



DIRAC at LHCb

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The 9th DIRAC Users' Workshop

May 2019

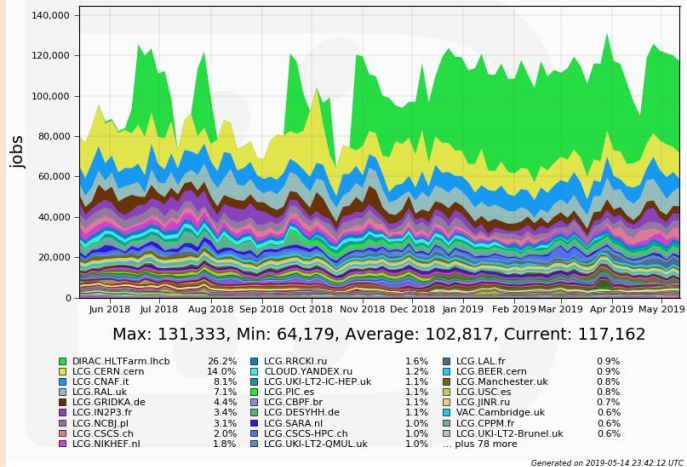
London



Manpower

- Philippe is retiring
- Chris B. (2nd Chris) is coming
- 4 persons at CERN
- 1½ persons world distributed
- 4⅔ persons in total
- ½ of them in development
- ⅓ of them in certification and deployment
- +GEOC
- 1±2 for operation

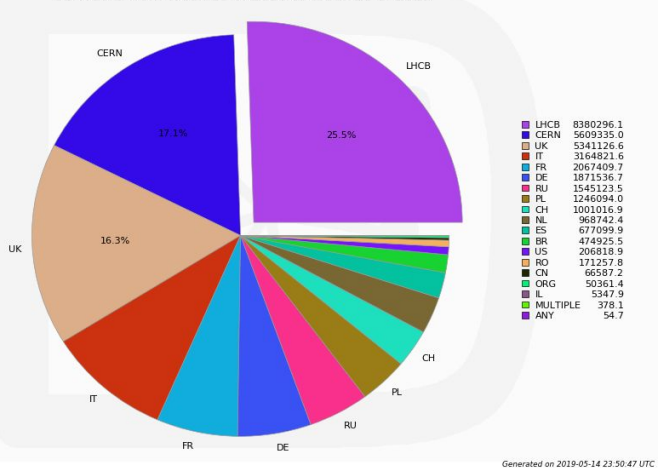
Running jobs by site
52 Weeks from Week 19 of 2018 to Week 19 of 2019



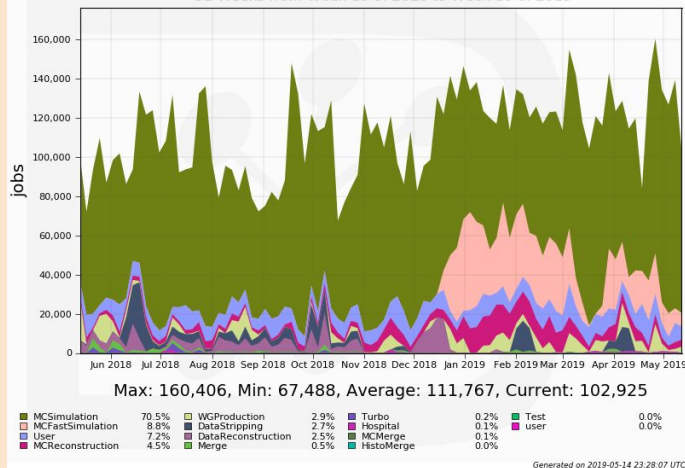
LHCb activities in the last year

- HLTfarm works even during data taking
- LHCb 25%
- CERN
- UK, IT, FR, DE
- RU, PL, CH,

