Universität Zürich[UZH]

CSCS Tier2 Status
LHCb

Roland Bernet

Universität Zürich

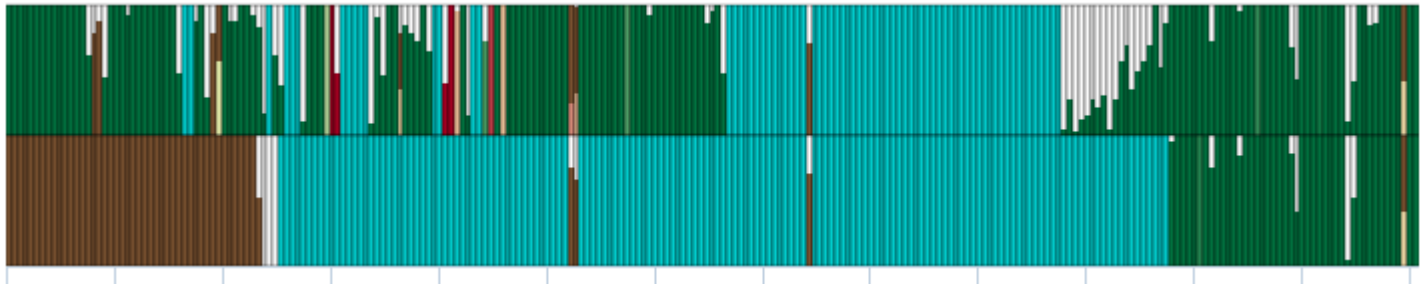
CSCS Status – LHCb

Status:	Generally smooth running for the cluster (Piz Daint).
Tickets:	In general I do not see CSCS tickets as I am not involved. Tickets are dealt with centrally. I get only involved, when CSCS and LHCb cannot solve them or something has to be discussed and/or a ticket is not the right channel.
Monitoring:	LHCb monitoring: We have named the site again LCG.CSCS.ch, in case you want to find some plots in the LHCb monitoring. There is also a new web interface with minor changes for the user.
Feature:	It seems LHCb is not able to run more than 2500 jobs on the cluster, even if the system is half empty. This look like a bug in the configuration. It would also explain, why the cluster is not always used completely

