



Overview of PanDA Monitor

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Venerable and Evolving

- The basics were laid down a long time ago:
 - Get job information from the DB.
 - Present it as fast as possible.
- Significant evolution as the DB has processed tens of millions of jobs per year, still accelerating.
 - Can't just query. Much too slow. High load.
 - Caches, prefetches, hinted indices, lots of action in the background.
- Critical service
 - This is how users and prod managers track everything. When problems arise, email arrive in minutes.

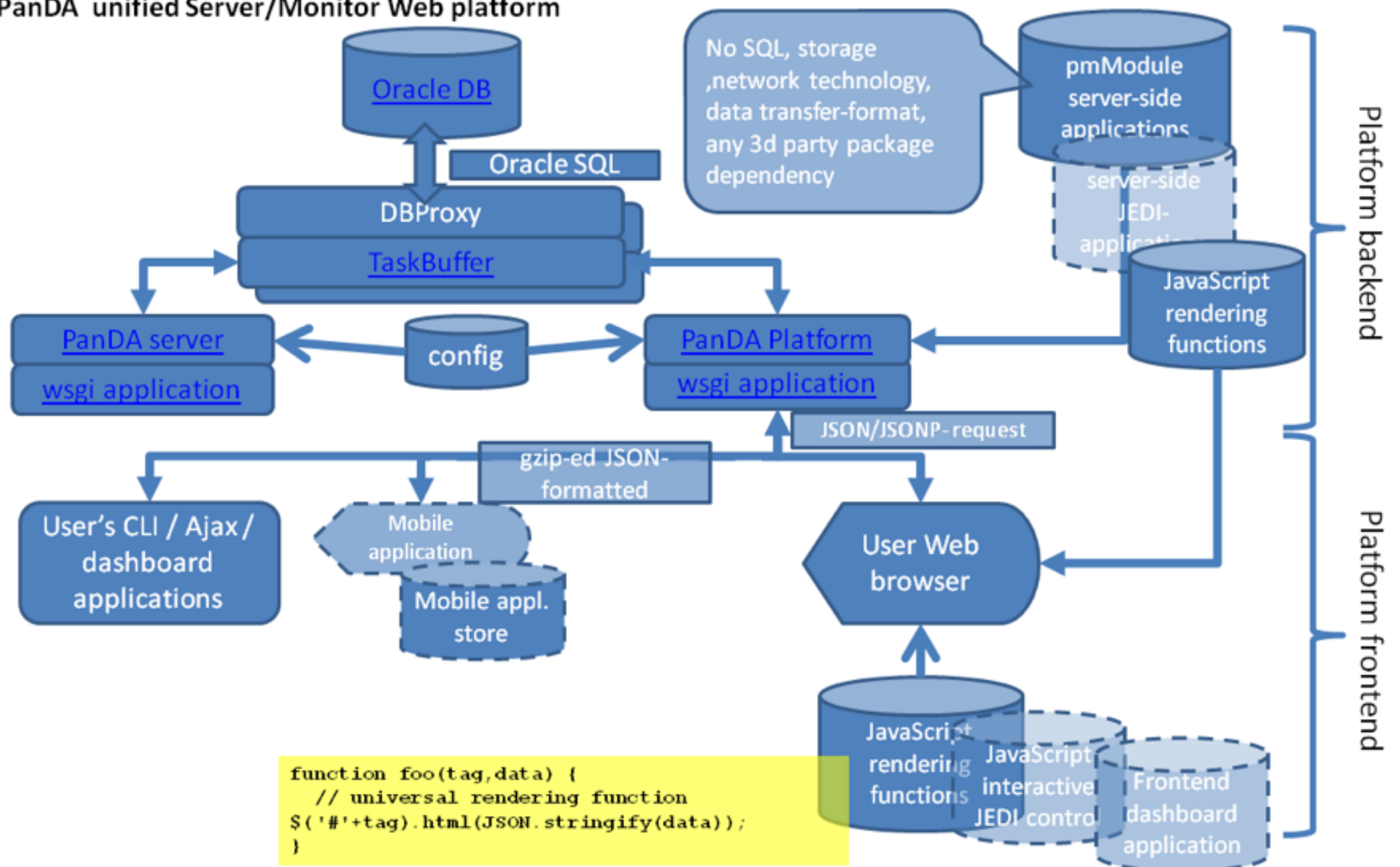


Newest Iteration

- Valeri Fine has been the principal architect of the new Panda Monitor, being built in place over the old version.
 - Backward-compatible (the old PandaMon runs as a subset of the new one).
 - AJAX allows background loading of important information without clutter.
 - Taking over the functionality of the old monitor one module at a time -- completion by the end of this year.



