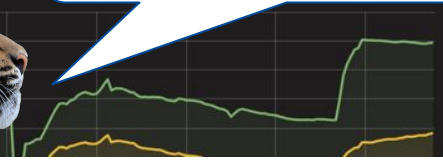
Zoom Out | now-12h to now-5m

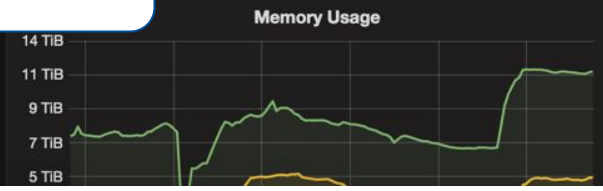
nova | GPGrid Usage | Experiment Efficiency Details | Experiment Overview | FTS | SAM by experiment

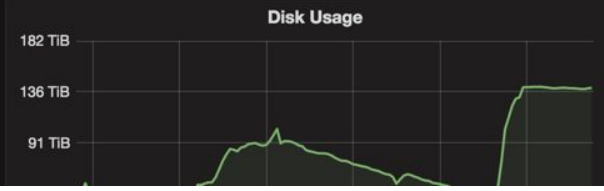
## User Jobs

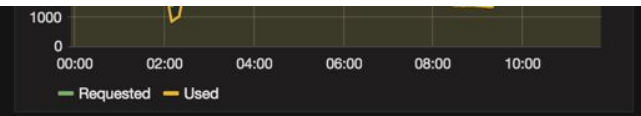
| User | I | R | C | X | H | Max Memory/Request | Max Disk/Request | Max Time/Request |
|---|---|---|---|---|---|---|---|---|
| anorman | 0 | 0 | 0 | 0 | 9 | 0.78 | 0.00 | 0.00 |
| arrieta1 | 100 | 0 | 0 | 0 | 3 | 0.00 | 0.00 | 0.00 |
| bianjm | 825 | 2506 | 0 | 0 | 0 | 0.37 | 0.00 | 0.73 |
| boyd | 50 | 0 | 0 | 0 | 0 | 0.00 | 0.16 | 0.00 |
| brebel | 0 | 1 | 0 | 0 | 0 | 0.00 | 0.00 | 3.27 |
| crisprin | 0 | 3 | 0 | 0 | 0 | 0.01 | 0.00 | 8.55 |
| dmendez | 0 | 0 | 0 | 0 | 6 | 1.00 | 0.01 | 0.00 |
| kherner | 4 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| kretzke | 1 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| kuldeepm | 0 | 10 | 0 | 0 | 0 | 0.34 | 0.00 | 6.07 |
| lcremone | 0 | 2 | 0 | 0 | 0 | 0.29 | 0.13 | 5.54 |
| novapro | 22154 | 3464 | 0 | 0 | 14 | 1.05 | 1.01 | 12.04 |
| pavan219 | | | | 0 | 11 | 0.95 | 0.11 | 0.00 |
| siva1987 | | | | 0 | 0 | 0.66 | 0.00 | 3.39 |

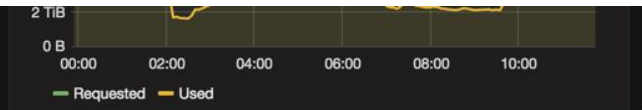
Disk and Memory requests look good, lots of users exceeding request time though.