CSCS Status – LHCb

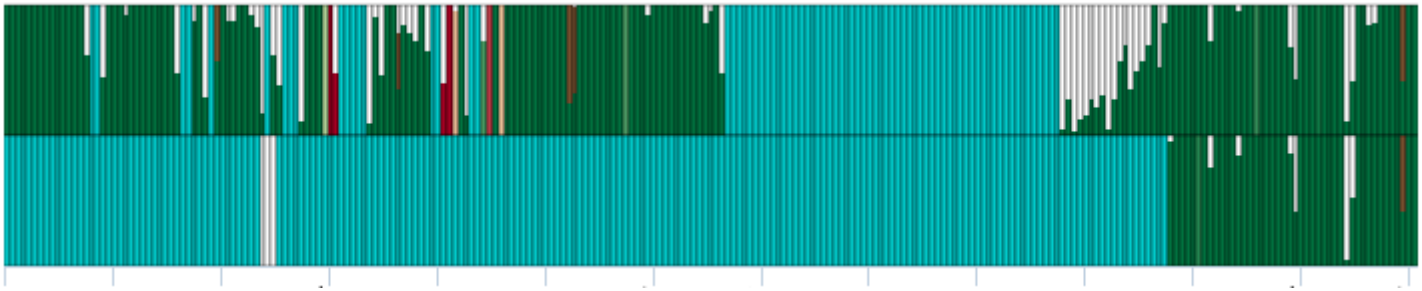
SAMAvailabiliy: 01/01/2019 - 06/07/2019

Piz Daint ARCs



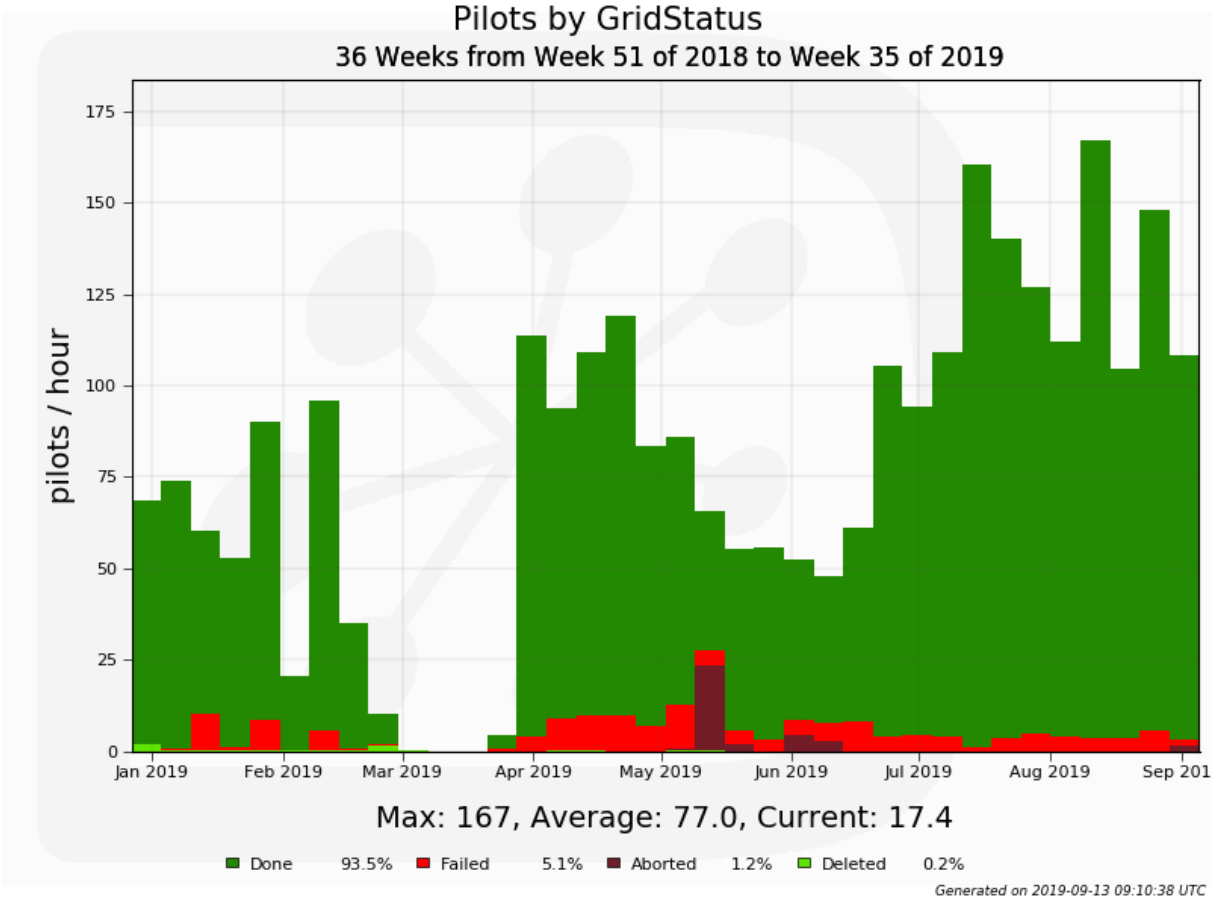
SAMReliability: 01/01/2019 - 06/07/2019

