

autopyfactory

Graeme Stewart

ATLAS Software and Computing Week, April 2011



PH-ADP-CO

ChangeLog

- 1.1.0 Silent Running (December)
 - First official release with factory monitoring
 - See Peter's talk yesterday
 - Default is to make queries to the panda server via squid (port 25085)
 - Environment setup on factory start
 - Support allowOtherCountry flag for beyond the pledge resources
- 1.2.0 The Captain (March)
 - Print exception traces properly into factory logs
 - Disable use of python 2.6 unless explicitly enabled (define APF_PYTHON26)
 - Use Paul's development pilot for all ptest jobs by default

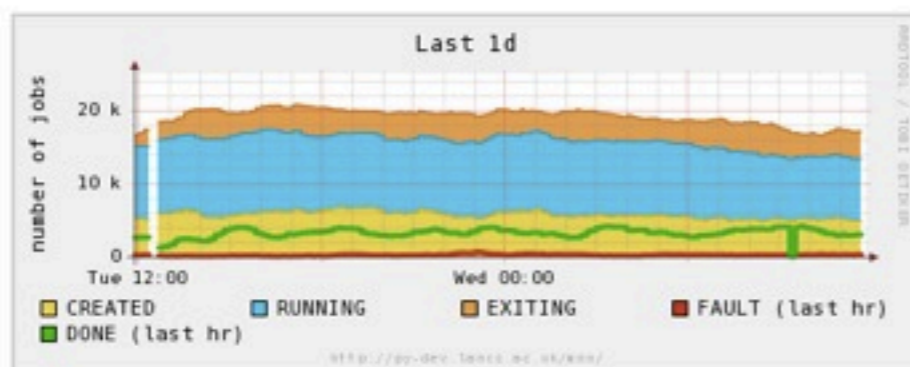
Monitoring

- All factories should be in:
 - monitorURL = <http://apfmon.lancs.ac.uk/mon/>

[Home](#) | [Admin](#) | [News & Info](#) | [Graphs](#)

Factory view: graeme-UK-apf

FACTORY graeme-UK-apf
LAST STARTUP 1 week, 2 days ago
LAST CYCLE 3 minutes ago
EMAIL graeme.andrew.stewart@cern.ch
IP 130.209.239.17
LOGS <http://svr017.gla.scotgrid.ac.uk/factory/auto/logs>



Factory queue label	created	running	exiting	done (1 hr)	fault (1 hr)
ANALY-SARA	20	278	48	36	0
ANALY_AUSTRALIA	3	7	47	30	0
ANALY_BHAM-05-cream	33	38	113	186	0
ANALY_BHAM-07-cream	22	9	49	12	0
ANALY_CAM	1271	31	28	25	160

BNL ACF Patches

- Significant contribution from John Hover in bnl-dev2/bnl-dev3 branches
 - Standard system script support: init.d, PID file, sysconf
 - FHS layout: /usr, /etc/apf, /var/log/apf
 - --runas to run as a non-privileged user
 - Support for Jose Caballero's new wrapper script
 - panda-userinterface support RPM to get the necessary panda server code
 - Replaced 'svn co'
- autopyfactory now running at BNL
 - Plan to merge these changes into 'current' branch soon
 - Tarball can still be built and installed without root privileges

Flexible Wrapper

- Contribution from Jose
 - Wrapper consists of very small shell bootstrap
 - Download main experiment wrapper, written in python
 - Working for ATLAS at BNL
- Will make main wrapper updates very easy to deploy
 - At the moment they are a pain
- Needs some testing, especially on gLite sites
- Does it have Peter's monitoring hooks yet?

Batch Support

- This has been a ‘slow train coming’
 - And it’s not quite arrived yet...
- Basic code to support batch system was released
 - Worked OK at Glasgow, but not at UTA
 - Sensitivity to torque privileges on factory host
 - Needs a large set of test sites and more developer effort
 - Main use case is to support for T3s

MultiBackend Support






- Aiming to support both batch and different condor flavours
- Internal queue configuration supports backend, type, subtype
 - Each backend has different submit/poll methods
 - May need extra configuration, e.g., torque user/queue
 - Type and subtype control JDL

Backend	Type	Subtype
condor	grid	gt2
condor	grid	cream
condor	vanilla	?
batch	torque	
batch	lsf	

Deployment

- CERN factories still seem plagued by crashes
 - Condor gridmanager memory use explodes
 - Machine hangs and gets rebooted by piquet
 - Impact more severe because of lack of init script
 - John's patches will help a lot here
- As far as I know this is only seen at CERN
 - Possibly some quirk of SLC vs. SL?
 - Condor team have not been able to reproduce this
- SLS monitoring of CERN factories would be very helpful

APF: Prioritised Work List?

- High: Local batch support - seems like its needed by the T3s, not so much work 
- High: Deliver and improve monitoring 
- Medium: More setup 'out of the box' 
- Medium: Thin pilot wrapper 
- Low: Factory foreman (bigger project) 

Future Factory

- I can't do more than bug fix the current branch
- Contributions from others encouraging
- But we really need a new captain!

Now the Captain called me to his bed
He fumbled for my hand
"Take these silver bars," he said
"I'm giving you command."
"Command of what, there's no one here
There's only you and me -
All the rest are dead or in retreat
Or with the enemy."