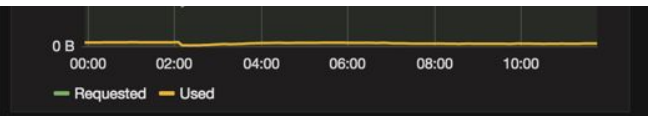


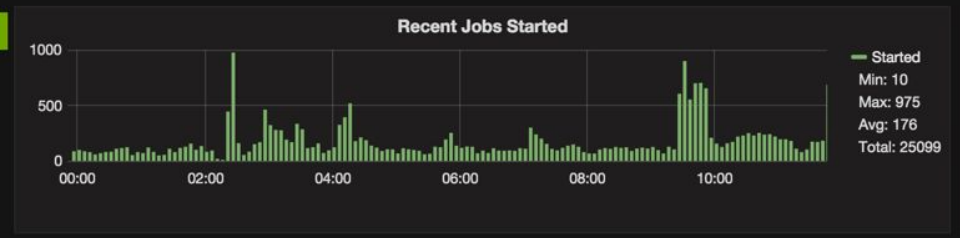


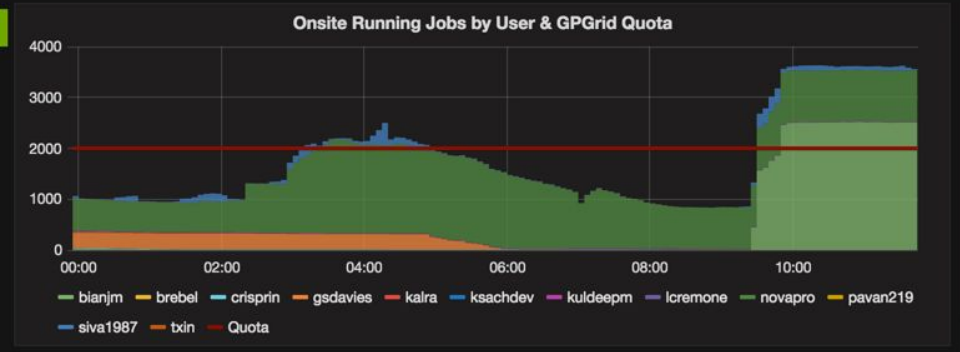

1000
0
00:00
02:00
04:00
06:00
08:00
10:00
Requested
Used

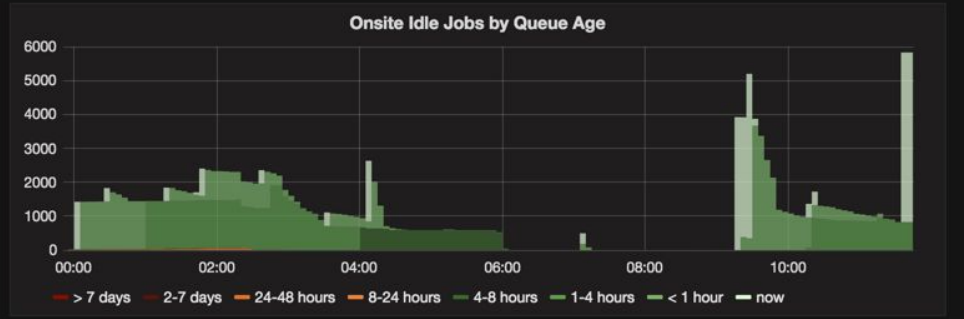

2 TiB
0 B
00:00
02:00
04:00
06:00
08:00
10:00
Requested
Used

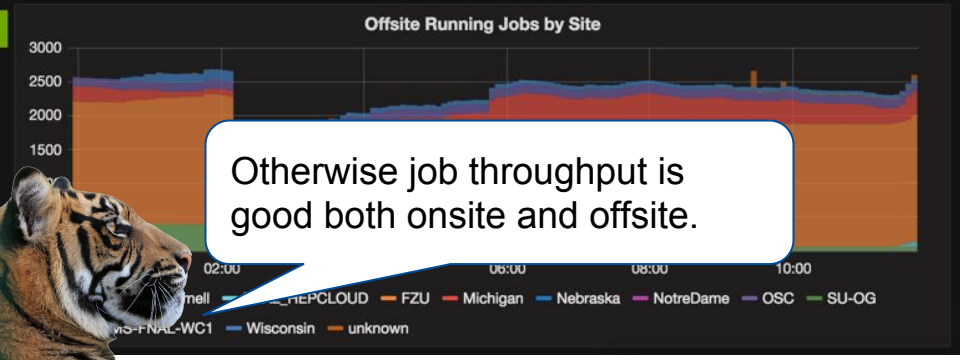

0 B
00:00
02:00
04:00
06:00
08:00
10:00
Requested
Used

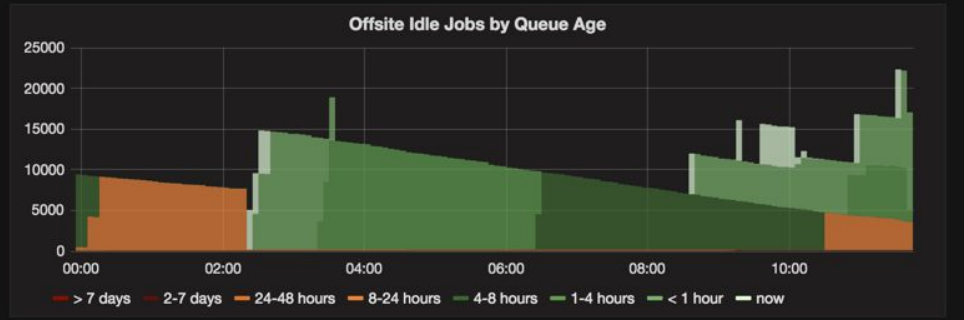

Recent Jobs Started
1000
500
0
00:00
02:00
04:00
06:00
08:00
10:00
Started
Min: 10
Max: 975
Avg: 176
Total: 25099


Recent Jobs Submitted
8000
6000
4000
2000
0
00:00
02:00
04:00
06:00
08:00
10:00
Submitted
Min: 0
Max: 6000
Avg: 542
Total: 77569


Onsite Running Jobs by User & GPGrid Quota
4000
3000
2000
1000
0
00:00
02:00
04:00
06:00
08:00
10:00
bianjm
brebel
crisprin
gsdavies
kalra
ksachdev
kuldeepm
lcremone
novapro
pavan219
siva1987
txin
Quota