Piz Daint ARCs



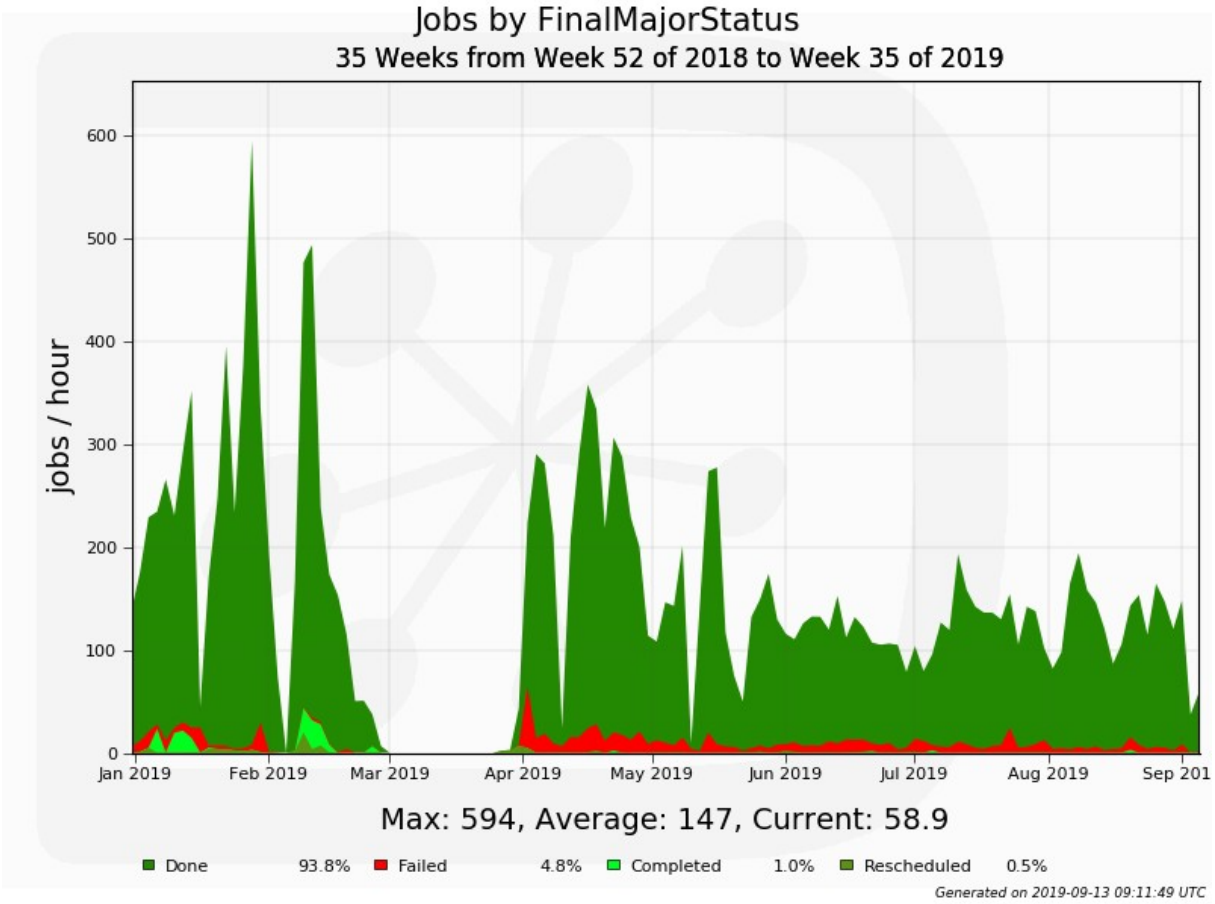
CSCS Status – LHCb

Pilot Efficiency: **01/01/2019 - 06/09/2019**



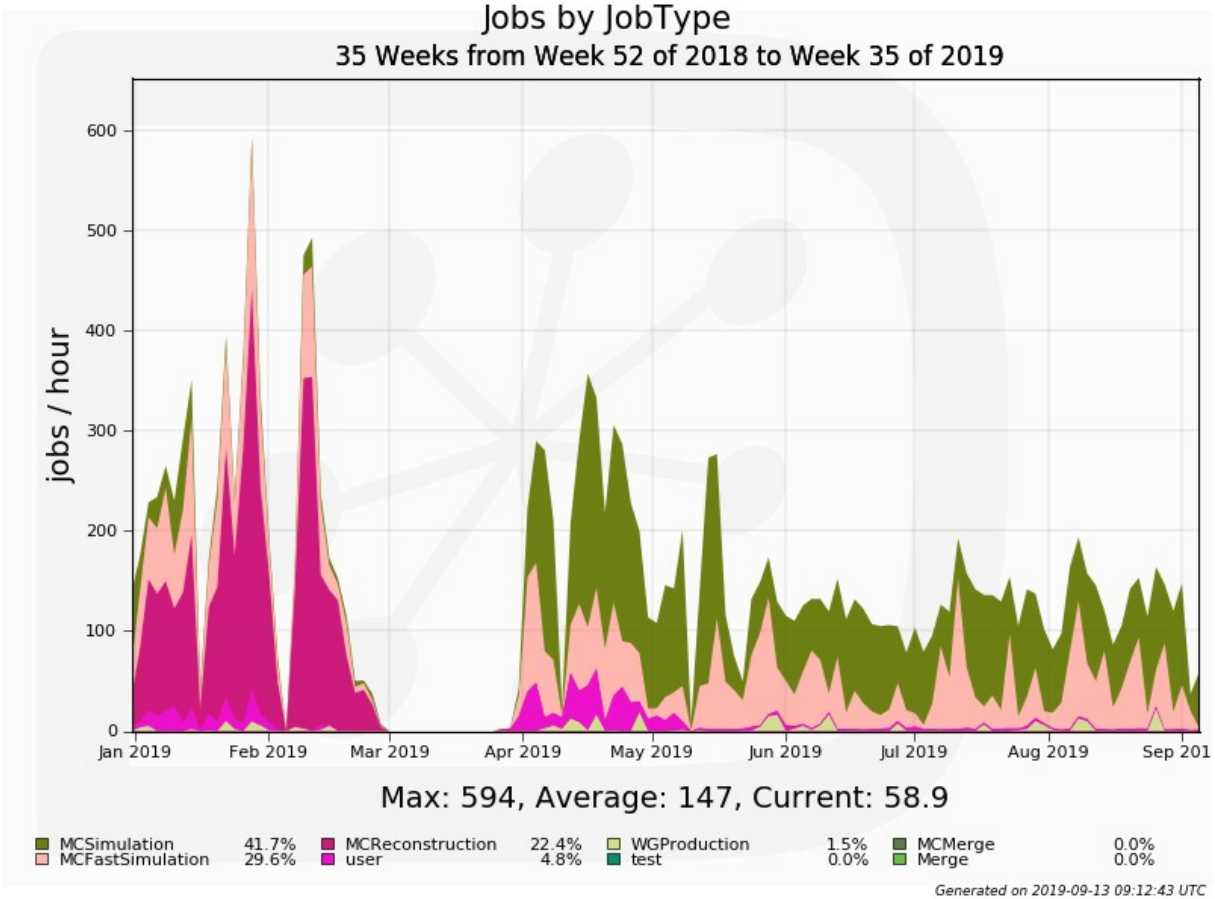
CSCS Status – LHCb

