

Shifter's responsibilities for the Offline systems

The DQM/Offline shifter controls the following Offline systems:

- ▶ the RAW data flow (only registration and replication)
- ▶ the Shuttle

by means of:

- ▶ the dashboard
- ▶ the MonALISA Shuttle monitoring page

and takes appropriate actions, as detailed in the following and in

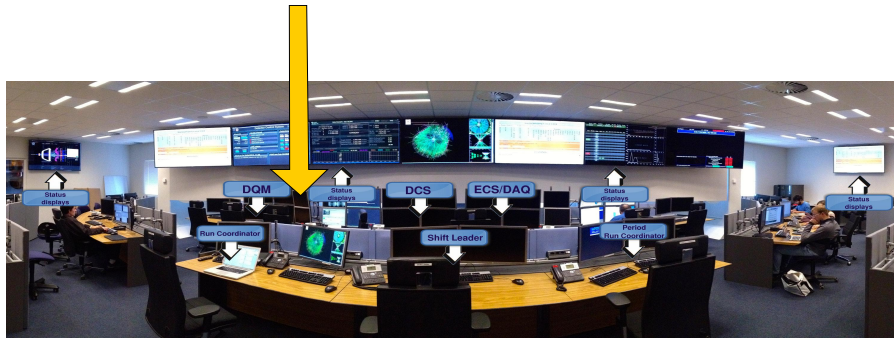
- ▶ the shifters' manual in the ALOSHI pages.

The DQM/Offline shifter's duties are listed in the shifter's checklist.



The Offline station

The Offline station is the small screen at the right of the DQM screens.
As Offline shifter you have autologin on the Offline station (**arcoff01**).
This means you don't need a password to login.



RAW data



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RAW data flow

A: P2 \Rightarrow CASTOR disk

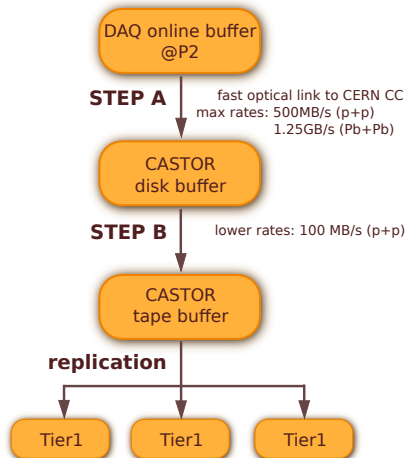
RAW data are transferred from DAQ to CASTOR disk (at different rates).

B: CASTOR disk \Rightarrow CASTOR tape

Physics runs' RAW data are copied to CASTOR tape (at lower rates).

Replication

RAW data are transferred to Tier1s.



From P2 to CASTOR disk

- ➡ Automatic and well exercised (it almost never goes wrong)
- ➡ DAQ is nominally responsible for the transfers
 - ➡ If not working, DAQ/SL notifies the shifter and/or the alice-shift-alarms@cern.ch expert list
- ➡ Offline provides the gateway for registering the files in the AliEn File Catalogue

Shifter's duties:

- ➡ follow the registration of RAW data [▶ see dashboard](#) If the registration is too far behind the data taking (>2 hours after EOR) clarify with ECS/DAQ shifter and/or shift leader or check yourself in the logbook (Run→Statistics→Data Migrated). In case of issue notify the Offline on-call.



⚠ Note: in case of many small runs (cosmics) it is possible that they are not transferred to CASTOR for a long time (e.g. 24h) because the DAQ buffer is not full enough to trigger the transfer. ➡ Raise no alarm in this case. Again contact the ECS/DAQ shifter, verify the situation, and in case of a delay > 24 hours you can propose to trigger manually the transfer.

⚠ Note: the shifter is supposed to follow the raw data flow of PHYSICS runs, while raw data for other run types might differ (e.g. no replication). Following the raw data flow for other run types might be relevant in the sense that it can point to issues of general interest (e.g. CASTOR issues).



From CASTOR disk to CASTOR tape


- ➡ All PHYSICS data get copied to tape. No action required from the shifter.



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- After RAW is recorded to tape in CASTOR a copy is made to two remote T1 centres for custodial storage and processing
 - The replication is an automatic process, triggered at EoR
 - Progress is displayed on the dashboard:
 - “Transfer to Tier1s” plot
 - “Full details” of “Raw data registration” → “Transfer status” column
- Shifter’s responsibility:
 - the process is fully automatized
 - if PHYSICS runs are not replicated in the last 12 hours, add a note in the EOS report (mentioning run numbers) and send list of stuck runs also to alice-shift-alarms@cern.ch



 Note: runs shorter than five minutes are not replicated and not reconstructed automatically.



