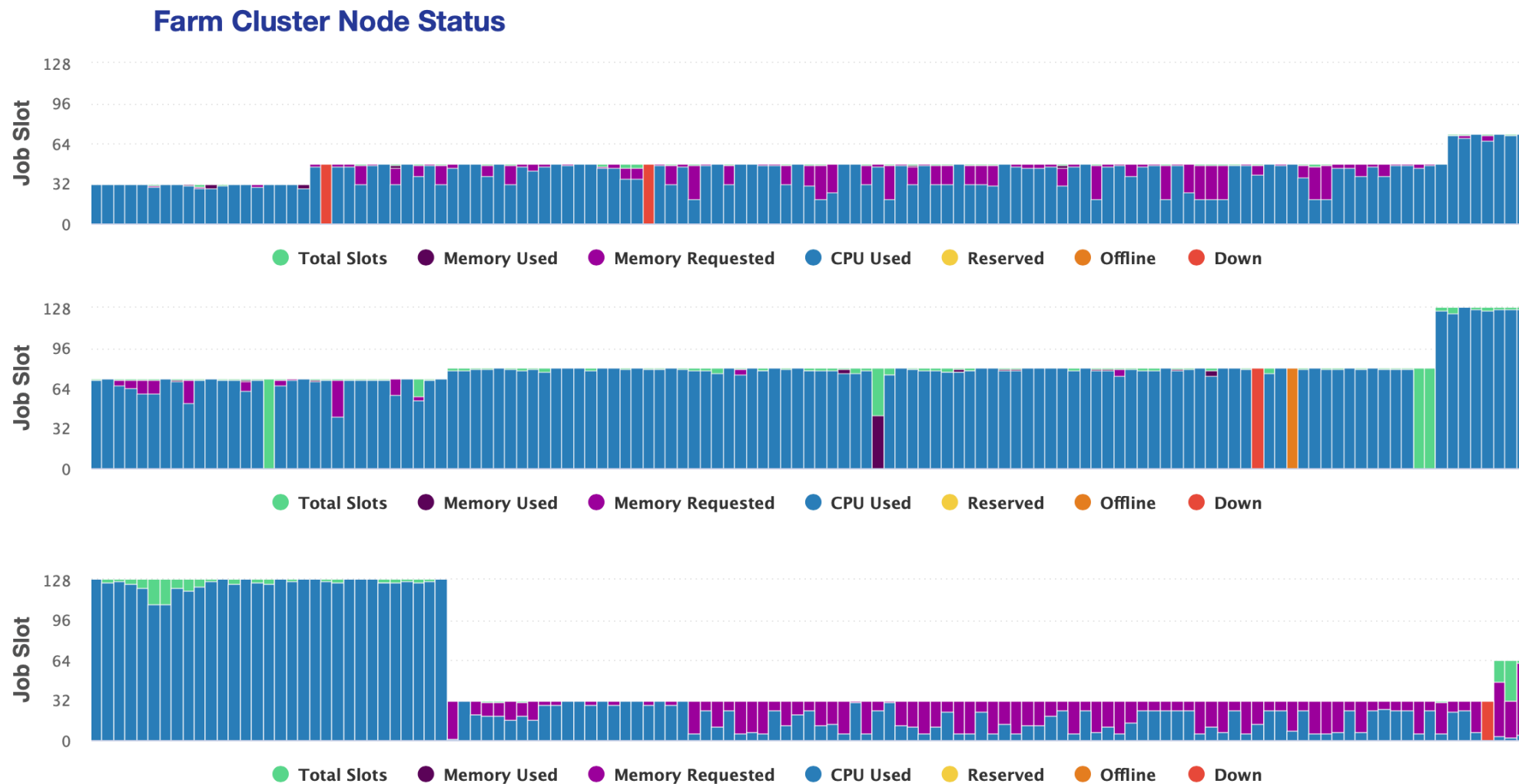


JLab Computing resource for EIC R&D

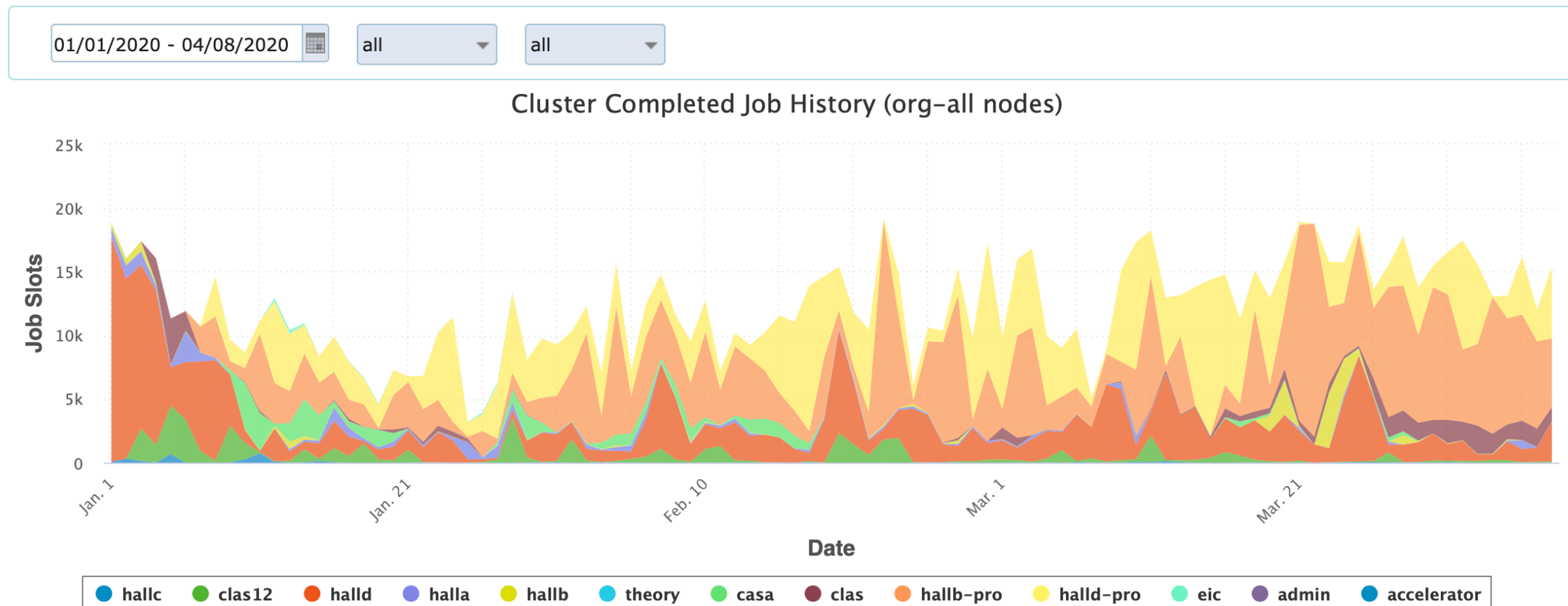
- Mangled quote of the day:
 - Ask not what I can do for you but say rather what you would want me to do.
- Current state of NP scientific computing cluster(s) at JLab:
 - Various generations of Intel/AMD CPU ~11,000 cores.
 - Equivalent to 7,000 cores when normalized to Farm19, dual 32-core AMD EPYC 7502 2.5 GHz CPUs



JLab Computing resource for EIC R&D

- The batch farm operates on a fair-share algorithm
 - 90% of resources guaranteed for the four NP halls.
 - 10% shared by everything else.
 - EIC is one of the "everything else" groups, and it shares evenly with those. Currently, that list is accelerator, admin, casa, EIC, ESH&Q, IT Division, LQCD, machine learning, and theory.
 - Many of these projects see only occasional use. The only big user of that 10% is theory because of Nobuo's JAM group.
 - If NP are not using their 90% projects from the 10% group can make opportunistic use.

Scicomp Farm Cluster Job History



JLab Storage resource for EIC R&D

- JLab has several flavors of storage:
 - /work - self managed by groups, it is not backed up - 635 TB for all groups.