Job Efficiency: **01/01/2019 - 06/09/2019**



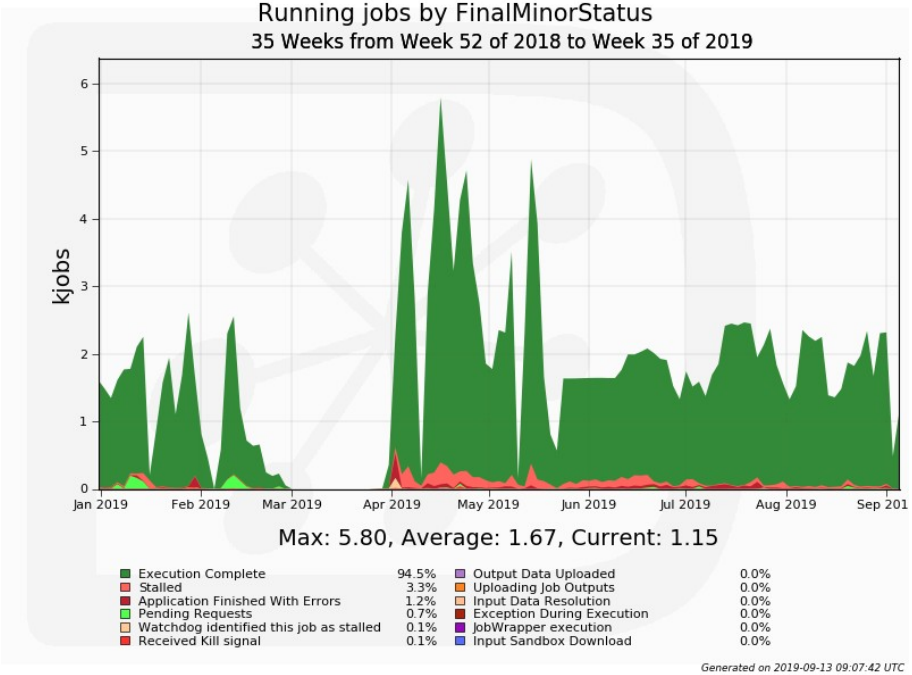
CSCS Status – LHCb

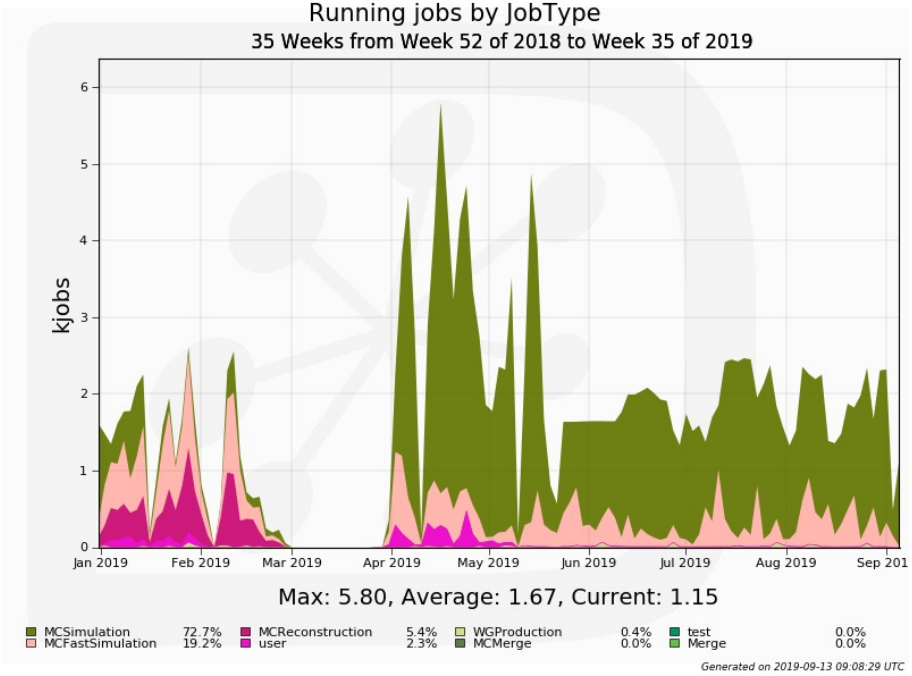
Job Types: **01/01/2019 - 06/09/2019**



CSCS Status – LHCb

