

Global Job Monitor

Current Status and Plans

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Outline

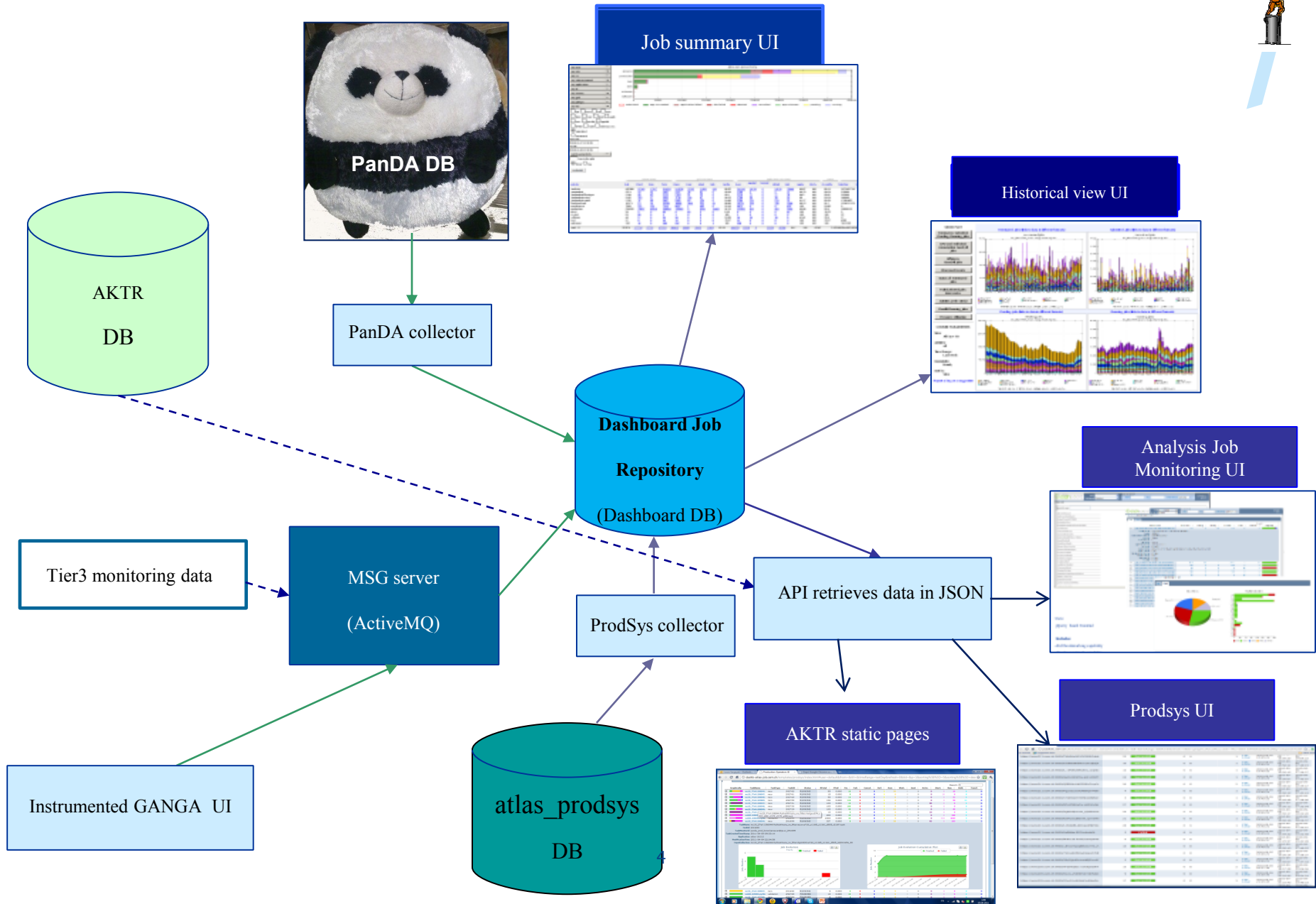
- Motivation
- Architecture of Global Job Monitor
- Results of consistency check
- Prodsys UI
- Plans



* **Motivation**

- * Use flexible structure of the sw components, which will provide easy support/maintenance in a long term
- * Use dashboard framework as a foundation for ATLAS job monitoring
- * Decrease load on operations PanDA DB
- * Fully decouple data source from the user interface

Architecture of Global Job monitoring



Most of user requests going through Monitoring DB

Panda DB is used for only operations and accessed by the PanDA operators only through the UI

