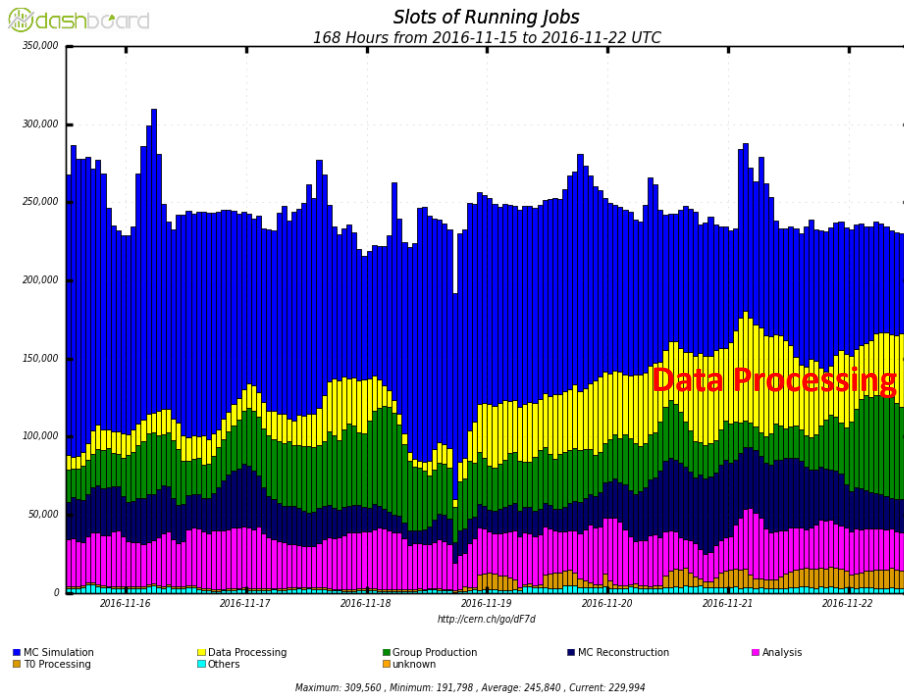
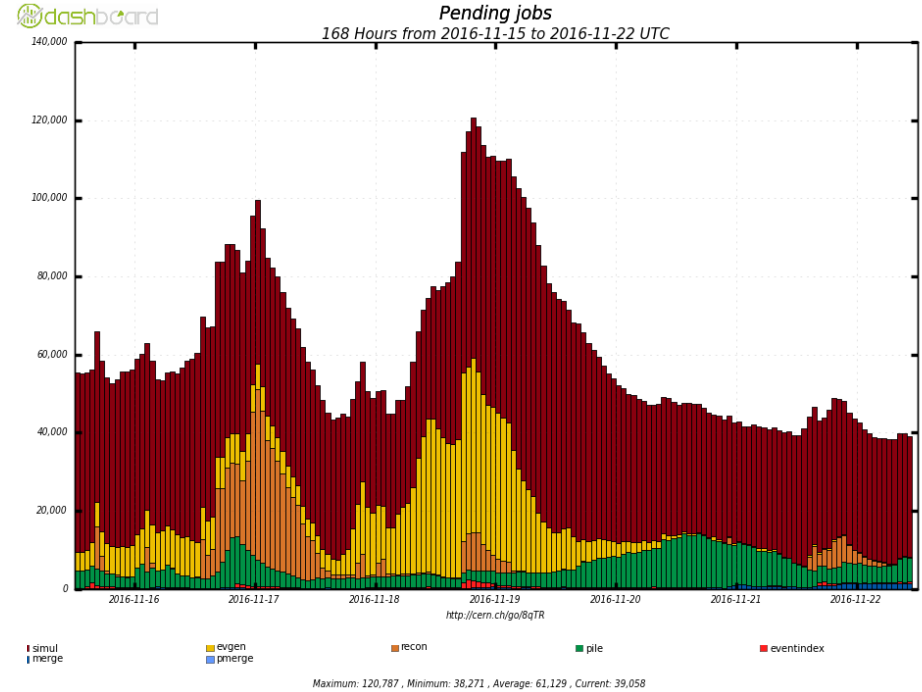
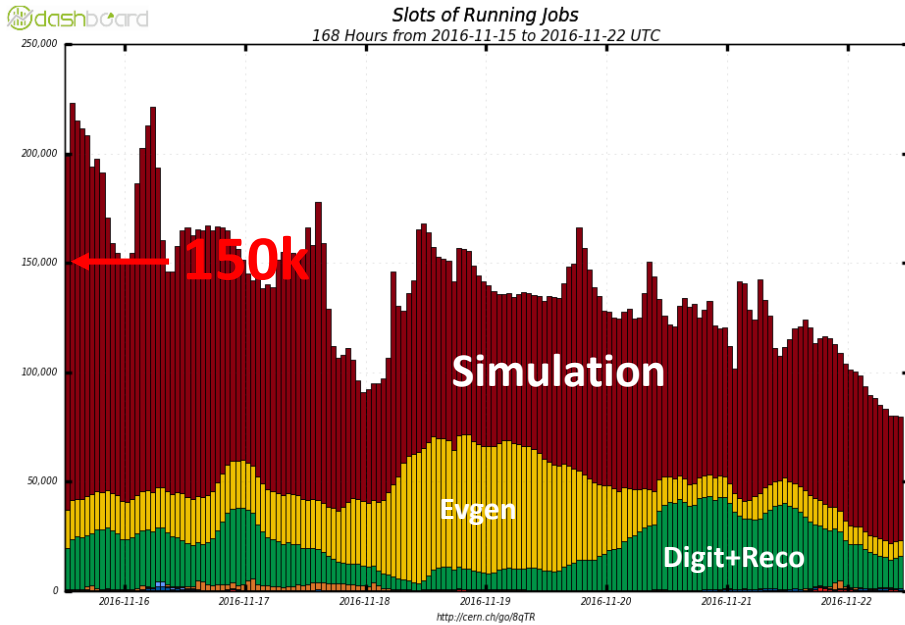