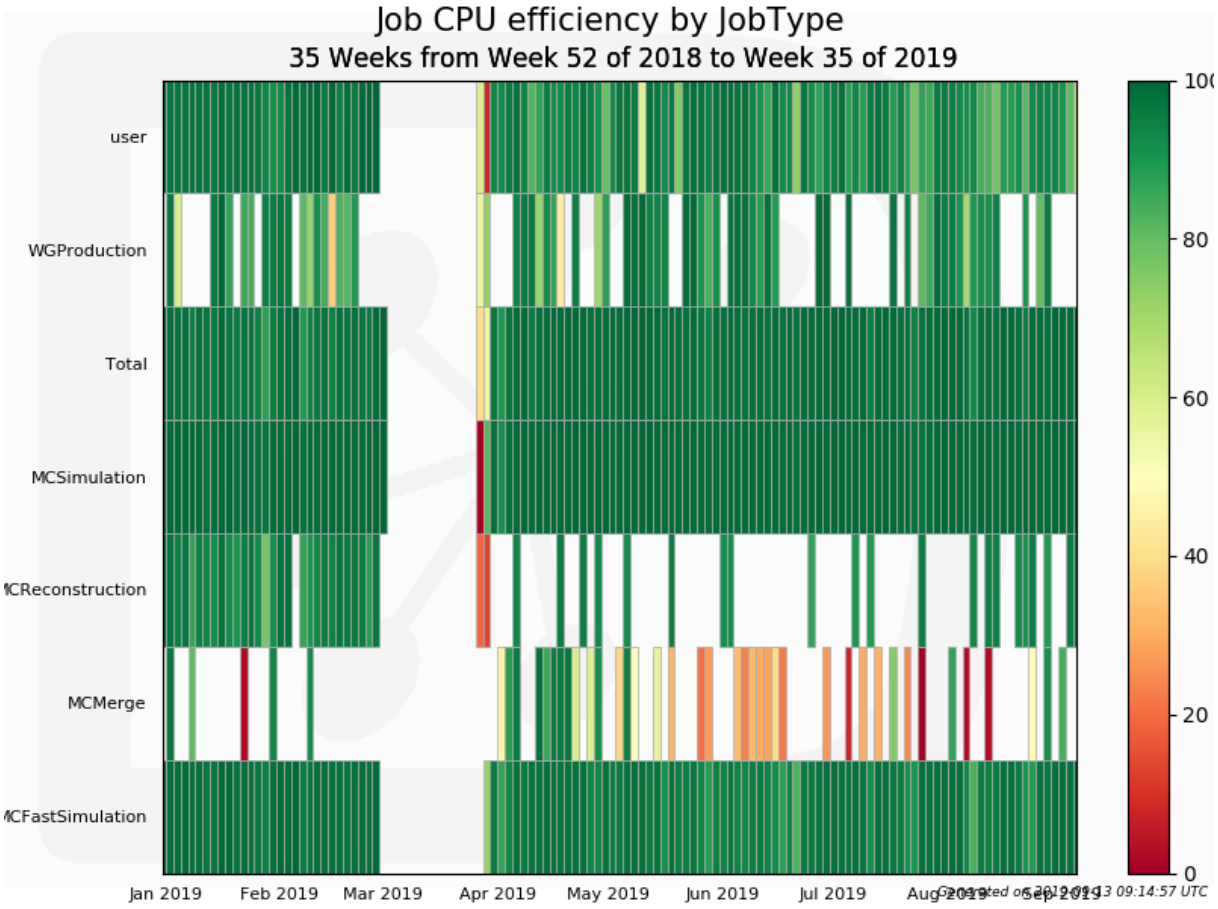
Running Job: **01/01/2019 - 06/09/2019**





CSCS Status – LHCb

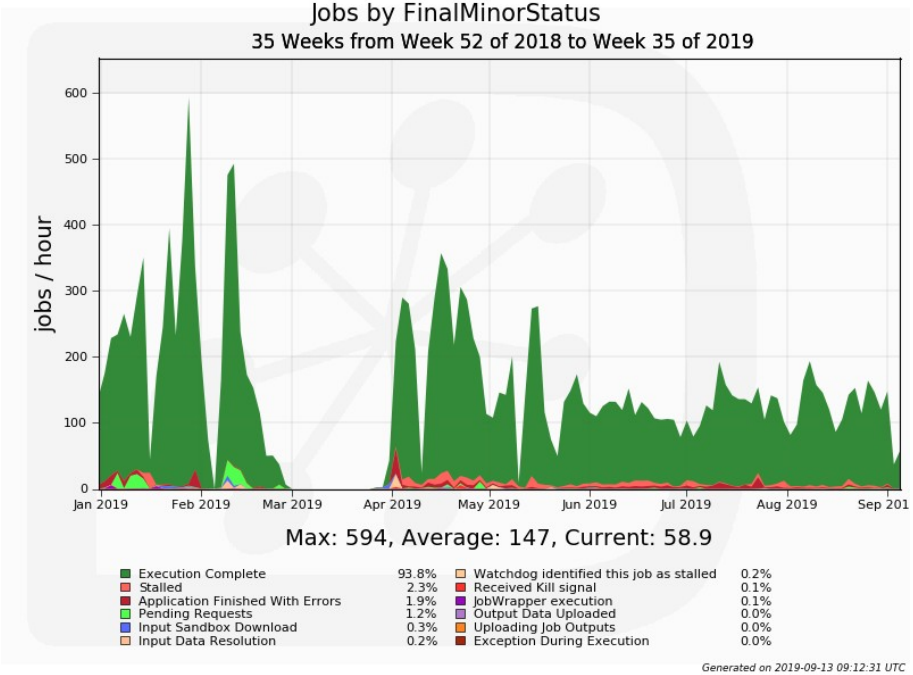
CPU Efficiency: **01/01/2019 - 06/09/2019**