PanDA unified Server/Monitor Web platform



Developer-Friendly

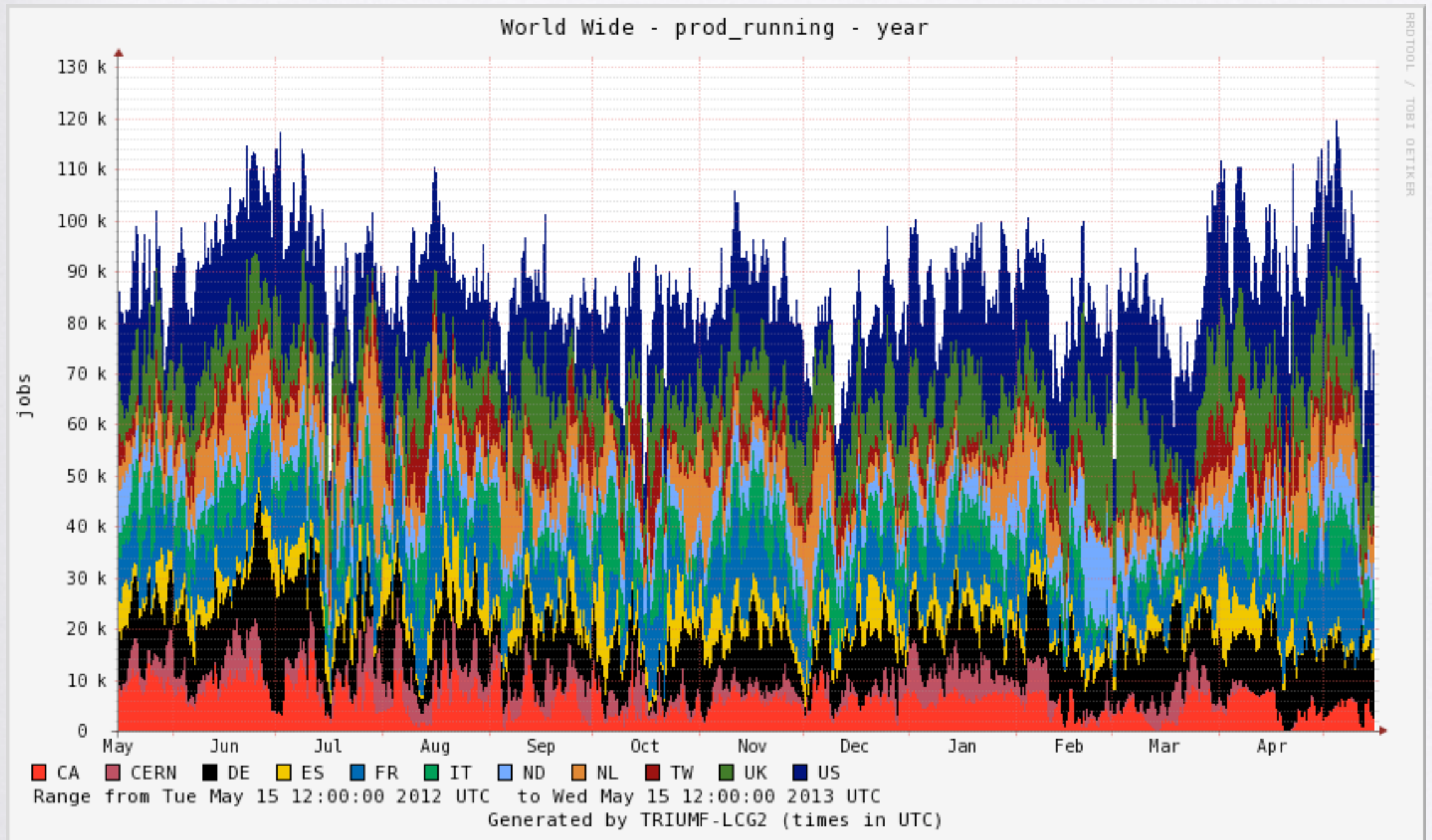
- CLI and API are both provided
 - Allows much easier scripting and code based on the monitor -- no need to scrape the HTML.
 - Modules can be added to the monitor by individual users and admins with special needs.
 - Without special approval! Insulated by certificate authentication from the rest of the world.
- Backend handles schema evolution, insulating frontend code from changes.



