

TI processing at CMS

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TI coordinator

TI coordinator oversees all processing of data and MC at TI sites

- ▶ Resource planning
- ▶ Support to requestors as they inject work
- ▶ Preparing and assigning workflows
- ▶ Recover problematic workflows
- ▶ Report any software problems uncovered
- ▶ Announce output datasets
- ▶ General dataset book-keeping
- ▶ Maintain overview of workload
- ▶ Identify and resolve problems affecting any part of the processing infrastructure

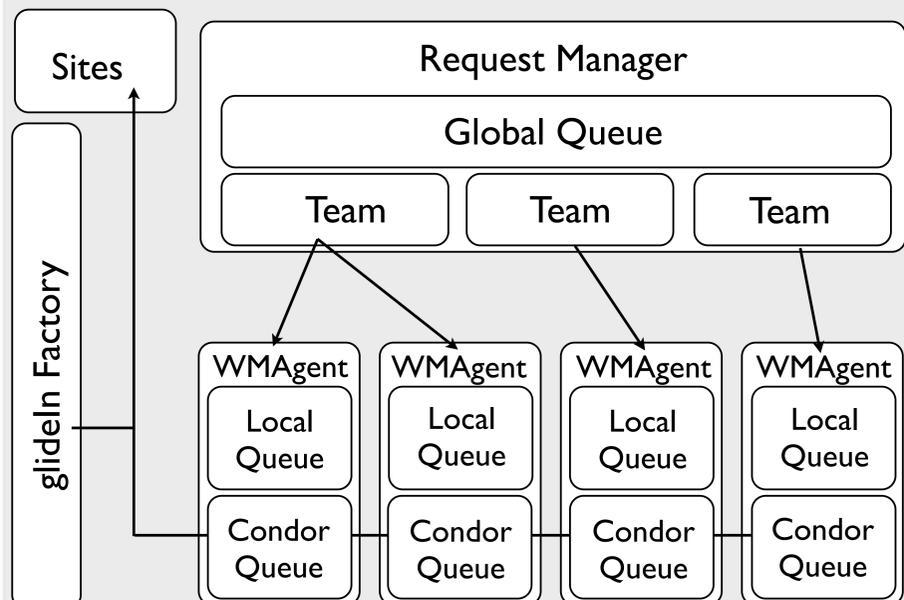
Request Manager

All workflow monitoring and actions take place in the Request Manager

- ▶ Workflow status
 - ▶ Percentage of workflow injected
 - ▶ Percentage completion of injected jobs
 - ▶ Number of jobs in each state
 - ▶ Site
- ▶ Actions
 - ▶ Approve workflows
 - ▶ Assign workflows
 - ▶ Close-out workflows
 - ▶ Announce workflows

Processing structure

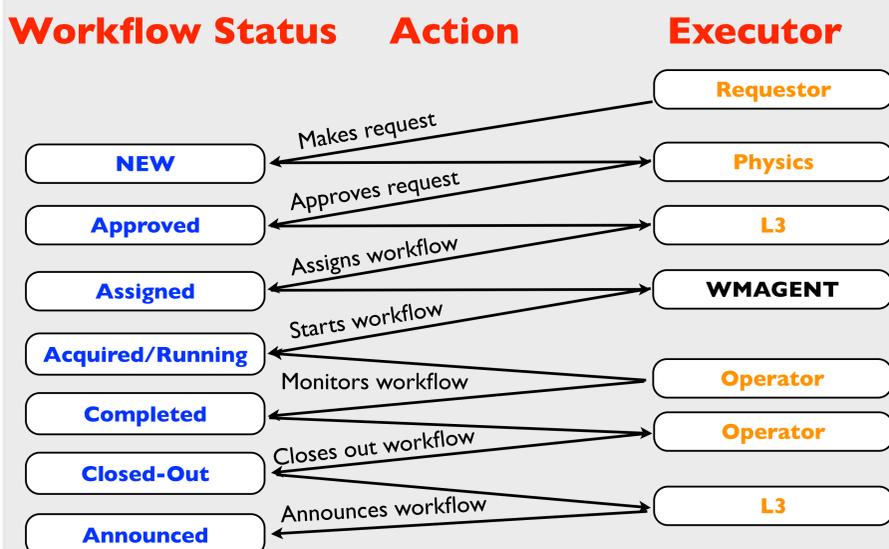
- ▶ Work is injected to the Request Manager
- ▶ It is assigned to one of the WMAgents via a team
- ▶ A team for each purpose: tI, mc and relval
- ▶ The WMAgents submit jobs to the sites