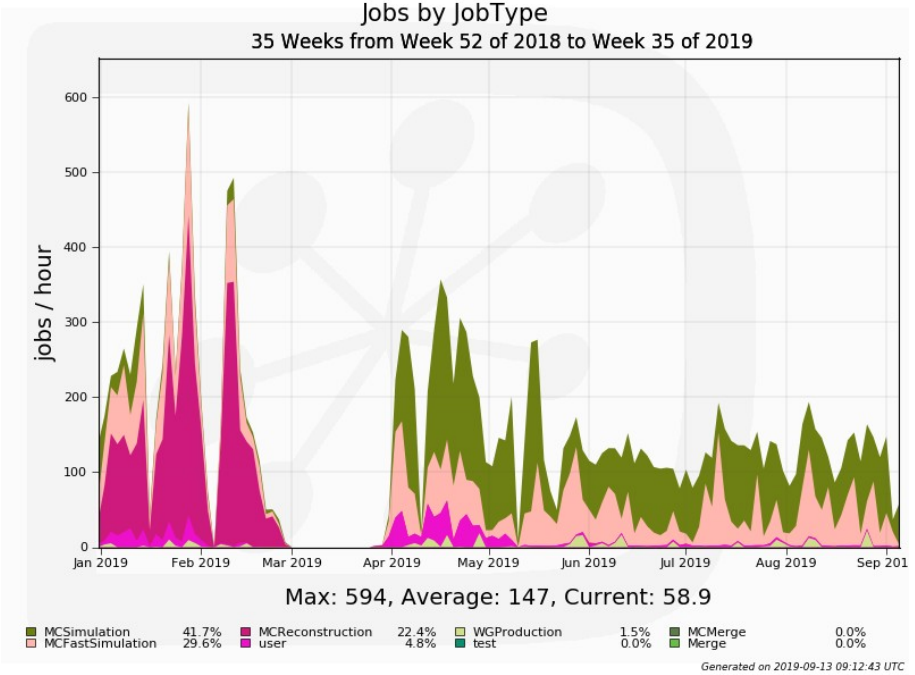
CSCS Status – LHCb

Piz Daint Performance:

Job Statistic on Piz Daint



Job Types on Piz Daint



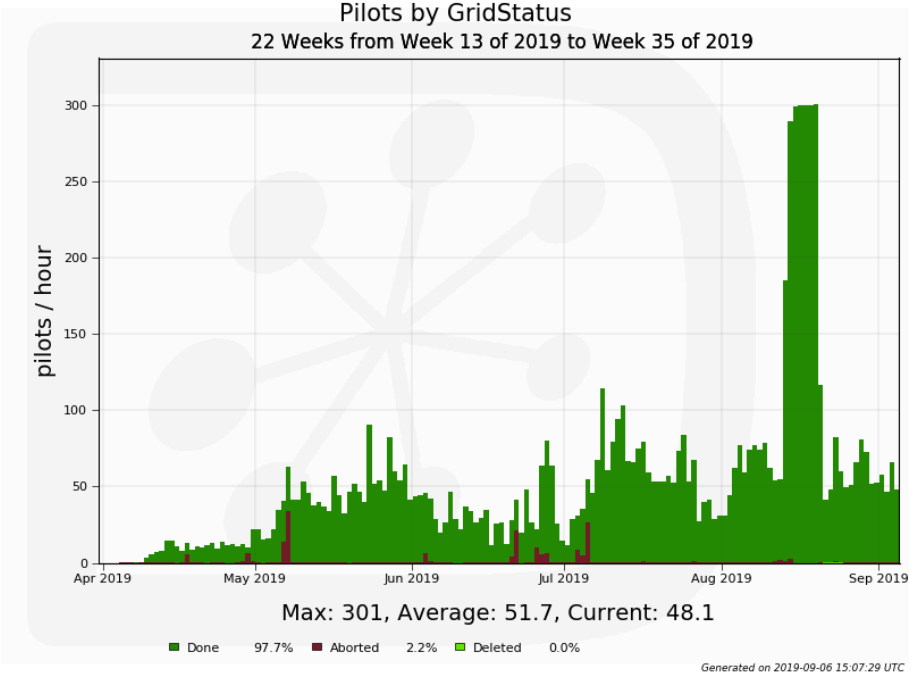
UZH - Tier3 Status
LHCb

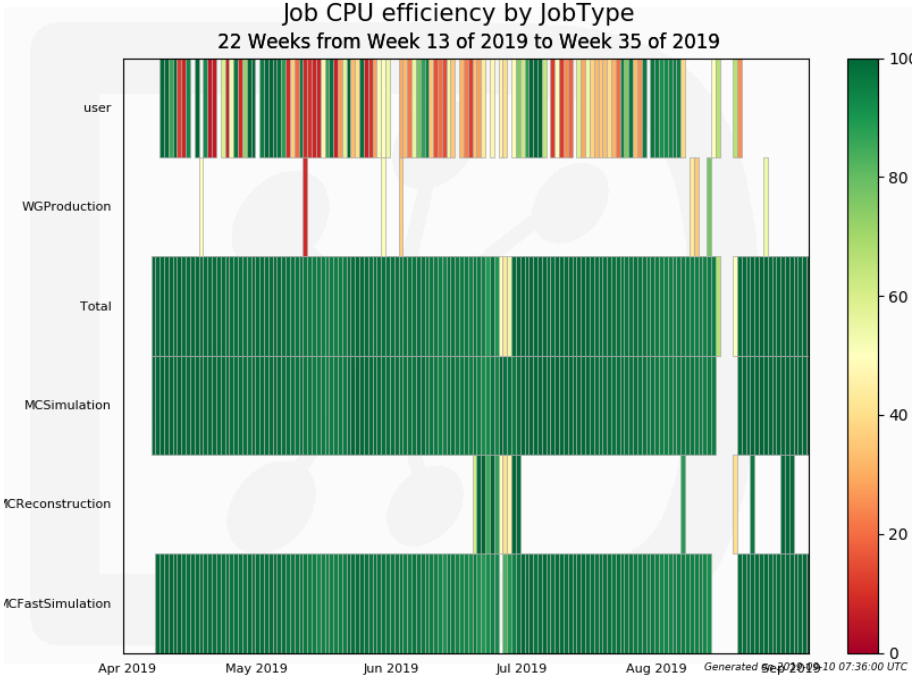
Since 01/04/2019

(openSUSE cluster)