Monitoring DB aggregates information from various sources

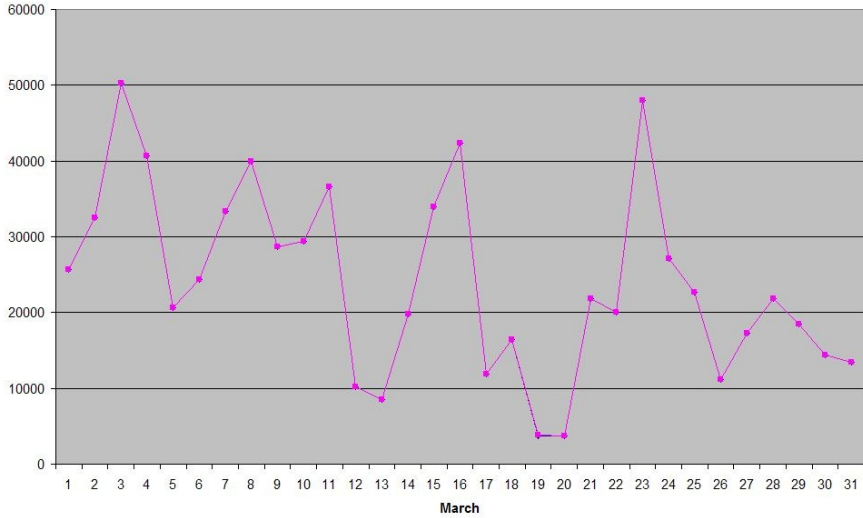
- Production DBs, meta data for production tasks
- GANGA jobs not going through PanDA

Potentially Tier3 jobs

Consistency!

Results of consistency check

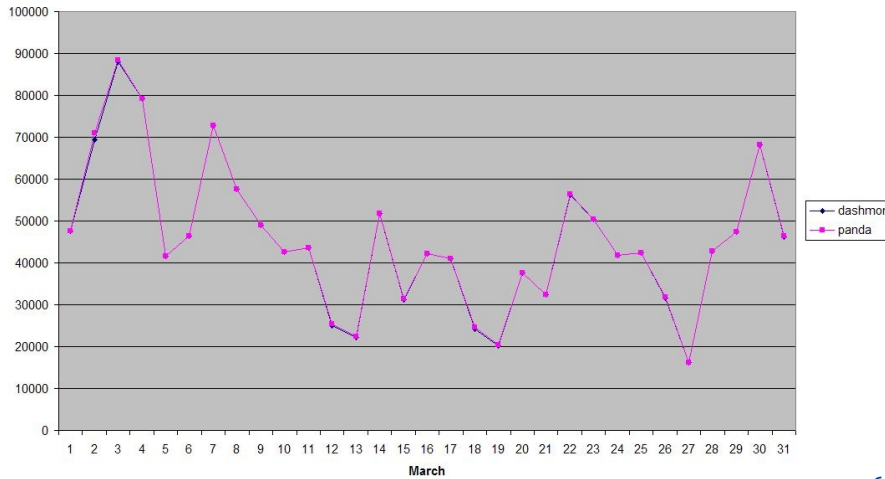
Cancelled Jobs (01-31 March)



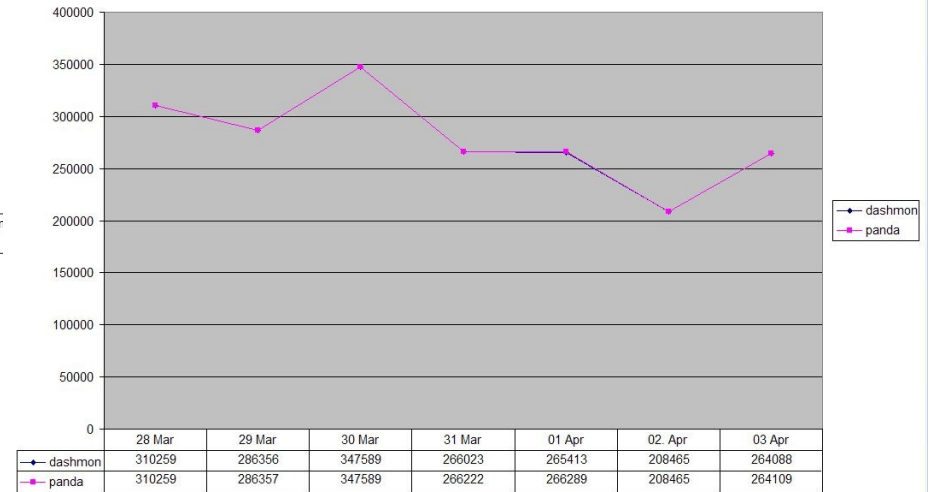
Finished Jobs (01-31 March)