MC Production

Doug and Junichi, 22 Nov 2016



The running job slots decreased recently due to “Data reprocessing” (see the bottom left plot).

We have ~360M events in the production queue and also there are about 10 requests in the approval step. We expect still many requests with MC15c for paper preparation.

Boost tasks of tail events

Recently we found that many tasks have the highest priority (=900) because of the “boost” of tasks to finish tail events asap.

As a result, the real priority (urgent) samples cannot be processed because their priority is lower than 900.

<http://bigpanda.cern.ch/runningmcprodtasks/>

Container	Name	PID	Type	Status	Priority	...
MC-18	9010	910100	running	stuck	900	...
MC-18	9011	910101	running	stuck	900	...
MC-18	9012	910102	running	stuck	900	...
MC-18	9013	910103	running	stuck	900	...
MC-18	9014	910104	running	stuck	900	...
MC-18	9015	910105	running	stuck	900	...
MC-18	9016	910106	running	stuck	900	...
MC-18	9017	910107	running	stuck	900	...
MC-18	9018	910108	running	stuck	900	...
MC-18	9019	910109	running	stuck	900	...
MC-18	9020	910110	running	stuck	900	...
MC-18	9021	910111	running	stuck	900	...
MC-18	9022	910112	running	stuck	900	...
MC-18	9023	910113	running	stuck	900	...
MC-18	9024	910114	running	stuck	900	...
MC-18	9025	910115	running	stuck	900	...
MC-18	9026	910116	running	stuck	900	...
MC-18	9027	910117	running	stuck	900	...
MC-18	9028	910118	running	stuck	900	...
MC-18	9029	910119	running	stuck	900	...
MC-18	9030	910120	running	stuck	900	...
MC-18	9031	910121	running	stuck	900	...
MC-18	9032	910122	running	stuck	900	...
MC-18	9033	910123	running	stuck	900	...
MC-18	9034	910124	running	stuck	900	...
MC-18	9035	910125	running	stuck	900	...
MC-18	9036	910126	running	stuck	900	...
MC-18	9037	910127	running	stuck	900	...
MC-18	9038	910128	running	stuck	900	...
MC-18	9039	910129	running	stuck	900	...
MC-18	9040	910130	running	stuck	900	...
MC-18	9041	910131	running	stuck	900	...
MC-18	9042	910132	running	stuck	900	...
MC-18	9043	910133	running	stuck	900	...
MC-18	9044	910134	running	stuck	900	...
MC-18	9045	910135	running	stuck	900	...
MC-18	9046	910136	running	stuck	900	...
MC-18	9047	910137	running	stuck	900	...
MC-18	9048	910138	running	stuck	900	...
MC-18	9049	910139	running	stuck	900	...
MC-18	9050	910140	running	stuck	900	...
MC-18	9051	910141	running	stuck	900	...
MC-18	9052	910142	running	stuck	900	...
MC-18	9053	910143	running	stuck	900	...
MC-18	9054	910144	running	stuck	900	...
MC-18	9055	910145	running	stuck	900	...
MC-18	9056	910146	running	stuck	900	...
MC-18	9057	910147	running	stuck	900	...
MC-18	9058	910148	running	stuck	900	...
MC-18	9059	910149	running	stuck	900	...
MC-18	9060	910150	running	stuck	900	...
MC-18	9061	910151	running	stuck	900	...
MC-18	9062	910152	running	stuck	900	...
MC-18	9063	910153	running	stuck	900	...
MC-18	9064	910154	running	stuck	900	...
MC-18	9065	910155	running	stuck	900	...