PanDA information

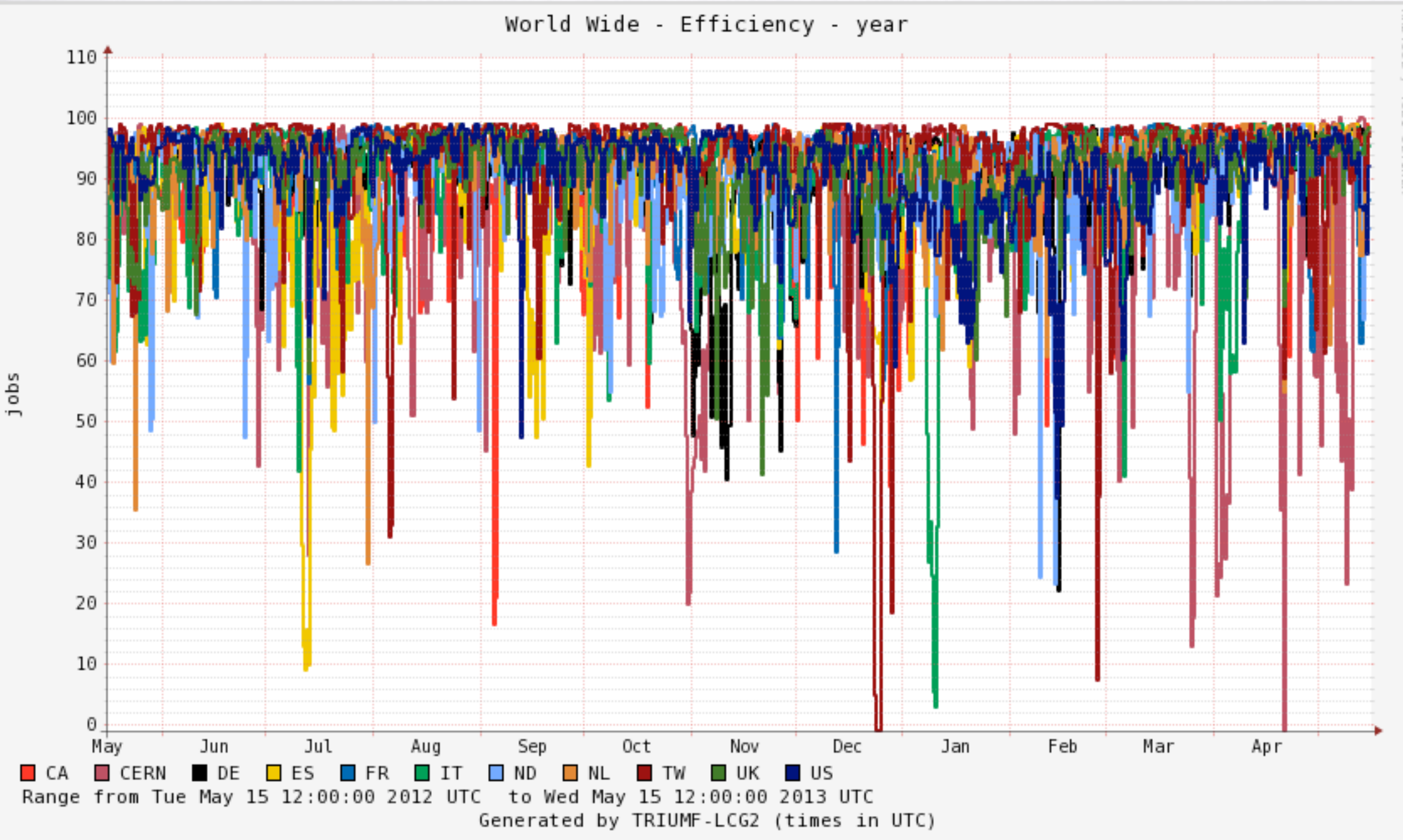
- Contains all the information about site configuration that PanDA keeps.
 - Can be found in the AutoPilot item, gives all site configuration parameters that are harvested from AGIS.
- Extensive reporting and statistics by site, cloud, activity, status, user, etc... and many combinations of the above.





