James Webb Telescope BREAKING NEWS

Sensational James Webb News

“James Webb finds two black holes are in love”

“NASA’s Webb finds the afterlife”

“Shocking James Webb Discoveries suggest Next US Military Acquisition”

- *James Webb Telescope reveals images of materials highly sought after by the US Military, sparking controversy amongst scientists and citizens alike*

“Puffy Images of Alien Life suggest Earth is in imminent danger - and here’s why that’s a good thing”

- *Scientific American: “Long anticipated James Webb telescope detects hints of lactase in Moon’s atmosphere”*
- *New York Times: “State of the art space telescope detects hints of cheese on the Moon”*

“Life found in Galaxy Far Far Away, named Midichlorians”

“Did the James Webb telescope 'break the universe'? Maybe not”

HTCondor Lessons Learned

Project Description and Approach

“Modify execution points to limit the amount of CPUS and/or RAM that users can request.”

- Job limiting done with “PREEMPT” configuration in config.d file on the execution point
- Set PREEMPT = (condition that, when true, rejects the job)
- Slots divide each execution points resources
    - Not strictly necessary for this project!

Execute Point config.d file

```
DAEMON_LIST = STARTD
COLLECTOR_HOST = alexrahe
ALLOW_READ = */*
ALLOW_WRITE = */*
ALLOW_DAEMON = */*
NUM_SLOTS = 4
SLOT_TYPE_1 = 100%
SLOT_TYPE_1_PARTITIONABLE = TRUE
NUM_SLOTS_TYPE_1 = 4
PREEMPT = (RequestCpus > 1) || (RequestMemory > 2000)
```

Did it work?

Yes!

When we submitted jobs that request 1 CPU and less than 2000 memory, they ran successfully. When we submitted jobs with more than 1 CPU or more than 2000 memory, they were sent to idle and did not run.

Additional Things to try

- Add user groups to specify users who have access to more/less computing resources
- Cat and mouse: have one server administrator try to “break” the cluster (overwhelm the cluster, trying to use more resources than registered for any user group) and another administrator trying to fix the loopholes found.