 - /group - self managed by groups, it IS backed up - limited space.
 - /volatile - scratch space, managed with deletion policy.
 - /cache - disk cache for tape library, auto managed.

/Volatile + /cache total 4PB, soon 5PB and boundary between is dynamic.

- Currently EIC quotas on all of these flavors of disk are tiny. If I know what they should be then I can carve it out of the unused space and/or put it in the budget.

Write-through Cache System (2200 TB)

Project Usage		jcache Requests		jcache Query		File Pin Info		
Org	High Quota	PinQuota	Guarantee	Used	NeedTape	SmallFile(MB)	Pinned	Pinned %
halld	1,200,000	500,000	500,000	1,237,783	32,978	328,693	165,154	33.03%
clas12	600,000	250,000	250,000	649,593	31,636	16,242	86,773	34.71%
hallb	180,000	80,000	80,000	153,179	0	29,788	6,408	8.01%
clas	120,000	50,000	50,000	155,977	0	323	258	0.52%
halla	80,000	40,000	40,000	45,238	34	5,066	250	0.62%
hallc	80,000	40,000	40,000	46,123	0	1,496	1,389	3.47%
home	20,000	10,000	10,000	8,476	0	9,171	353	3.53%
eic	5,000	2,000	2,000	0	0	67	0	0.00%
accel	5,000	2,000	2,000	0	0	33	0	0.00%
	2,290,000	974,000	974,000	2,296,369	64,648	390,879	260,585	

Small File counts all data files that have size less than 1MB. All size units in the table are in GB if it is not specified.