The Shuttle



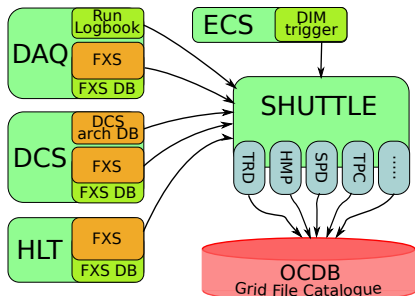
- ➡ The Shuttle: short description
- ➡ The Shuttle status (online/offline)
- ➡ The MonAlisa Shuttle web page
- ➡ How to read the Logs
- ➡ The Detectors Preprocessors Flow
- ➡ What to do in case of failures



Shuttle and Preprocessors

The Shuttle is the ALICE Online-Offline software framework. It steers detector specific procedures (**preprocessors**) to:

- ▶ extract conditions (calibration and alignment) from on-line systems
- ▶ consolidate them and
- ▶ upload them to the OCDB



Monitoring the Shuttle

- Quick overview from the dashboard.
- Full view from the MonAlisa Shuttle monitoring page.
- Linked also from the navigation section of the MonAlisa main page: Shuttle Production@P2

ALICE Repository

- Google Map
- Shifter's dashboard
- Run Condition Table
- Production Overview
- Production info
- Job Information
- SE Information
- Services
- Network Traffic
- FTD Transfers
- Calibration

SHUTTLE

- Production@P2
- Peak monitoring
- Build system
- HelpDoc
- Dynamic charts

ALICE

MonALISA

My jobs | My home dir | Catalogue browser | Repository stats

Monitoring for SHUTTLE for data taking at Point2 (click here to go to the test setup)
SHUTTLE running ARRoot version v5-02-Rev-27 (rev. #58455)
SHUTTLE statistics (current status: ONLINE, processing run: 189380, unprocessed runs: 1)
DCS errors/last hour: 0, FKS errors/last hour: 0, GRP failures/last hour: 0, OCDB errors/last hour: 0

Run#	Run type	First seen	Last seen	SHUTTLE	ACC	EMC	FWD	GRP	HLT
189380	TECHNICAL	today 12:24	today 12:25	Done 0	Skipped(1) 0	Skipped(1) 0		Skipped(1) 0	Done(1) 0
189379	TECHNICAL	today 11:28	today 11:29	Done 0	Skipped(1) 0	Skipped(1) 0	Skipped(1) 0	Skipped(1) 0	Done(1) 0
189378	STANDALONE_PEDESTAL	today 11:21	today 11:22	Done 0				Skipped(1) 0	Done(1) 0
189377	TECHNICAL	today 11:20	today 11:20	Done 0	Skipped(1) 0	Skipped(1) 0	Skipped(1) 0	Skipped(1) 0	Done(1) 0
189376	TECHNICAL	today 11:07	today 11:07	Skipped					
189375	TECHNICAL	today 10:57	today 10:57	Skipped					
189374	STANDALONE_PEDESTAL	today 10:28	today 10:29	Done 0				Skipped(1) 0	Done(1) 0
189373	PEDESTAL	today 10:07	today 10:09	Done 0				Done(1) 0	Done(1) 0
189372	PEDESTAL	today 10:14	today 10:16	Done 0				Done(1) 0	Done(1) 0
189371	CALIBRATION	today 10:06	today 10:07	Done 0				Done(1) 0	Done(1) 0
189370	STANDALONE_PEDESTAL	today 10:05	today 10:06	Done 0				Skipped(1) 0	Done(1) 0
189369	PULSER	today 09:58	today 10:05	Done 0				Done(1) 0	Done(1) 0
189368	PEDESTAL	today 09:56	today 09:58	Done 0				Done(1) 0	Done(1) 0
189367	PEDESTAL	today 09:53	today 09:56	Done 0		Done(1) 0		Done(1) 0	Done(1) 0
189366	PHYSICS	today 09:40	today 09:53	Done 0				Done(1) 0	Done(1) 0
189365	PHYSICS	today 09:06	today 09:19	Done 0				Done(1) 0	Done(1) 0
189364	PHYSICS	today 07:58	today 08:12	Done 0				Done(1) 0	Done(1) 0
189363	PHYSICS	today 06:10	today 07:09	Done 0		Done(1) 0		Done(1) 0	Done(1) 0
189361	STANDALONE	today 02:47	today 02:47	Skipped					
189360	PEDESTAL	today 02:44	today 02:46	Done 0				Done(1) 0	Done(1) 0
189359	PHYSICS	today 02:57	today 04:15	Done 0				Done(1) 0	Done(1) 0
189358	PHYSICS	today 01:38	today 01:54	Done 0				Done(1) 0	Done(1) 0
189357	PHYSICS	today 00:59	today 01:19	Done 0				Done(1) 0	Done(1) 0
189356	PHYSICS	today 00:49	today 01:19	Done 0				Done(1) 0	Done(1) 0
189355	PHYSICS	yesterday 23:45	yesterday 23:53	Done 0				Done(1) 0	Done(1) 0
189354	PULSER	yesterday 23:17	yesterday 23:17	Done 0				Skipped(1) 0	Done(1) 0
189353	PULSER	yesterday 23:04	yesterday 23:07	Done 0				Done(1) 0	Done(1) 0
189352	PULSER	yesterday 22:53	yesterday 22:55	Done 0				Done(1) 0	Done(1) 0