UZH Status – LHCb

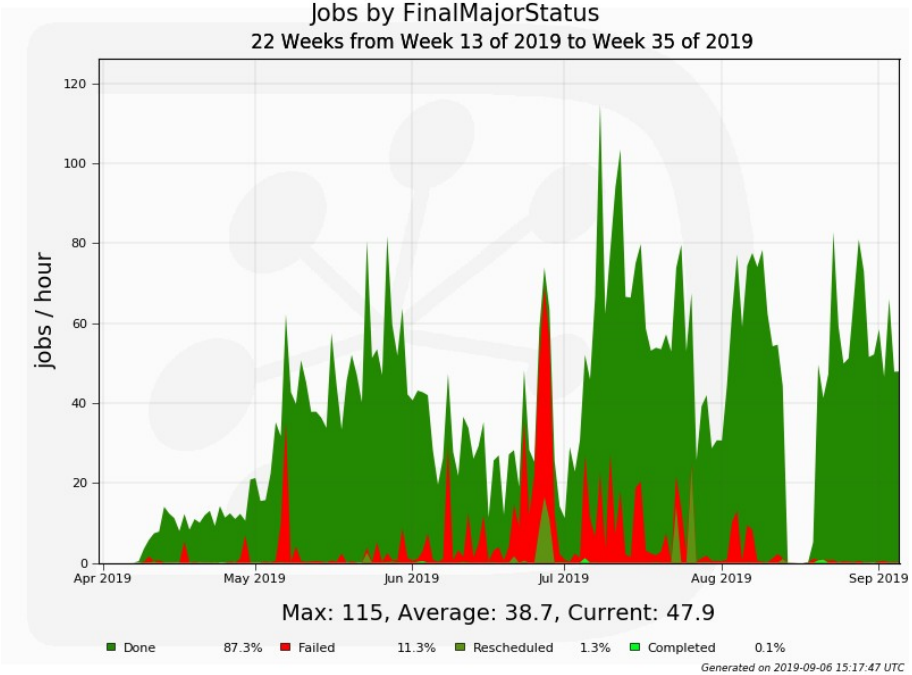
Pilot / CPU Efficiency: **01/04/2019 - 06/09/2019**

