



DAQ Detector Algorithms

Current status

Sylvain Chapeland – CERN PH/AID



Outline

- Feb'08 Cosmic run
- Framework news
- Plans



DAQ DA in Feb'08 Cosmic Run



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- All requests to build, install and configure for production DA fulfilled
- In the end:
 - 14 DA in production
 - 3 DA installed for testing
- 3 DA from AliRoot release, 14 from (various) trunk
- 1300 runs.detector with DA output (out of 4283 runs)
- 3071 DA result files exported to Shuttle



DAQ DA in Feb'08 Cosmic Run



- Files produced and exported by DAs to File Exchange Server

Detector	Number of Runs with DA output	Number of Files Exported to FXS
MCH	175	392
SDD	15	30
SPD	162	644
SSD	24	51
T00	458	879
TOF	455	912
TPC	11	163



DAQ DA in Feb'08 Cosmic Run - *production*

Detector	Run type	Partition	Target	In Production	RPM version	Activity in Feb08 Run	Notes
TOF	physics	Global	MON - aldaqdm12	Yes	daqDA-TOF-23992-trunk.24031	Yes	
SPD	physics	Global	MON - aldaqdm10	Yes	daqDA-SPD-PHYS-23683-v4.10.Release.23703	Yes	Some fixes needed.
T0	physics	Global	MON - aldaqdm14	Yes	daqDA-T00-Phys-24021-v4.11.Release.24189	Yes	
T0	cosmic	Global	MON - aldaqdm14	Yes	daqDA-T00-Cosmic-24071-v4.11.Release.24189	Yes	
SDD	pedestal	Standalone	LDC	Yes	daqDA-SDD-BAS-23455-trunk.23885	Yes	
SDD	pulser	Standalone	LDC	Yes	daqDA-SDD-GAIN-23455-trunk.23885	Yes	
SDD	injector	Standalone	LDC	Yes	daqDA-SDD-INJ-24244-trunk.24252	Yes	
SPD	scan	Standalone	LDC	Yes	daqDA-SPD-SCAN-23991-trunk.24031	Yes	
SSD	pedestal	Standalone	LDC	Yes	daqDA-SSD-PED-24347-trunk.24349	Yes	
MUON_TRK	pedestal	Standalone	LDC	Yes	daqDA-MCH-24136-trunk.2414	Yes	
TOF	pulser	Standalone	LDC	Yes	daqDA-TOF-pulser-23878-trunk.24031	Yes	
TOF	noise	Standalone	LDC	Yes	daqDA-TOF-noise-23878-trunk.24031	Yes	
TPC	pedestal	Standalone	LDC	Yes	daqDA-TPC-PEDESTAL-24033-trunk.24083	Yes	
TPC	pulser	Standalone	LDC	Yes	daqDA-TPC-PULSER-24033-trunk.24083	Yes	



DAQ DA in Feb'08 Cosmic Run – *under test*



Detector	Run type	Partition	Target	In Production	RPM version	Activity in Feb08 Run	Notes
TPC	laser	Standalone	MON - aldaqmqm11	No	daqDA-TPC-CE- 24033- trunk.24083	Yes	Laser not available for tests.
HMPID	calibration	Standalone	LDC	No	daqDA-HMP- 23999- trunk.24148	Yes	installed and tested on files, but not configured for production yet
V0	pedestal	Standalone	LDC	No	daqDA-V00- 24089- trunk.24181.i38 6.rpm	Yes	installed and tested on files, but not configured for production yet



DAQ DA in Feb'08 Cosmic Run – *unused code*

Detector	Run type	Partition	Target	In Production	RPM version	Activity in Feb08 Run	Notes
FMD	gain	Standalone	LDC	No	daqDA-FMD-gains-0.2-2	No	Unknown status. Not yet in Aliroot. ECS run implemented.
FMD	pedestal	Standalone	LDC	No	daqDA-FMD-pedestals-0.2-2	No	Unknown status. Not yet in Aliroot. ECS run implemented.
TRD	pedestal	Standalone	LDC	No	daqDA-TRD-PEDESTAL-1.7-HEAD_2007.12.17	No	Unknown status.
TRD	physics	Standalone	MON - aldaqdqm15	No	daqDA-TRD-VDRIFT-1.7-HEAD_2007.12.17	No	Unknown status.
ZDC	pedestal	Standalone	MON - aldaqdqm13	No	daqDA-ZDC-PEDESTAL-1.5-HEAD_2007.12.13	No	Unknown status.
ZDC	EMD	Standalone	MON - aldaqdqm13	No	daqDA-ZDC-EMD-1.3-HEAD_2007.12.13	No	Unknown status. ECS run implemented.