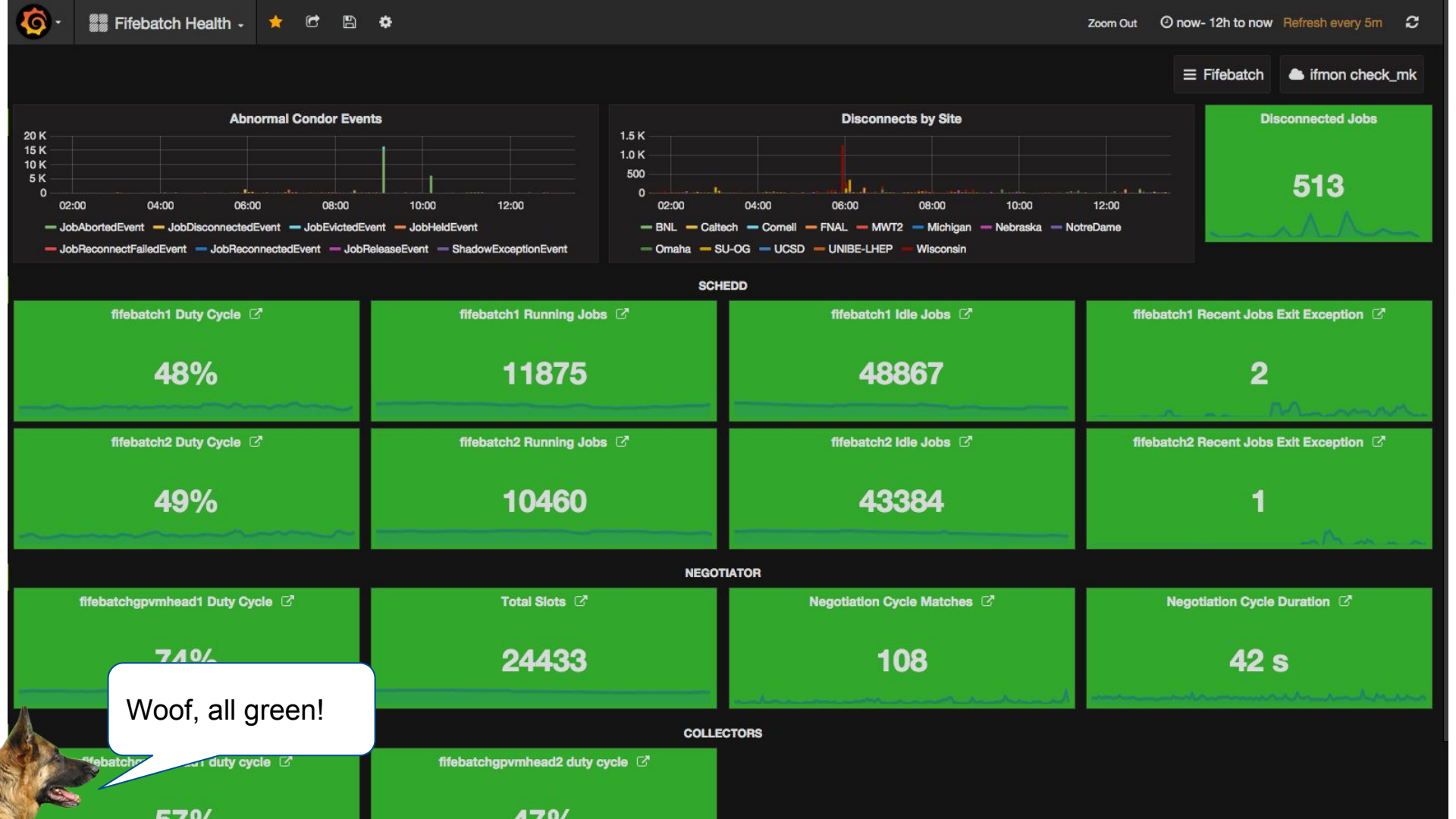

Onsite Idle Jobs by Queue Age
6000
5000
4000
3000
2000
1000
0
00:00
02:00
04:00
06:00
08:00
10:00
> 7 days
2-7 days
24-48 hours
8-24 hours
4-8 hours
1-4 hours
< 1 hour
now


Offsite Running Jobs by Site
3000
2500
2000
1500
02:00
06:00
08:00
10:00
FZU
Michigan
Nebraska
NotreDame
OSC
SU-OG
Wisconsin
unknown
Otherwise job throughput is good both onsite and offsite.


Offsite Idle Jobs by Queue Age
25000
20000
15000
10000
5000
0
00:00
02:00
04:00
06:00
08:00
10:00
> 7 days
2-7 days
24-48 hours
8-24 hours
4-8 hours
1-4 hours
< 1 hour
now

# Grid Admin

"Is the batch system healthy?"


Fifebatch Health
Zoom Out
now- 12h to now
Refresh every 5m
Fifebatch
ifmon check_mk
Abnormal Condor Events
20 K
15 K
10 K
5 K
0
02:00
04:00
06:00
08:00
10:00
12:00
JobAbortedEvent
JobDisconnectedEvent
JobEvictedEvent
JobHeldEvent
JobReconnectFailedEvent
JobReconnectedEvent
JobReleaseEvent
ShadowExceptionEvent
Disconnects by Site
1.5 K
1.0 K
500
0
02:00
04:00
06:00
08:00
10:00
12:00
BNL
Caltech
Cornell
FNAL
MWT2
Michigan
Nebraska
NotreDame
Omaha
SU-OG
UCSD
UNIBE-LHEP
Wisconsin
Disconnected Jobs
513
SCHEDD
fifebatch1 Duty Cycle
48%
fifebatch1 Running Jobs
11875
fifebatch1 Idle Jobs
48867
fifebatch1 Recent Jobs Exit Exception
2
fifebatch2 Duty Cycle
49%
fifebatch2 Running Jobs
10460
fifebatch2 Idle Jobs
43384
fifebatch2 Recent Jobs Exit Exception
1
NEGOTIATOR
fifebatchgpvmhead1 Duty Cycle
Total Slots
24433
Negotiation Cycle Matches
108
Negotiation Cycle Duration
42 s
COLLECTORS
fifebatchgpvmhead2 duty cycle
Woof, all green!