Failed Jobs (01-31 March)



Terminated Jobs (28 March-03 April)



Prodsys UI (1/3)

Components

- Collectors:: Retrieve task/job data from PanDA and ProdSys DBs
- Dashboard DB: designed for monitoring, uses aggregated tables
- Web application level:
 - Information for UI available in JSON, XML format
User interface is implemented with jQuery
 - Common hBrowse framework for “Task monitoring for the analysis users” and production operators is used for the UI implementation
 - Design of the user interface is driven by the needs of the production operators (task oriented)
- URL <http://dashb-atlas-job.cern.ch/templates/prodsys/index.html>

Prodsys UI (2/3)

List of selected tasks with number of jobs per status

Columns can be sorted and grepped for a particular value

ATLAS dashboard REFRESH Disabled TIME RANGE FROM [] TILL [] TIME RANGE Last Day []

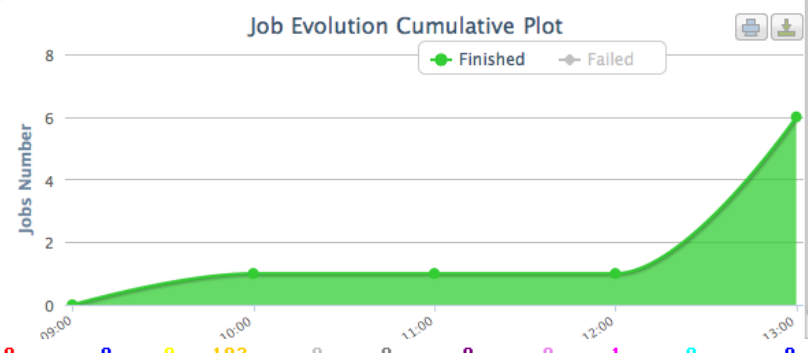
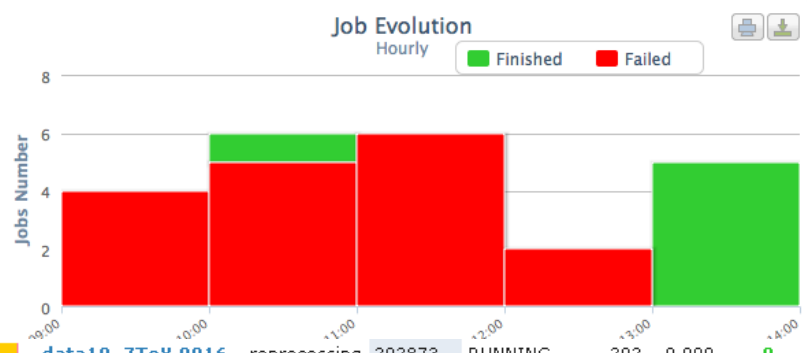
Tasks Filters Pattern [] Type of processing Off [] Task status Off [] Site Off [] Cloud Off [] Not modified since [] Submit

Filters : time range, processing type, task status, site, cloud not modified since...

Graphically	TaskName	TaskType	TaskID	Status	NTotal	PFail	Fin.	Fail.	Cancel.	Def.	Assi.	Wait.	Sent	Activ.	Start.	Run.	Hold.	Transf.
	data10_7TeV.0016	reprocessing	292888	RUNNING	810	0.000	10	0	0	0	18	0	0	732	0	50	0	0
	data10_7TeV.0016	reprocessing	292887	RUNNING	10	0.000	0	0	0	0	1	0	0	0	0	0	0	0
	data10_7TeV.0016	reprocessing	292886	RUNNING	1664	0.000	10	0	0	0	0	0	0	0	0	0	0	0
	data10_7TeV.0016	reprocessing	292885	RUNNING	2766	0.000	152	0	0	0	249	0	0	0	0	0	0	0
	data10_7TeV.0016	reprocessing	292884	RUNNING	2299	0.000	10	0	0	0	0	0	0	2289	0	0	0	0
	data10_7TeV.0016	reprocessing	292883	RUNNING	10	14.300	6	1	0	0	0	2	0	0	0	0	1	0