Note: these 3 tables contain only the DAs which were requested to be installed by the detector teams at P2 since 1st December 2007.



DAQ DA - status overview (jan 08)



	A C O R D E	C P V	E M C a I	F M D	H M P I D	M U O N - T R G	M U O N - T R K	P H O S	P M D	S D D	S P D	S S D	T O	T O F	T P C	T R D	V O	Z D C
Code existing (number of DAs)	0	0	0	2	1	1	1	1	1	3	2	1	2	3	4	2	0	2
DAs in Aliroot																		
Validation requested																		
Test file available																		
RPM documentation available																		
Corresponding ECS run types defined																		
Packaging and interface validated																		
DA installed at Point 2																		
DA tested manually ok on real data																		
DA in production															1			



DAQ DA - status overview (mar 08)



x: no recent activity

	A C O R D E	C P V	E M C a I	F M D	H M P I D	M U O N - T R G	M U O N - T R K	P H O S	P M D	S D D	S P D	S S D	T O	T O F	T P C	T R D	V O	Z D C
Code existing (number of DAs)	0	0	0	2	1	1	1	1	1	3	2	1	2	3	3	2	1	2
DAs in Aliroot																		
Validation requested																		
Test file available																		
RPM documentation available																		
Corresponding ECS run types defined																		
Packaging and interface validated																		
DA installed at Point 2				X												X		X
DA tested manually ok on real data																		
DA in production							1			3	2	1	2	3	2			



Feb'08 run - DA summary



- Good progress, many DAs now configured for production
- Still few DAs used regularly
- Manual read access to FXS for debugging – on demand
- All DA code should go to Aliroot release
 - but still flexible for new developments (trunk)
- Contact alice-datesupport@cern.ch for DAs validation and installation at P2
 - *procedure to be initiated by detector teams*



DA Framework news



- DAQ detector database (for config files)
 - daqDetDB browser: GUI to add/remove/edit files in the DAQ detector DB
 - C interface includes write access to DAQdetDB
 - Automatic shipping of flagged files at SOR upon changes (in progress)
- Logbook/Shuttle interface updated:
 - Shuttle table filled at EOR
 - ECS+DAQ EOR status
 - Automatic handling of rare runs without end time (watchdog process)
 - EOR trigger after ECS EOR by DIM service

New framework features available since last DAQ/ECS software release (3/4/2008)



DA Framework news



181 files, total size 17283072 bytes

Detector	File	Size
SSD	initZSmem520.scr	1075
SSD	initZSmem521.scr	1075
SSD	initZSmem522.scr	1075
SSD	initZSmem522.src	1055
SSD	initZSmem523.scr	1075
SSD	initZSmem524.scr	1075
SSD	initZSmem525.scr	1075
SSD	initZSmem526.scr	1075
SSD	initZSmem527.scr	1075
SSD	LmReg	33
SSD	NoSupr	110592
SSD	notm	15
SSD	PedSet	110592
SSD	ssdSlot_1	110592
SSD	ssdSlot_2	110592
SSD	ssdSlot_3	110592

Get Store Edit Remove Refresh Quit

Screenshot: DB file browser

Available with detector account login on ACR machines



Plans



- Re-deploy all DAs from next Aliroot release
- Continue to validate and configure for production new DAs on detectors ' request
- DB access from DCS VME CPUs
 - Software deployment issues to clarify with TRG team
- Some work in progress for HMPID, TRD, V0, MUON_TRG
- Ideas of future developments:
 - Launch and monitoring facilities
 - Execution log of DAs in logbook