Fifebatch

Zoom Out | now-6h to now-5m | Refresh every 5m

cluster: fifebatch

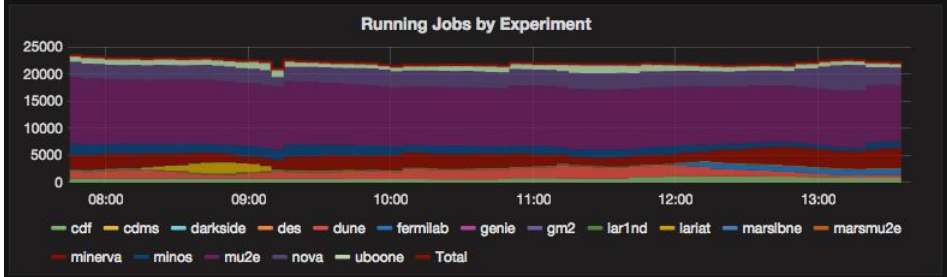
Fifebatch

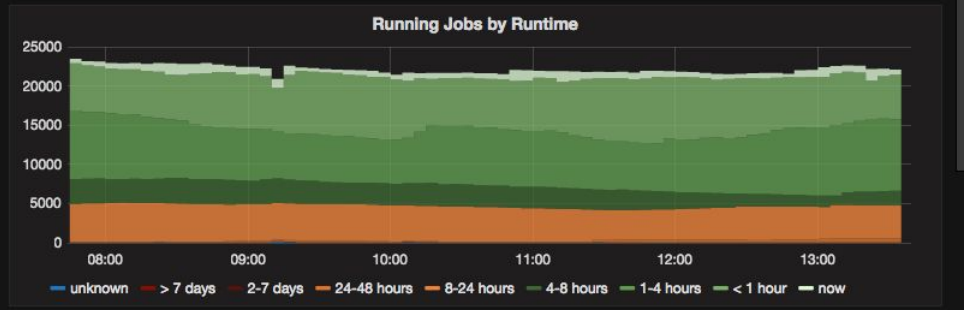
## CURRENT JOB STATUS

| Total | Running | Idle | Held |
|---|---|---|---|
| 116018 | 21974 | 91392 | 2652 |

