

CompHEP Group Report

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Task 4: Modify execution points to limit the amount of CPUS and/or RAM that users can request

Config for Execution Point

- Each EP made several slots with only 1 allocated CPU
- Different amounts of allocated memory (so we could see it update successfully)
- Didn't have time to fiddle with preemption and other control parameters

Name	OpSys	Arch	State	Activity	LoadAv	Mem	ActvtyTime
slot1@ericle	LINUX	X86_64	Unclaimed	Idle	0.000	1024	0+00:12:31
slot1@lgrossma	LINUX	X86_64	Unclaimed	Idle	0.000	16384	0+00:00:00
slot2@lgrossma	LINUX	X86_64	Unclaimed	Idle	0.000	16384	0+00:00:20
slot3@lgrossma	LINUX	X86_64	Unclaimed	Idle	0.000	16384	0+00:00:20
slot4@lgrossma	LINUX	X86_64	Unclaimed	Idle	0.000	16384	0+00:00:20
slot5@lgrossma	LINUX	X86_64	Unclaimed	Idle	0.000	16384	0+00:00:20
slot6@lgrossma	LINUX	X86_64	Unclaimed	Idle	0.000	16384	0+00:00:20
slot7@lgrossma	LINUX	X86_64	Unclaimed	Idle	0.000	16384	0+00:00:20
slot8@lgrossma	LINUX	X86_64	Unclaimed	Idle	0.000	16384	0+00:00:20
slot9@lgrossma	LINUX	X86_64	Unclaimed	Idle	0.000	16384	0+00:00:20
slot10@lgrossma	LINUX	X86_64	Unclaimed	Idle	0.000	16384	0+00:00:20

```
CONDOR_HOST = lverace
COLLECTOR_NAME = ExecutionPoint0
DAEMON_LIST = MASTER, STARTD

ALLOW_READ = */*
ALLOW_WRITE = */*
ALLOW_DAEMON = */*

SEC_DEFAULT_AUTHENTICATION_METHODS = TOKEN, FS
SEC_CLIENT_AUTHENTICATION_METHODS = TOKEN, FS
SEC_DEFAULT_ENCRYPTION = REQUIRED
SEC_DEFAULT_INTEGRITY = REQUIRED
SEC_DEFAULT_AUTHENTICATION = REQUIRED

SEC_TOKEN_DIRECTORY = /etc/condor/tokens.d

SLOT_TYPE_1 = cpus=1, mem=1024
NUM_SLOTS_TYPE_1 = 1
```

We tested that this limit works

Requesting 1 core: job runs!

```
[root@skwan test-submit-command]# cat test2.sub
#####
#
# Example submit file for vanilla job
#
#####

Universe      = vanilla
Executable    = hello_world2.sh

RequestCpus = 1

input  = /dev/null
output = hello2.out
error  = hello2.error

queue
```

Requesting 2 cores: permanently idle job

```
[root@skwan test-submit-command]# cat test.sub
#####
#
# Example submit file for vanilla job
#
#####

Universe      = vanilla
Executable    = hello_world.sh

RequestCpus = 2

input  = /dev/null
output = hello.out
error  = hello.error

queue
```

Task 3: Set up multiple accounting groups and define different quotas and priorities for each

Accounting Groups Setup

- Created two accounting groups in the central manager config: ATLAS & CMS
- CMS owns 8 slots, ATLAS owns 3

```
DAEMON_LIST = MASTER, COLLECTOR, NEGOTIATOR
COLLECTOR_HOST = lverace
ALLOW_READ = */*
ALLOW_WRITE = */*
ALLOW_DAEMON = */*
GROUP_NAMES = atlas, cms
GROUP_QUOTA_atlas = 3
GROUP_QUOTA_cms = 8
```

```
[root@lverace config.d]# condor_userprio -quotas
Last Priority Update: 5/24 14:42
Group          Effective  Config    Use    Subtree  Weighted
Name           Quota     Quota     Surplus Quota    Requested
-----
<none>         0.00      0.00     yes    11.00    0
atlas          25.00     25.00    no     25.00    0
cms            75.00     75.00    no     75.00    1
-----
Number of users: 4                               ByQuota
```

Task 3: accounting_group = atlas works!

```
#####  
#  
# Example submit file for vanilla job  
#  
#####  
  
Universe      = vanilla  
Executable    = hello_world.sh  
  
RequestCpus = 1  
  
accounting_group = atlas  
# accounting_group_user = condor@skwan  
  
input  = /dev/null  
output = hello5.out  
error  = hello5.error  
  
queue
```

- works: accounting_group
- didn't work yet:
accounting_group_user

Job runs!

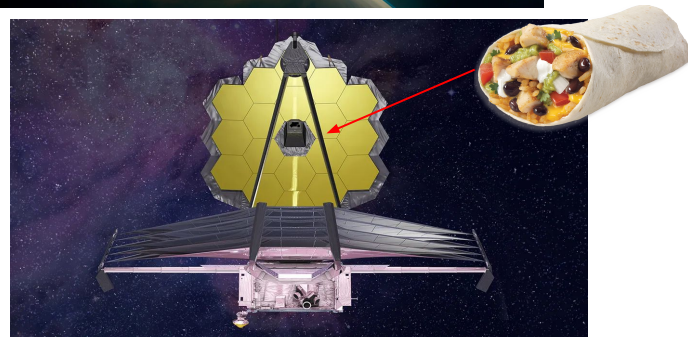
Headlines

NASA James Webb Space Telescope taken out by Hubble in what scientists call “a fit of jealousy”

“We don’t know how Hubble managed to reconfigure itself to become a giant laser or where the electric power came from,” engineers say

JWST Mirrors Permanently Damaged by Impact from “Burrito-Shaped” Meteor

High-speed collision with cylindrical meteor fragment shatters 3 of the telescope’s beryllium mirrors



Thank you for your time & attention!