CPU days used by Country
52 Weeks from Week 19 of 2018 to Week 19 of 2019



Running jobs by job type
52 Weeks from Week 19 of 2018 to Week 19 of 2019

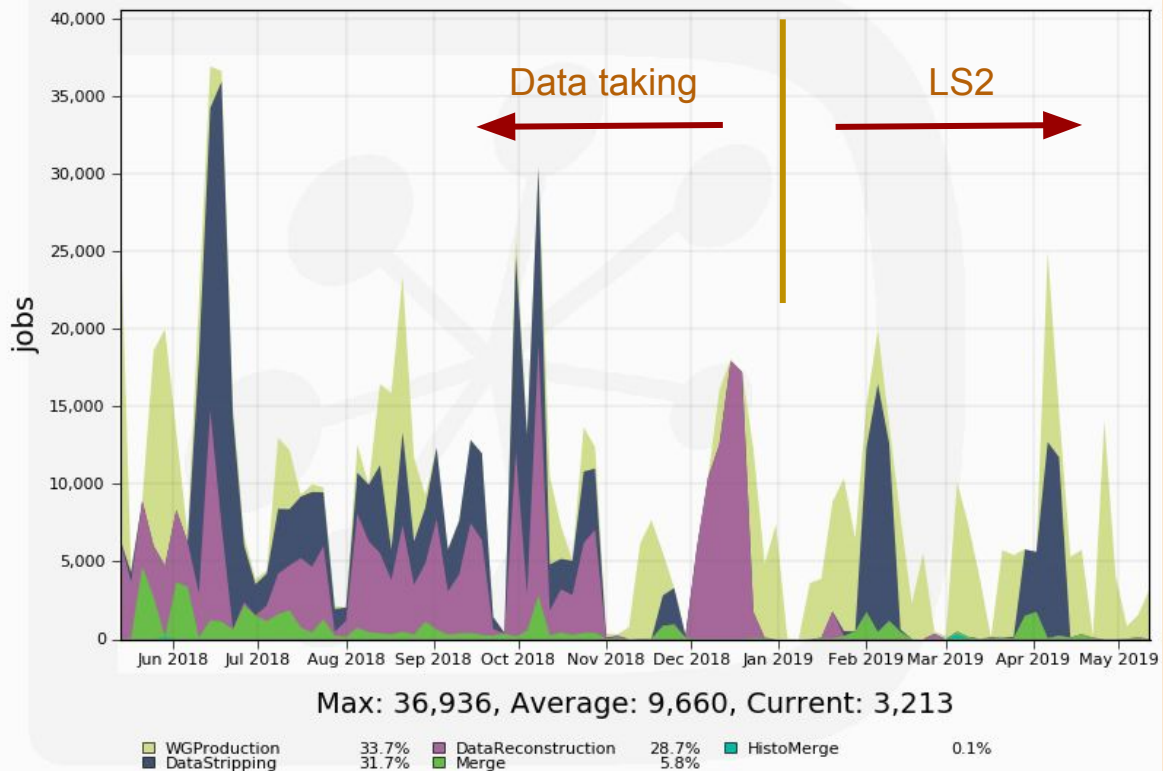


- MCSimulation
- MCFastSimulation
- User
-

LHCb real data activities in the last year

Running jobs for real data by job type

52 Weeks from Week 19 of 2018 to Week 19 of 2019



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- Data taking
 - Prompt Reconstruction
 - Prompt Stripping
- LS2
 - Restripping
 - WG production

WG production

- First in real data activity
- $\frac{1}{3}$ of real data activity
- 2 times more than in previous year

Not traditional sites at LHCb in the last year

No BOINC anymore

- <<1% CPU
- manpower limitation
- scalability problem
- development needed

VAC sites

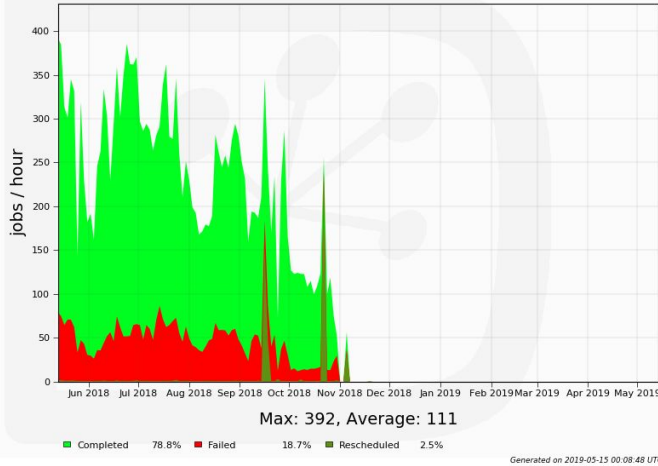
- VAC CEs are in GOCDDB
- 3% CPU

CLOUD sites

- manpower limitation
- scalability problem
- ??????