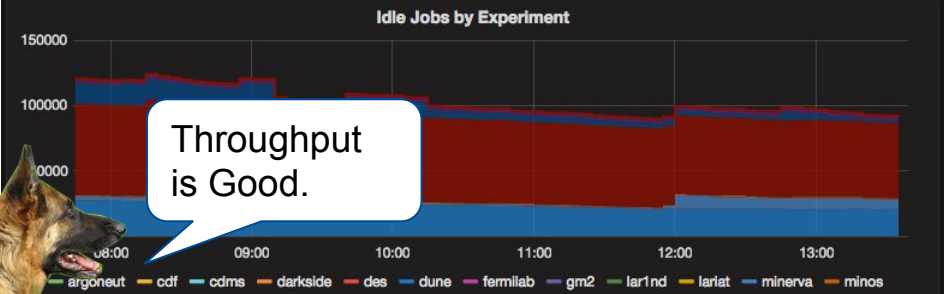
## RESOURCE UTILIZATION

### RUNNING JOBS



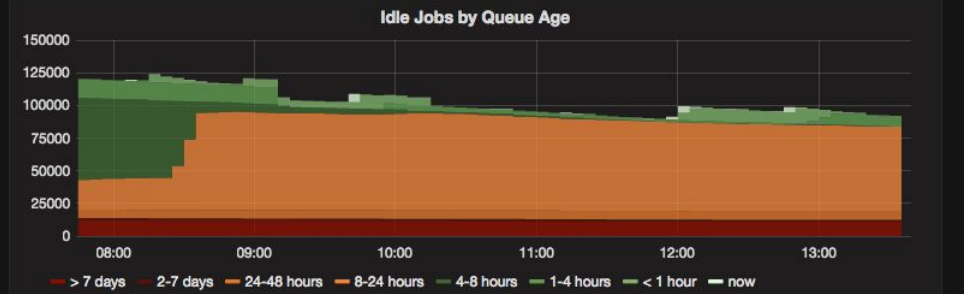




### IDLE JOBS






Throughput is Good.



Grid Utilization

Zoom Out | now-6h to now-5m

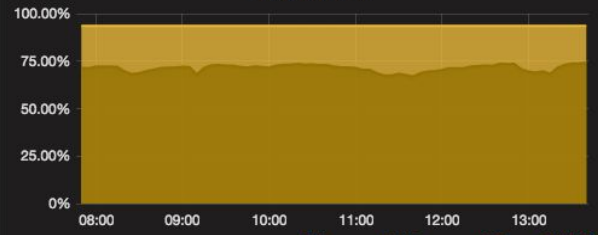
Grid: gpgrid

FIFE Onsite Summary | GPGrid | GPGrid Group | Why Are There Unused Slots on GPGrid?

## PAGE HELP

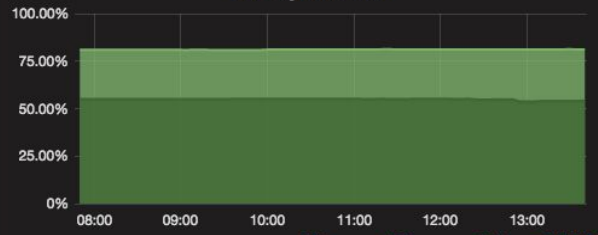
## RELATIVE UTILIZATION

### CPU Utilization



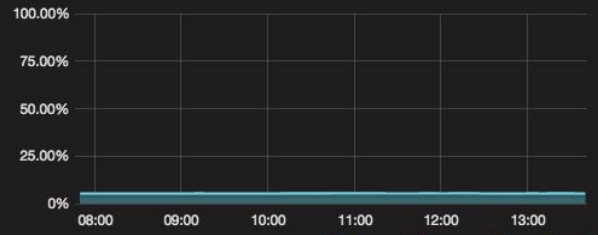

| | min | max | avg | current |
|---|---|---|---|---|
| CPU Claimed | 93.488% | 93.622% | 93.549% | 93.580% |
| CPU Utilized | 66.928% | 74.206% | 71.271% | 74.206% |

### Memory Utilization




| | min | max | avg | current |
|---|---|---|---|---|
| Memory Claimed | 80.853% | 81.224% | 81.063% | 81.180% |
| Memory Utilized | 53.703% | 55.235% | 54.930% | 54.102% |

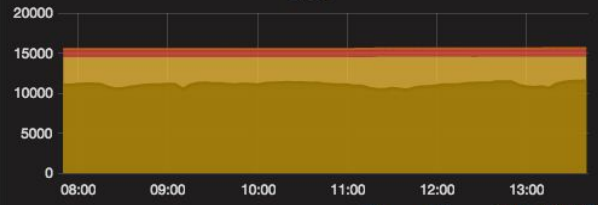
### Disk Utilization




| | min | max | avg | current |
|---|---|---|---|---|
| Disk Claimed | 5.301% | 5.438% | 5.386% | 5.415% |
| Disk Utilized | 3.938% | 4.053% | 3.990% | 3.954% |