World Wide Running - Year





World Wide Efficiency - Year



Job data for 71 hours

panamon.cern.ch/jobinfo

JavaScript cache

PanDA Monitor
Times are in UTC

Job data for 71 hours
limit=1500

The classic Panda Page is available here

New Platform
New Panda
My Jobs
Introduction
Job Information
List Monitor Modules
Incidents
Users
Production
Analysis
Releases
Jobs/Releases
Sites
Clouds
Clouds' Config
MC Shares
Sites' MaxTime
Multi Core Tasks
Worker Nodes
List Jobs' IDs and DataSets
Plain List of the Selected Jobs' IDs
Get Prod Job Script
Task Request
Task List
List Panda Error Codes
FAX viewer
Classic PanDA Pages
Analysis Timing
Popularity

60129 Atlas-17.3.7: 4719 Atlas-17.0.4: 40180 Atlas-17.2.1 Atlas-17.2.1: 197589 Atlas-17.X.0: 239 Atlas-17.0.3: 9369 Atlas-16.6.6: 58 Atlas-17.0.3 Atlas-17.0.3: 65 Atlas-16.6.4: 653 Atlas-17.3.10: 3706 Atlas-16.6.5: 1240 Atlas-17.3.0: 18209 Atlas-16.2.2: 202 Atlas-17.2.7: 590850 Atlas-17.0.2: 10988 Atlas-17.0.1: 982 Atlas-17.7.90: 804 Atlas-15.6.9: 4
Processing types (18:2534800): gangarobot-rctest: 28510 pathena: 381403 pile: 247323 pandamover: 45030 reco: 72447 gangarobot: 82493 gangarobot-pft: 77491 hammercloud: 40514 merge: 29025
reprocessing: 38880 test: 471 simul: 243346 usermerge: 13535 evgen: 9628 prun: 1206397 validation: 4087 ganga: 13931 gangarobot-nightly: 289
Job types (9:2565366): ddm: 45030 rc_test: 29750 managed: 644736 panda: 29339 prod_test: 77491 user: 1730698 test: 952 install: 7185 ptest: 185
Transformations (20:2565469): Reco_trf.py: 79109 buildGen-00-00-01: 24032 csc_MergeHIST_trf.py: 113 Evgen_trf.py: 481 MergeNTUP_trf.py: 99 runAthena-00-00-11: 494998 run_dq2_cr: 45030
Generate_trf.py: 9628 CMSRunAnalyDev.sh: 1233 TAGMerge_trf.py: 333 runGen-00-00-02: 1240892 CMSRunAnaly.sh: 8037 DigIMReco_trf.py: 51908 Merging_trf.py: 62219 runMerge-00-00-01: 13535 Merging_trf.py DigIMReco_trf.py: 197589 DigI_trf.py Reco_trf.py: 65 AtlasG4_trf.py: 323156 buildJob-00-00-03: 5820 sw-mgr: 7192
Working groups (31:707612): AP_Exotics: 36712 AP_Reprocessing: 38880 XP_Higgs: 11916 GP_JetMet: 283 AP_JetEtMiss: 663 trig-daq: 5503 GP_Muon: 2845 phys-sm: 186 GP_SM: 1146 AP_Physics: 148930