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Running jobs trend

Running jobs trend
248 129 0 0
(Click arrow for detailed view)



Shuttle **online**/offline state

The MonALISA Shuttle pages show the state of the Shuttle:

- it is either **offline** or **online**
- the **offline** state is already the result of a failed automatic restarting procedure

Monitoring for SHUTTLE for data taking at Pn100 (click here to go to the test setup)

SHUTTLE running ALRoot version v5-05-Rev-17 (prod_2260c74)

SHUTTLE status: ONLINE, processing run: 20

DCS errors/last hour: 0, FKS errors/last hour: 0, ODB errors/last hour: 0

Run#	Run type	First seen	Last seen	SHUTTLE	ACO	EMC	FMD	GRP	HLT	HMP	MCH	MTR	PHS	CPV	PMD	SPD	SDD	SSD	TPC	TRD	TRI	T00	V00	ZDC
205045	STANDALONE	today 17:34	today 17:34	Skipped																				
205044	STANDALONE	today 17:23	today 17:23	Skipped																				
205043	STANDALONE	today 17:23	today 17:23	Done (100%)																				
205042	STANDALONE	today 17:15	today 17:15	Skipped																				
205041	STANDALONE	today 17:15	today 17:15	Skipped																				
205040	STANDALONE	today 17:15	today 17:15	Skipped																				
205039	STANDALONE	today 17:08	today 17:08	Skipped																				
205032	STANDALONE	today 16:08	today 16:08	Skipped																				
205031	STANDALONE	today 16:08	today 16:08	Skipped																				

Keep regularly an eye on the Shuttle state and call the Offline on-call in case it is **offline**.



Monitoring the Shuttle



MonALISA Repos

Monitoring for SHUTTLE for data taking at Point2 (click [here](#) to go to the test setup)
SHUTTLE running AliRoot version v5-07-Feb-27 (rev. #58469)
SHUTTLE statistics (current status: **ONLINE**, processing run: **188404**, unprocessed runs: **0**)
DCS errors/last hour: **0** FXS errors/last hour: **0** GRP failures/last hour: **0** OCDB errors/last hour: **0**

Online/Offline
current AliRoot version
currently processed run
number of unprocessed runs

latest DCS errors
latest FXS errors
latest GRP failures
latest OCDB failures

Run#	Run type	First seen	Last seen	SHUTTLE	ACO	EMC	FMD	GRP	HLT	HMP
			Last day							
		today 08:57	today 08:58	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
		today 08:38	today 08:38	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
		today 07:29	today 07:29	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188401	PEDESTAL	today 05:35	today 05:39	Done h	Skipped (1) h	Skipped (1) h		Done (1) h	Done (1) h	Skipped (1)
188400	PEDESTAL			Done (1) h	Skipped (1) h	Skipped (1) h		Done (1) h	Done (1) h	Skipped (1)
188399	TECHNICAL			Skipped (1) h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188398	TECHNICAL			Skipped (1) h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188397	TECHNICAL	today 01:53	today 01:53	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188396	TECHNICAL	today 01:41	today 01:42	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188395	TECHNICAL	yesterday 23:53	yesterday 23:53	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188394	TECHNICAL	yesterday 22:27	yesterday 22:27	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188393	TECHNICAL	yesterday 22:08	yesterday 22:08	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188392	TECHNICAL	yesterday 20:52	yesterday 20:53	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188391	TECHNICAL	yesterday 18:28	yesterday 18:29	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188390	CALIBRATION_BC	yesterday 18:06	yesterday 18:13	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188389	TECHNICAL	yesterday 18:06	yesterday 18:06	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188388	TECHNICAL	yesterday 17:29	yesterday 17:29	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)
188387	TECHNICAL	yesterday 16:21	yesterday 16:22	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h	Skipped (1)

EMC: Run number: 188394
TECHNICAL

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Monitoring the Shuttle



MonALISA Repository for ALICE

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ALICE Repository

- ALICE Repository
- Google Map
- Shifter's dashboard
- Run Condition Table
- Production Overview
- Production Info
- Job Information
- SE Information
- Services
- Network Traffic
- FTD Transfers
- CAF Monitoring
- SHUTTLE
- Build system
- HepSpec
- Dynamic charts

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Running jobs trend



Monitoring for SHUTTLE for data taking at Point2 (click [here](#) to go to the test setup)