Task meta information

TaskName data10_7TeV.00162576.physics_Muons.recon.r2198.task
 TaskId 292883
 TaskMonitorId panda_prod_strandbe@umich.edu_292883
 TaskCreatedTimeStamp 2011-04-04 23:39:10
 Application atlas-16.6.2
 ModificationTime 2011-04-05 13:32:08
 InputCollection data10_7TeV.00162576.physics_Muons.merge.RAW



	data10_7TeV.0016	reprocessing	292873	RUNNING	202	0.000	0	0	0	0	192	0	0	0	0	1	0	0
	data10_7TeV.0016	reprocessing	292872	RUNNING	0	0.000	0	0	0	0	0	0	0	1855	0	235	0	0
	data10_7TeV.0016	reprocessing	292871	RUNNING	0	0.000	0	0	0	0	0	0	0	829	0	282	0	0

Task evolution in time

Prodsys UI (3/3)

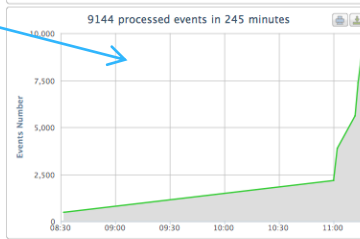
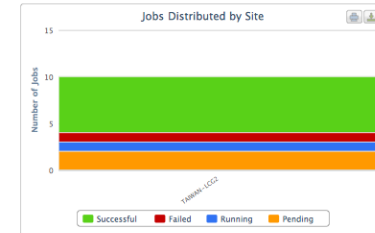
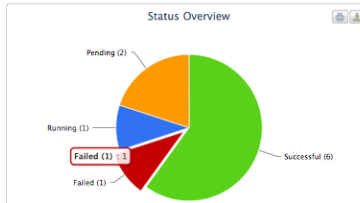
List of jobs for chosen task

Resubmission history

SchedulerJobId	Job Name	Job Status	Retries	Site	Submitted	Started	Finished
panda1216345235	data10_7TeV.00162576.physics_Mt	Pending	5	TAIWAN-LCG2	2011-04-05 12:54:46	1970-01-01 00:00:00	1970-01-01 00:00:00
panda1216325626	data10_7TeV.00162576.physics_Mt	Pending	5	TAIWAN-LCG2	2011-04-05 12:25:29	1970-01-01 00:00:00	1970-01-01 00:00:00
panda1216313888	data10_7TeV.00162576.physics_Mt	Failed	5	TAIWAN-LCG2	2011-04-05 12:04:19	2011-04-05 12:17:38	2011-04-05 12:30:20
panda1216310453	data10_7TeV.00162576.physics_Mt	Running	5	TAIWAN-LCG2	2011-04-05 11:54:55	2011-04-05 12:07:23	1970-01-01 00:00:00

SchedulerJobId	Id in Task	Appl Exit Code	Panda Exit Status	Panda Error Category	Site	Submitted	Started	Finished
panda1216310453	data10_7TeV.00162576.physics_Muons.recon.r2198_tid292883_000009.job	undefined	running	unknown	TAIWAN-LCG2	2011-04-05 11:54:55	2011-04-05 12:07:23	1970-01-01 00:00:00
panda1216283295	data10_7TeV.00162576.physics_Muons.recon.r2198_tid292883_000009.job	undefined	failed	pilot1099	TAIWAN-LCG2	2011-04-05 11:13:12	2011-04-05 11:22:04	2011-04-05 11:27:50
panda1216256538	data10_7TeV.00162576.physics_Muons.recon.r2198_tid292883_000009.job	undefined	failed	pilot1099	TAIWAN-LCG2	2011-04-05 10:34:53	2011-04-05 10:52:40	2011-04-05 10:57:43
panda1216220061	data10_7TeV.00162576.physics_Muons.recon.r2198_tid292883_000009.job	undefined	failed	pilot1099	TAIWAN-LCG2	2011-04-05 09:53:14	2011-04-05 10:08:12	2011-04-05 10:16:17
panda1216071617	data10_7TeV.00162576.physics_Muons.recon.r2198_tid292883_000009.job	undefined	failed	pilot1099	TAIWAN-LCG2	2011-04-05 00:05:58	2011-04-05 09:11:32	2011-04-05 09:24:42

SchedulerJobId Job Name
Showing 1 to 10 of 10 entries



of processed events

Distribution by site



Plans

- * Production operators UI
 - * Preparation data for production jobs in aggregated tables
- * Extend content of the information on the UI:
 - * Additional graphical distribution
 - * Detailed failure diagnostic
- * Overview page with plots :
 - * Accounting like page for production tasks



Prototype is up and running

<http://dashb-atlas-job.cern.ch/templates/prodsys/index.html>

Waiting for your feedback

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