det-muon: 8621 GP_Susy: 1378 det-silhc: 500 perf-jets: 17610 AP_SM: 100462 AP_Higgs: 158405 AP_Top: 6443 GP_Top: 18353 GP_Higgs: 44935 AP_EGamma: 2394 phys-susy: 7098 det-indet: 157 phys-higgs: 19261
GP_Exotics: 42 perf-egamma: 3770 AP_Validation: 4087 AP_Susy: 54312 AP_BPhysics: 7216 AP_HeavyIon: 2803 GP_EGamma: 2527 phys-valid: 174
Creation Hosts (320:2520452): pc2013.hep.manchester.ac.uk: 3584 atlasui01.hep.ac.cn: 18210 atlaserv2.phas.ubc.ca: 2792 eprex16.ph.bham.ac.uk: 6568 atlas014.unige.ch: 23 atlas-ui-06.roma1.infn.it: 1158
lxplus315.cern.ch: 2463 lxplus0010.cern.ch: 21 lxplus308.cern.ch: 4793 lxplus425.cern.ch: 12203 lxplus421.cern.ch: 22039 lxplus433.cern.ch: 8686 wwwcache5.rl.ac.uk: 18 lxplus438.cern.ch: 15834 yakut01.slac.stanford.edu: 5262
pb-d-128-141-36-204.cern.ch: 1535 trilepton.uio.no: 31 lxplus0022.cern.ch: 15367 at302.pic.es: 290 pc183.hep.ud.ac.uk: 2702 pouwtwin43.cern.ch: 701 ppepc162.physics.gla.ac.uk: 530 elnet-89.jp.pt: 33702 lxplus316.cern.ch: 345
lxplus444.cern.ch: 1408 cobalt.uit.tufts.edu: 86076 ppepc127.physics.gla.ac.uk: 14 pcu01.cern.ch: 10 pc02008.cern.ch: 119 pcattbn14.cern.ch: 2 dapint010.extra.cea.fr: 93 lxplus0025.cern.ch: 93 lxplus0001.cern.ch: 34
lxplus0038.cern.ch: 201 pc157.hep.ud.ac.uk: 9 lxplus418.cern.ch: 4762 lxatut15.cern.ch: 2107 lxplus403.cern.ch: 7745 atlas-ui-04.roma1.infn.it: 4933 lxplus434.cern.ch: 2344 lxatut25.cern.ch: 9480 pdf1.nersc.gov: 401
at009.phy.duke.edu: 8 avery.atlas.albany.edu: 28 delanira.cern.ch: 1051 ui02.ft.uam.es: 776 lxplus311.cern.ch: 16792 lnp110.in2p3.fr: 36605 ccage023.in2p3.fr: 20380 lxplus432.cern.ch: 3214 linappserv0.pp.rhul.ac.uk: 27698
... 269 ...
Sites (283:2565123): UKI-NORTHGRID-LANCS-HEP: 5083 SLACKRD: 14934 FMPH-UNITRA: 3821 GRIF-LAL: 3542 ANALY_ECDE: 7424 ANALY INFN-MILANO-ATLASC: 5443 UKI-SCOTGRID-ECDE: 1143 HEPHY-UIBK: 3107 INFN-ROMA3-SLG: 775 WEIZMANN-LCG2: 2496 ANALY_ARG: 25497 UKI-NORTHGRID-LIV-HEP: 4078 ANALY IFIC: 33534 ANALY IHEP: 23072 ANALY GRIF-LAL: 4046 ANALY INFN-NAPOLI: 23316 BBC-KI-TI: 4693
ANALY_TTIME_CUMFS: 12310 BNL_PPCD: 1089 BNL-PPCD: 274 CERN_PPCD: 11005 BNL-PPCD: 2062 ANALY INFN-ECDE: 914 INFN-ECDE: 1157 UKI-T3-IT-HEP: 1563 wuonatalmond: 6506 BACKSPACE_CLOUD: 2670