## ABSOLUTE UTILIZATION

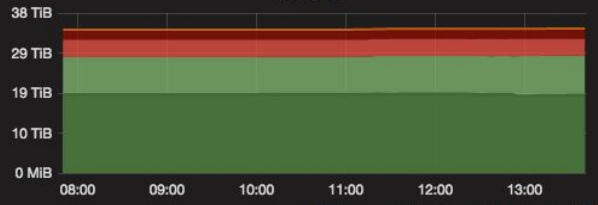
### CPU




| | min | max | avg | current |
|---|---|---|---|---|
| Claimed | | | 14521 | 14606 |
| Unclaimed | | | 1001 | 1002 |
| Unusable | | | 0 | 0 |
| Total | | | 15523 | 15608 |
| | | | 11063 | 11582 |

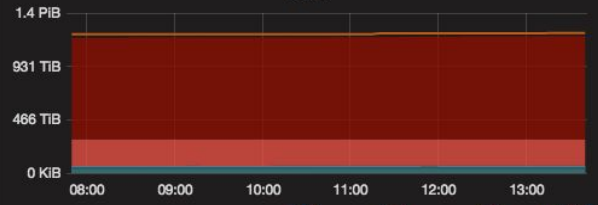
Grid utilization is OK.

### Memory




| | min | max | avg | current |
|---|---|---|---|---|
| Claimed | 27.6 TiB | 28.0 TiB | 27.8 TiB | 27.9 TiB |
| Unclaimed | 4.1 TiB | 4.2 TiB | 4.1 TiB | 4.1 TiB |
| Unusable | 2.3 TiB | 2.4 TiB | 2.3 TiB | 2.4 TiB |
| Total | 34.1 TiB | 34.4 TiB | 34.2 TiB | 34.4 TiB |
| Effective | 18.4 TiB | 18.9 TiB | 18.8 TiB | 18.6 TiB |

### Disk




| | min | max | avg | current |
|---|---|---|---|---|
| Claimed | 63 TiB | 65 TiB | 64 TiB | 65 TiB |
| Unclaimed | 230 TiB | 232 TiB | 231 TiB | 230 TiB |
| Unusable | 887 TiB | 901 TiB | 892 TiB | 900 TiB |
| Total | 1.184 PiB | 1.193 PiB | 1.187 PiB | 1.193 PiB |
| Effective | 47 TiB | 48 TiB | 47 TiB | 47 TiB |

## GROUP UTILIZATION

Why Are There Unused Slo...

Zoom Out | now-6h to now-5m

GPGrid | Troubleshooting Guides

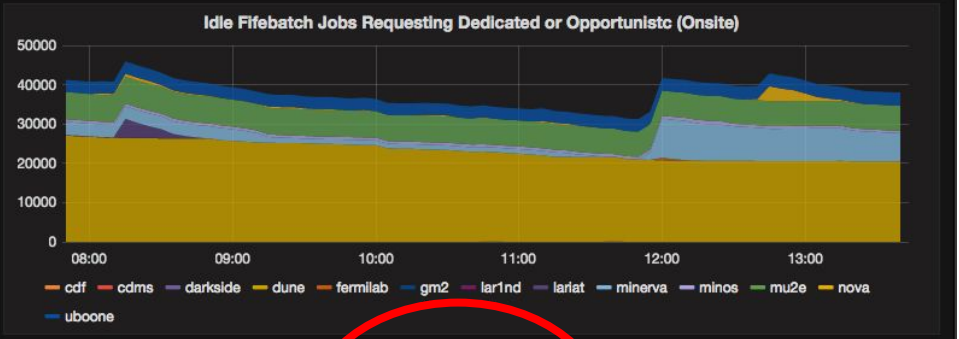
PAGE HELP

## Are there FIFE jobs requesting onsite resources?

If jobs are requesting only OFFSITE, they will not run on GPGrid, unless they come back through the OSG opportunistic gatekeeper.