MC-18	9066	910156	running	stuck	900	...
MC-18	9067	910157	running	stuck	900	...
MC-18	9068	910158	running	stuck	900	...
MC-18	9069	910159	running	stuck	900	...
MC-18	9070	910160	running	stuck	900	...
MC-18	9071	910161	running	stuck	900	...
MC-18	9072	910162	running	stuck	900	...
MC-18	9073	910163	running	stuck	900	...
MC-18	9074	910164	running	stuck	900	...
MC-18	9075	910165	running	stuck	900	...
MC-18	9076	910166	running	stuck	900	...
MC-18	9077	910167	running	stuck	900	...
MC-18	9078	910168	running	stuck	900	...
MC-18	9079	910169	running	stuck	900	...
MC-18	9080	910170	running	stuck	900	...
MC-18	9081	910171	running	stuck	900	...
MC-18	9082	910172	running	stuck	900	...
MC-18	9083	910173	running	stuck	900	...
MC-18	9084	910174	running	stuck	900	...
MC-18	9085	910175	running	stuck	900	...
MC-18	9086	910176	running	stuck	900	...
MC-18	9087	910177	running	stuck	900	...
MC-18	9088	910178	running	stuck	900	...
MC-18	9089	910179	running	stuck	900	...
MC-18	9090	910180	running	stuck	900	...
MC-18	9091	910181	running	stuck	900	...
MC-18	9092	910182	running	stuck	900	...
MC-18	9093	910183	running	stuck	900	...
MC-18	9094	910184	running	stuck	900	...
MC-18	9095	910185	running	stuck	900	...
MC-18	9096	910186	running	stuck	900	...
MC-18	9097	910187	running	stuck	900	...
MC-18	9098	910188	running	stuck	900	...
MC-18	9099	910189	running	stuck	900	...
MC-18	9100	910190	running	stuck	900	...

Now we have about 10 pages (~500) of running etc tasks and ~40% tasks have 900 priority. The original idea of the boost does not work well, we think. (“the tail events can be quickly finished to finalize their tasks.”)

900!

The current condition to boost is

“when 90% of jobs in a task are finished, the priority of its task is set to 900”.

(it does not depend on the original priority.)

It might be too loose. So if possible, we want to change this condition, for example,

First use 95% → **790 for Evgen,**
470 for Simul/Simul(Fast),
540 for Digi/Reco/Atlfast
when 95% of jobs are finished. processingType Only for priority 0-4

Don't exceed
priority of -2.

Then, use 900 when 99.5% of jobs are finished. All tasks including -2.

https://prodtask-dev.cern.ch/prodtask/mcpriority_table/

	Priority	Evgen	Simul	Simul(Fast)	Merge	Digi	Reco	Rec Merge	Rec TAG	Atlfast	Atlf Merge	Atlf TAG	Deriv
Update	-11	899	899	899	899	899	899	899	899	899	899	899	899
Update	-10	850	850	850	899	850	850	899	899	850	899	899	899
Update	-2	800	480	500	899	550	550	899	899	570	899	899	899
Update	0	750	380	400	895	450	450	895	895	470	895	895	895
Update	1	700	280	300	890	350	350	890	890	370	890	890	890
Update	2	380	180	200	885	250	250	885	885	270	885	885	885
Update	3	280	140	160	880	170	170	880	880	190	880	880	880
Update	4	240	100	120	875	130	130	875	875	150	875	875	875

Others

- A meeting about “mc16 workflow” will be held in the next week with Prodsys2 experts.
- Requests for Titan will be prepared. We are asking PMG conveners now. Please wait.