request name	status	type	queued	cool off	pending	running	success	failure	summary	job completion	queue injection	SW	GQ	LQ
linacre_HIG-Fall11_R1-00348_T1_IT_CNAF_MSS_111119_005729	acquired	ReDigi	0	0	0	0	0	0	No Jobs	0.0% (0/0)	0.0% (0/203)	T1_IT_CNAF	GQ	N/A
linacre_2011B_442p2_DataReprocessingLocalNZS_111119_010333	acquired	ReReco	0	0	0	0	0	0	No Jobs	0.0% (0/0)	0.0% (0/21333)	T1_US_FNAL	GQ	N/A
linacre_2011B_442p2_DataReprocessingPhotonHad_111119_010349	running	ReReco	27	0	12	482	6352	0	summary	92.4% (8352/8976)	52.0% (4331/8331)	T1_TW_ASGC	GQ	LQ
linacre_2011B_442p2_DataReprocessingPhoton_111119_010347	running	ReReco	131	0	0	2858	9043	724	summary	78.5% (8767/12787)	100.0% (8331/8331)	T1_DE_KIT	GQ	LQ
linacre_BTV-Fall11_R1-00005_T1_IT_CNAF_MSS_111119_001313	running	ReDigi	265	0	0	493	893	6	summary	54.2% (890/1600)	80.9% (1657/2720)	T1_IT_CNAF	GQ	LQ
linacre_2011B_442p2_DataReprocessingSingleElectron_111119_010350	running	ReReco	105	0	497	0	0	0	summary	0.0% (0/002)	10.9% (908/8331)	T1_UK_RAL	GQ	LQ
linacre_2011B_442p2_DataReprocessingDoubleElectron_111119_010327	running	ReReco	0	0	1283	611	378	0	summary	18.8% (378/2253)	44.4% (3695/8331)	T1_FR_CCIN2P3	GQ	LQ
linacre_2011B_442p2_DataReprocessingSingleMu_111119_010352	running	ReReco	66	0	8	491	1031	0	summary	84.8% (1031/1506)	15.1% (1258/8331)	T1_ES_PIC	GQ	LQ
linacre_2011A_442p2_DataReprocessingTauPlusX_111119_005720	running	ReReco	121	0	74	900	1237	3	summary	52.8% (1240/2349)	30.1% (8850/19449)	T1_US_FNAL	GQ	LQ
linacre_2011B_442p2_DataReprocessingJet_111119_010336	running	ReReco	8	0	574	527	14836	1	summary	93.0% (14837/15948)	100.0% (8331/8331)	T1_FR_CCIN2P3	GQ	LQ

Actions

- ▶ Actions taken in the various states as a workflow progresses to completion



Agent Location	status	acdc
cmsrv94.fnal.gov:9999	ok	acdc
vocms121.cern.ch:9999	ok	acdc
vocms202.cern.ch:9999	down	acdc

Site	Pending	Running	Complete	Error	Success	Failure	Cool Off	Job Slots
T1_UK_RAL	1324	768	0	0	0	0	0	3500
T2_UK_London_IC	9	1	0	0	0	0	0	10
T1_ES_PIC	10	492	0	0	16	0	0	510
T1_DE_KIT	29	2841	0	0	70	0	0	3000
T1_FR_CCIN2P3	1867	1120	0	0	58	0	0	3000
T1_IT_CNAF	2	498	0	0	12	0	0	500
T1_TW_ASGC	18	482	0	0	20	0	0	500
T1_US_FNAL	48	939	0	0	117	0	0	1000

Development

- ▶ Request Manager was recently moved to cmsweb
- ▶ Improved monitoring
- ▶ Improved security
- ▶ At the same time we moved to WMAgent 0.8.x

Recent campaigns

- ▶ Data:
- ▶ MC: AODSIM, GEN-SIM-RECO and DQM
 - ▶ 2200 Summer11 samples, 2.6B events
 - ▶ 1000 Fall11 samples so far in both CMSSW 4_2 and CMSSW 4_4: 1B events each