See also:

FIFE Onsite Summary | Fifebatch - Onsite

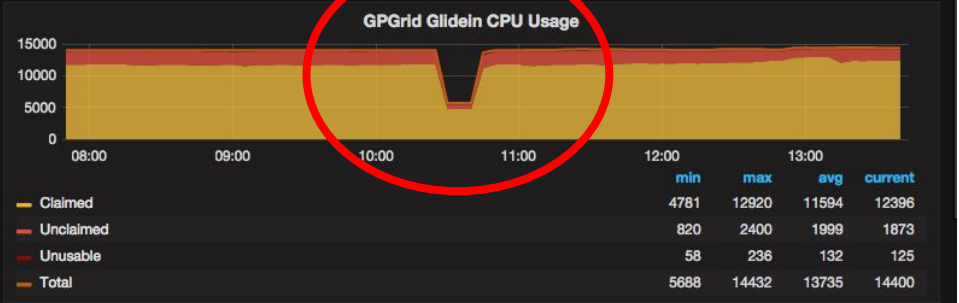



## Are the remaining resources in the Glideins "unusable"?

If there are lots of mulitcore or high-memory (>2 GB) jobs running there will be unusable resources left in the glideins.

See also:

Grid Utilization (GPGrid CE) | Fifebatch Slots (GPGrid)




## Are the rema... job resource requests?

"Unusable" abov... s requesting resources within the limits of ...hat's remaining ...

...so:

...h Slots (G...) | Fifebatch Slots Unclaimed (GPGrid)

Let's check anyways… what happened here?

Slots with remaining resources exceeding JobSub defaults

100

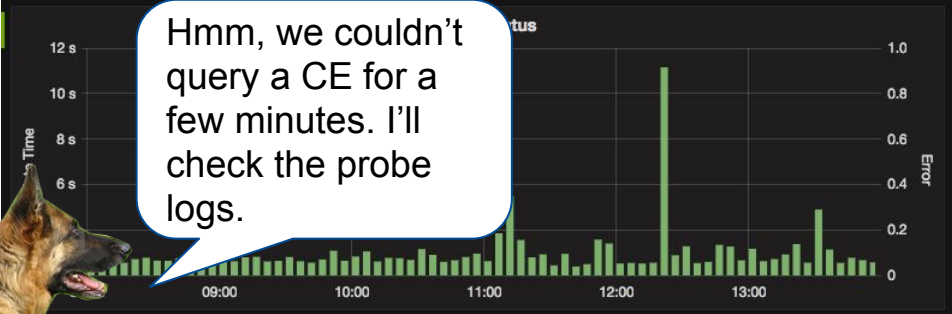
Probe Status - Dev

Zoom Out | Last 6 hours

probe: gpce01_status + gpce02_status

**Update Time**

| Metric | Min | Max | Avg | Current |
|---|---|---|---|---|
| awsmonitor | - | - | - | - |
| cmssrv14_status | 1.61 s | 8.98 s | 2.05 s | 1.84 s |
| cmssrv274_status | 0.32 s | 1.02 s | 0.39 s | 0.38 s |
| cmssrv39_status | 0.86 s | 2.34 s | 1.40 s | 1.37 s |
| condor_pool_jobs | - | - | - | - |
| fifebatch-pp_status | 1.18 s | 11.11 s | 1.71 s | 1.26 s |
| fifebatch2_status | 3.90 min | 5.89 min | 4.77 min | 3.93 min |
| fifebatch_status | 4.07 min | 5.72 min | 4.73 min | 4.28 min |
| fnpccm1_status | - | - | - | - |
| gpce01_status | 2.38 s | 11.15 s | 3.01 s | 2.57 s |
| gpce02_status | 3.24 s | 9.05 s | 3.79 s | 3.34 s |
| gpcollector01_status | 1.99 s | 2.04 min | 25.28 s | 2.42 s |
| gpgrid | - | - | - | - |




Hmm, we couldn't query a CE for a few minutes. I'll check the probe logs.