816 sets matched selection

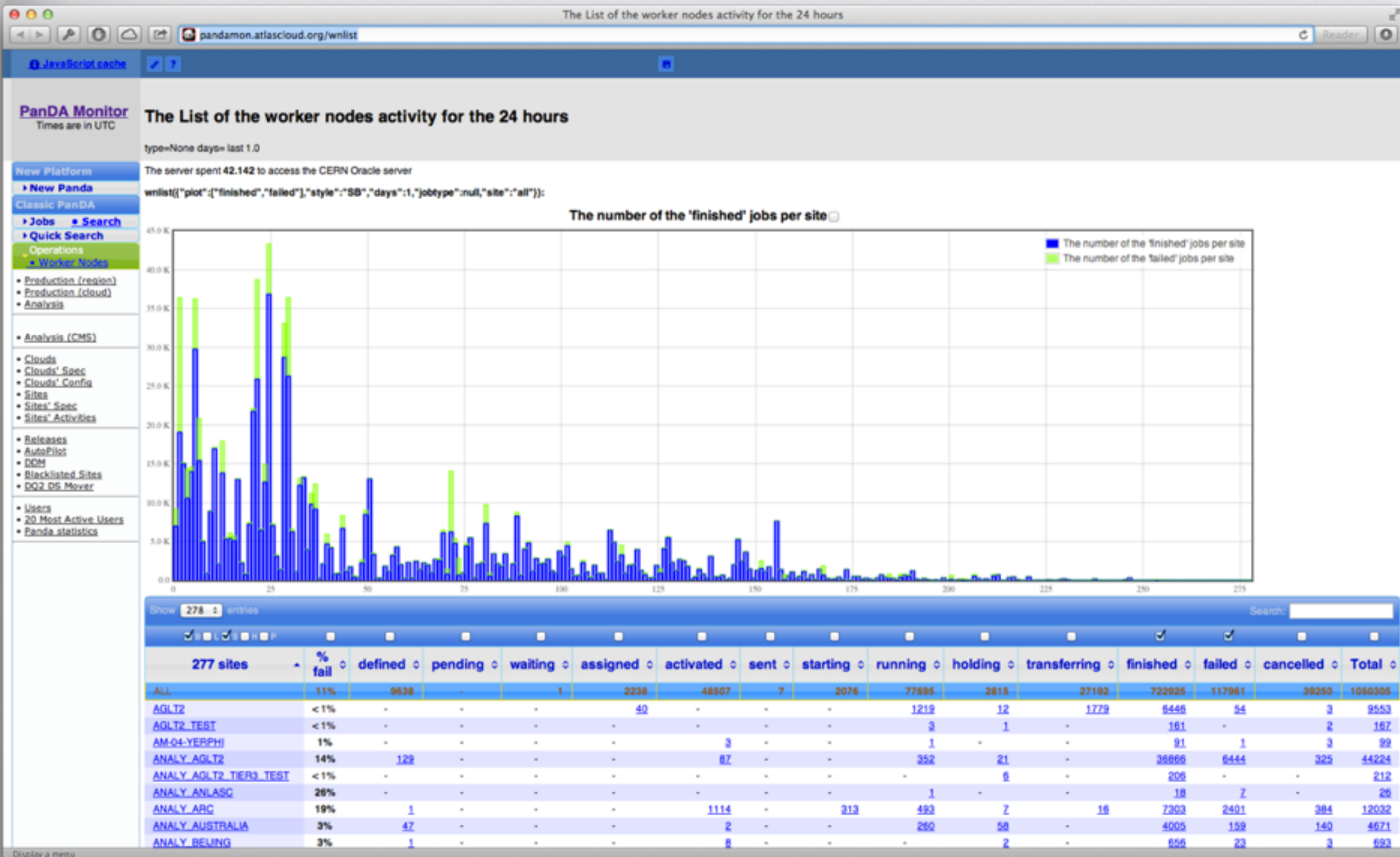
Show: 300 1 entries

User/jobsetID	Created	Latest	Jobs	Pre-run	Running	Holding	Finished	Failed	Cancelled	buildJob	Site
briller@physics.utoronto.ca 1254500 : GP_Higgs	2013-05-15 19:11:31	2013-05-15 19:11:31	1		1						LPC
jiahang.zhong@cern.ch None	2013-05-05 22:57:25	2013-05-05 22:57:25	1				1				BNL_ATLAS_DCM
Daniel Guest 39058	2013-05-15 20:10:50	2013-05-15 20:10:50	1	1							ANALY_ARG
Mahsana Haleem 15000	2013-05-12 14:12:38	2013-05-12 14:12:38	27				27				Multi-site
Sascha Mehlhase 22779 : phys-susy	2013-05-15 20:12:05	2013-05-15 20:12:05	2	2							ANALY_SARA
jiahang.zhong@cern.ch 1253233 : AP_Higgs	2013-05-15 17:40:57	2013-05-15 17:40:57	1		1						UKI-NORTHGRID-LIV-HEP
c.gwenlan1@physics.ox.ac.uk 1226623 : AP_SM	2013-05-11 21:04:03	2013-05-11 21:04:03	1				1				GRIF-LPNHE
jiahang.zhong@cern.ch 1253231 : AP_Higgs	2013-05-15 18:36:53	2013-05-15 18:36:53	1	1							GRIF-LPNHE
il.leifer@cern.ch 1254292 : AP_Reprocessing	2013-05-15 19:22:27	2013-05-15 19:22:27	2		2						BNL_CUMFS_1
il.leifer@cern.ch 1253781 : AP_Reprocessing	2013-05-15 17:29:05	2013-05-15 17:29:05	2	2							IN2P3-CC_SGE_VL
Cora Fischer 9439	2013-05-15 14:11:06	2013-05-15 14:11:06	1	1							ANALY_SHEP

Display a menu



UT ARLINGTON



Generalizable

- The Panda Web platform is generic enough to be used outside of the Panda project.
 - Focus is on extensibility and generality. For more details, Valeri Fine can provide you with examples and get you started.
 - See also backup slides for links and info.



Backup slides



Links

- <https://twiki.cern.ch/twiki/bin/viewauth/Atlas/PandaPlatform#Introduction>
- <https://twiki.cern.ch/twiki/bin/viewauth/Atlas/PandaPlatform#API>
- <https://twiki.cern.ch/twiki/bin/viewauth/Atlas/PandaPlatformDevelopers#Introduction>
- https://twiki.cern.ch/twiki/bin/viewauth/Atlas/PandaPlatformDevelopers#Three_Components
- <http://atlas-nightlies-browser.cern.ch/~dev>