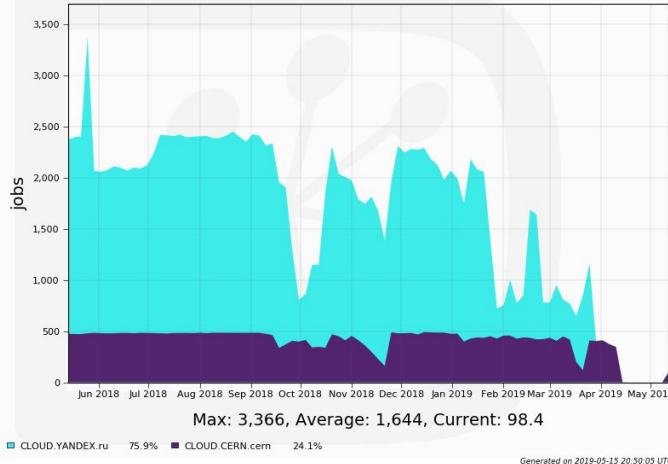
BOINC jobs by Status

52 Weeks from Week 19 of 2018 to Week 19 of 2019



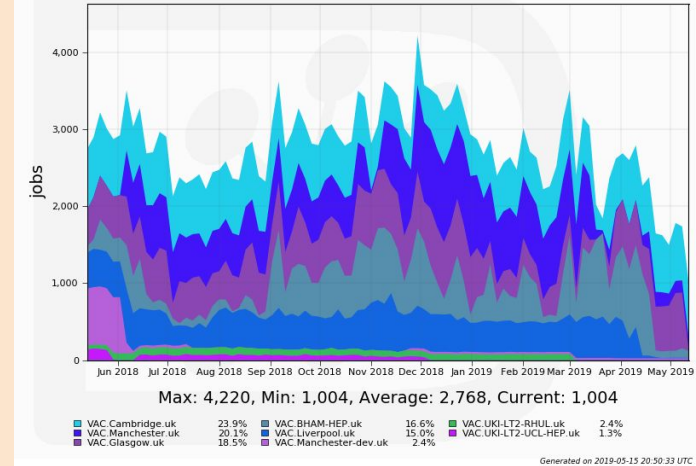
Jobs at CLOUD Site

52 Weeks from Week 19 of 2018 to Week 19 of 2019



Jobs at VAC Sites

52 Weeks from Week 19 of 2018 to Week 19 of 2019



Everything else

- Pilot submission issues
 - Filling mode not at all sites
 - MJF not at all sites
 - missing plugin for batch systems
 - Slow pilot submission to ARC
 - “Aborted” pilots at CERN
- HPC
 - CSCS is working under ARC CE
 - SDumont no significant progress after 2 years as DIRAC site
 - CNAF waiting for test under HTCondor
- Central logging system
 - For services only
- Pilot 3.0 at
 - HLTFarm
 - VAC
 - CLOUD
- T2D site
 - Beijing
- DIRAC sites
 - UZH
 - Sibir
- DIRACOS
 - at one vobox only
 - services only
 - FileCatalog
 - Bookkeeping
- ElasticSearch in use
 - Monitoring
 - WMS
 - Component Monitoring
 - MC error accounting
- Platforms
 - SLC5 ≠ Centos7
 - CC7 ≠ SLC6
 - sse4_2 ≠ old processors

Conclusion

- LHCb is running successfully different workflows
- LHCb participates actively in development, certification and deployment
- LHCb is looking around for new technology and trying to use them
- Not so bad as it can be