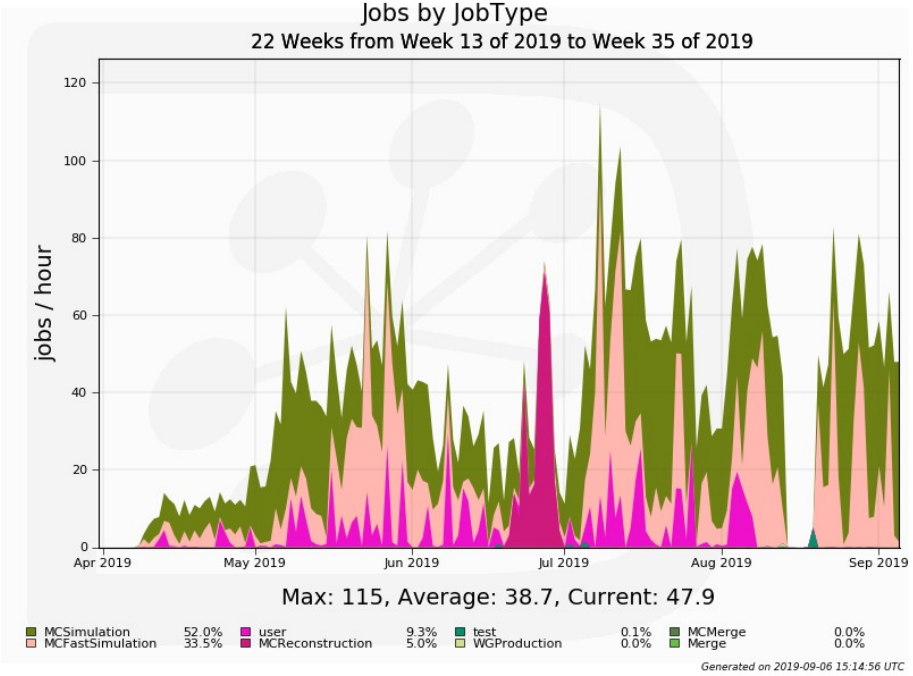




UZH Status – LHCb

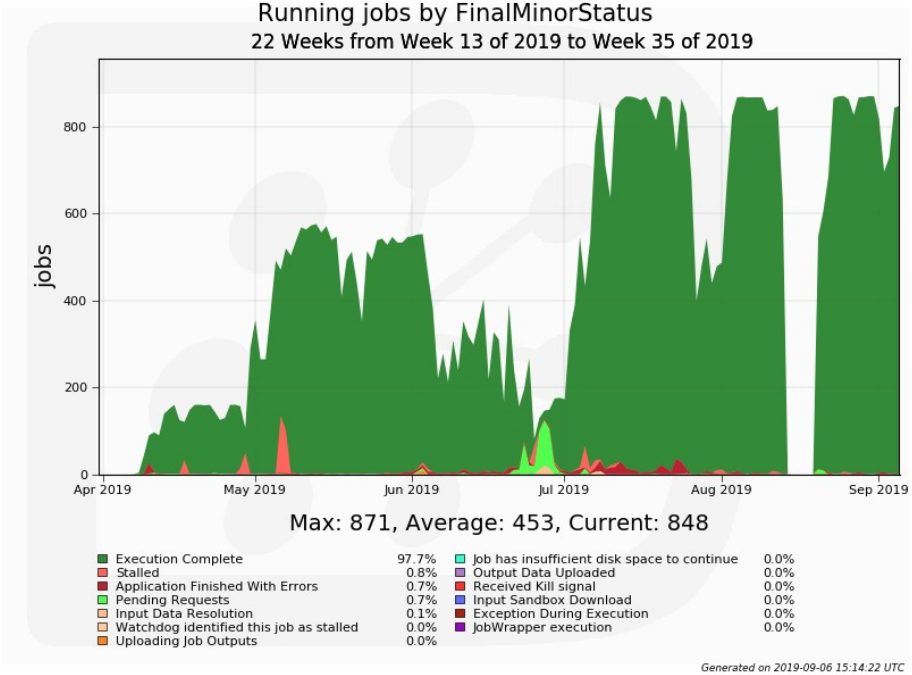
Performance: **01/04/2019 - 06/09/2019**

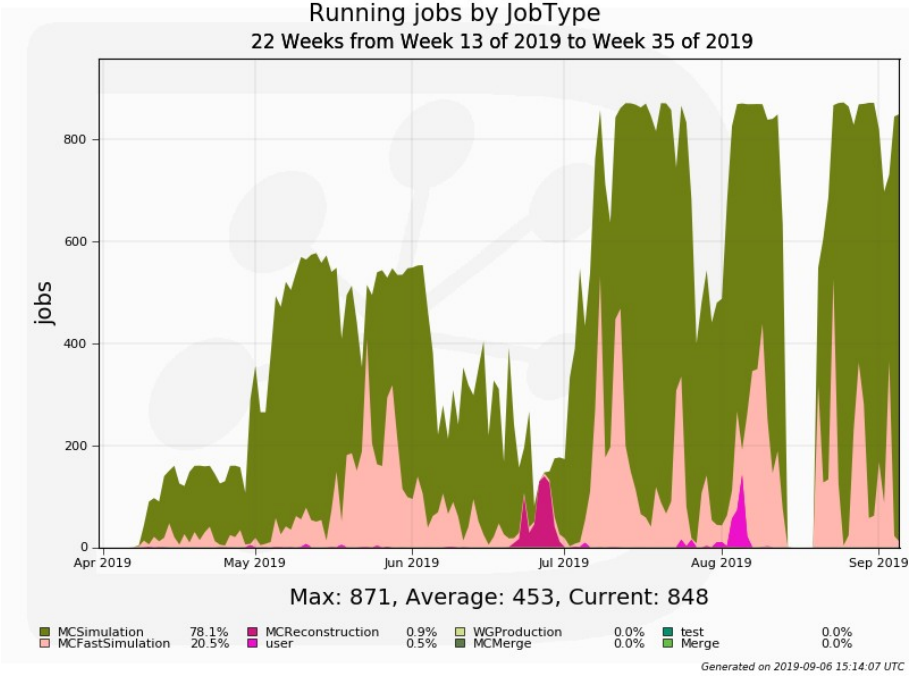




UZH Status – LHCb

Running Job: **01/04/2019 - 06/09/2019**





Status – LHCb

Conclusions

- The cluster is running fine. No major problems.
- We see a higher rate of pilot failure on Piz Daint than on other clusters. LHCb thinks this is due to the HPC setup, but we cannot exactly figure out the problem or reason.
- At University of Zurich we managed successfully to combine the hardware of our two clusters to a single openSUSE cluster running also LHCb job.
- Since middle of August we are the first site in LHCb running LHCb jobs through singularity, independent of the underlying operating system.

Thanks for all the work!

Universität Zürich[UZH]

UZH - Tier3 Status
LHCb

UZH – Tier3 Cluster

Status: LHCb Zürich maintains a local simulation and analysis cluster, which is integrated into the institute Linux cluster. We are not part of WLCG but are part of the LHCb DIRAC framework, which allows us to run LHCb Grid jobs on idle CPUs.

Hardware:
- 700 CPU cores (ca. 8000 HS06)
- 350 TB disk space

Development: Recently we started to use the UZH ScienceCloud, an OpenStack multi-purpose compute and storage infrastructure, for our needs. Instead of replacing old hardware in our cluster, we are using CPUs in the ScienceCloud running our own worker node images. This reduces the maintenance burden for us and should overall be cheaper for everybody. Currently around 40% of the CPU power is delivered by the ScienceCloud. We started to migrate the system scratch area to the ScienceCloud.

Usage: week 21-28 September 2017:
- dirac: LHCb LCG jobs
- others: local user jobs