

Issue for Memory Usage

<https://github.com/JeffersonLab/hps-java/issues/686>

Test 1

<execute>

<!-- SLiC Data Readout Drivers -->

<driver name="EcalHitsOutputDriver"/>

<!-- Trigger Simulation -->

<driver name="PulseTrigger"/>

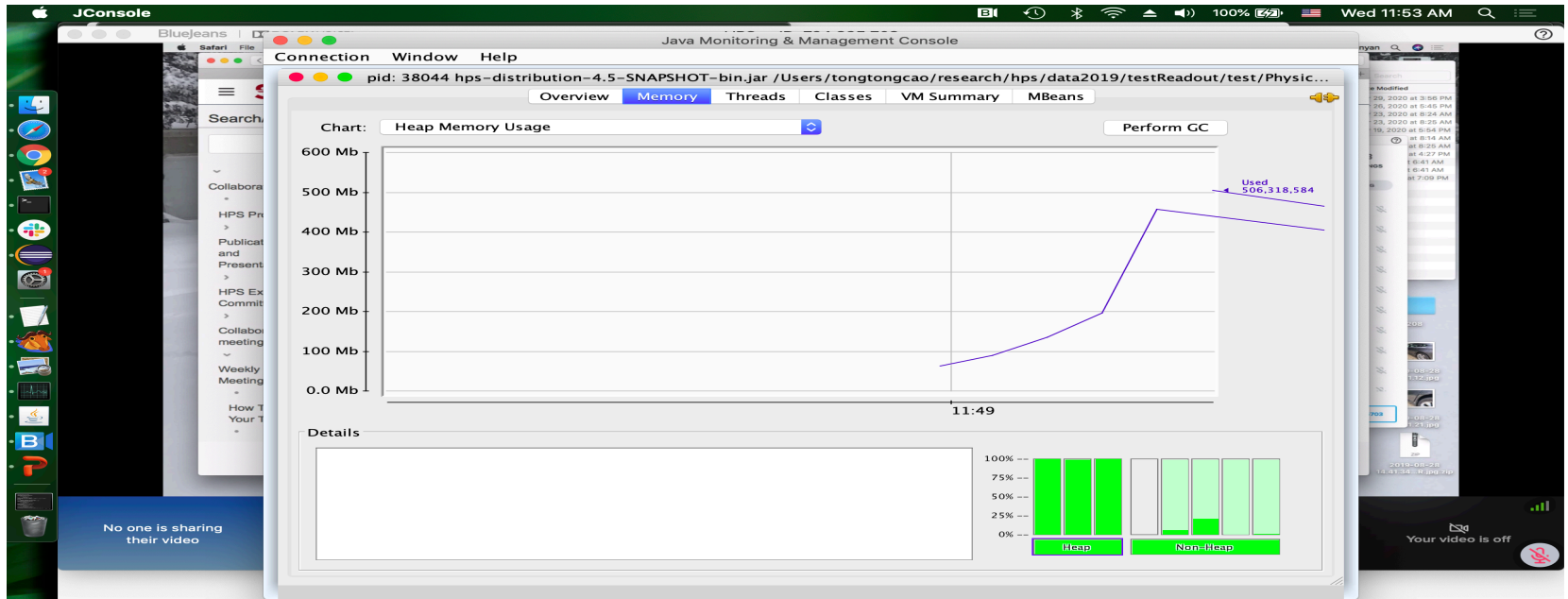
-Xmx500m

<!-- LCIO Output and Data Management Driver -->

<driver name="ReadoutManagerDriver"/>

<driver name="CleanupDriver" />

</execute>



Test 2

Fully readout chain with pulse trigger; Xmx8000m

The screenshot displays the Java Monitoring & Management Console (JConsole) interface. The main window shows the 'Memory' tab with a 'Heap Memory Usage' chart. The chart plots memory usage in Gb over time, showing a steady increase from approximately 0.5 Gb at 12:10 to 7.5 Gb at 12:15. Below the chart, the 'Details' section provides the following information:

- Time:** 2020-04-01 12:28:05
- Used:** 6,470,042 kbytes
- Committed:** 7,918,976 kbytes
- Max:** 7,918,976 kbytes
- GC time:** 40.929 seconds on Copy (126 collections)
12 minutes on MarkSweepCompact (18 collections)

To the right of the details, a bar chart shows the percentage of memory used by the 'Heap' and 'Non-Heap' spaces. The 'Heap' space is consistently at 100%, while the 'Non-Heap' space is at approximately 25%.

The background shows a terminal window with the following output:

```
Last login: Wed Apr 1 12:28:05 2020
tongtongcao@tongtong:~$ java -Xmx8000m -jar hps-distribution-4.5-SNAPSHOT-bin.jar -r /org/hps/steering/readout/PhysicsRun2019TrigPulse.lcsim -i merg...
(pid) 38246 hps-distribution-4.5-SNAPSHOT-bin.jar -r /org/hps/steering/readout/PhysicsRun2019TrigPulse.lcsim -i merg...
Last login: Wed Apr 1 12:28:05 2020
tongtongcao@tongtong:~$
```

Test 3

<execute>

<!-- SLiC Data Readout Drivers -->

<driver name="EcalHitsOutputDriver"/>

<!-- Trigger Simulation -->

<driver name="PulseTrigger"/>

<!-- LCIO Output and Data Management Driver -->

<driver name="ReadoutManagerDriver"/>

<driver name="CleanupDriver" />

</execute>

-Xmx8000m