SHUTTLE running ~~ALICE~~ version **V5-05-REV-28** (rev. #60c981b)

SHUTTLE statistics (current status: **ONLINE**, processing run: **210066**, unprocessed runs: **1**)

DCS errors/last hour: 0, FXS errors/last hour: 1, GRP failures/last hour: 0, OCDB errors/last hour: 0

Run#	Run type	First seen	Last seen	SHUTTLE	ACO	AD0	EMC	FMD	GRP	HLT	HMP	MCH	MTR	PHS	CPV	PMD	SPD
			last day														
210066	TECHNICAL	today 15:07	today 15:07	Done h					Skipped (1) h								
210065	TECHNICAL	today 15:06	today 15:07	Done h					Skipped (1) h								
210063	STANDALONE	today 14:52	today 14:52	Skipped													
210062	STANDALONE	today 14:49	today 14:49	Skipped													
210057	STANDALONE_PULSER	today 14:32	today 14:34	Done h					Done (1) h								
210056	TECHNICAL	today 13:35	today 13:35	Done h					Skipped (1) h								
210055	STANDALONE_PULSER	today 13:38	today 13:39	Done h					Done (1) h								
210054	TECHNICAL	today 13:35	today 13:35	Done h					Skipped (1) h								
210053	STANDALONE_PULSER	today 13:32	today 13:35	Done h					Done (1) h								
210052	TECHNICAL	today 13:32	today 13:32	Done h					Skipped (1) h								
210051	STANDALONE_PULSER	today 13:30	today 13:32	Done h					Done (1) h								
210050	STANDALONE_PULSER	today 13:26	today 13:28	Done h					Done (1) h								
210049	STANDALONE_PULSER	today 13:24	today 13:26	Done h					Done (1) h								
210048	STANDALONE	today 13:22	today 13:22	Skipped													
210047	STANDALONE_BC	today 13:21	today 13:22	Done h					Done (1) h								
210046	STANDALONE_BC	today 13:07	today 13:07	Skipped													

ADD: Run number: 210052
TECHNICAL



Monitoring the Shuttle

general info		preprocessors' columns				
Last seen	SHUTTLE	ACO	EMC	FMD	GRP	HLT
today 08:58	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h
today 08:38	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h
today 07:29	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h
today 05:39	Done h				Done (1) h	Done (1) h
today 05:25	Done h				Done (1) h	Done (1) h
today 05:19	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h
today 05:17	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h
today 01:53	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h
today 01:42	Done h	Skipped (1) h	Skipped (1) h		Skipped (1) h	Done (1) h

Messages can come either from the Shuttle or from the preprocessors.

```

2012-09-14 03:35:49 UTC (2906): GRP - run 188401 - Process - Starting processing
I-AliShuttle::Log: 2012-09-14 03:35:49 UTC (27935): SHUTTLE - run 188401 - Executing TGrid::Connect
-> Trying to connect to server [0] root://alice.cern.ch:18000 as User alidag
I-AliShuttle::Log: 2012-09-14 03:35:49 UTC (27935): SHUTTLE - run 188401 - ProcessCurrentDetector - Retrieving values for GRP, run 188401
I-AliShuttle::Log: 2012-09-14 03:35:49 UTC (27935): SHUTTLE - run 188401 - CleanReferenceStorage - Cleaning /home/shuttle/SHUTTLE_PROD/SHUTTLE_LocalShuttleRefStorage/GRP
I-AliShuttle::Log: 2012-09-14 03:35:49 UTC (27935): GRP - run 188401 - Checking if run type PEDESTAL is in the list of run types to be processed by this preprocessor...
I-AliShuttle::Log: 2012-09-14 03:35:49 UTC (27935): GRP - run 188401 - Run type found. Processing this run.
I-TFile::OpenFromCache: using local cache copy of /alien/alice/data/2012/OCDB/GRP/CTP/DummyConfig/Run0_999999999_v1_s0.root [/tmp/OCDBCache//alice/data/2012/OCDB/GRP/CTP/Dum
I-AliGRPPreprocessor::Initialize: Initialization of the GRP preprocessor.
I-AliGRPPreprocessor::Initialize: Start Time DCS = 1347592864
I-AliGRPPreprocessor::Initialize: End Time DCS = 1347593013
I-AliGRPPreprocessor::Initialize: Pressure Entries: 3
I-AliShuttle::Log: 2012-09-14 03:35:49 UTC (27935): SHUTTLE - run 188401 - UpdateShuttleStatus - GRP: Changing state from Started to DCSStarted
I-AliShuttle::Log: 2012-09-14 03:35:50 UTC (27935): GRP - run 188401 - ProcessCurrentDetector - Querying DCS Amanda server alidcsamanda.cern.ch:1337 (1 of 1)
I-AliShuttle::Log: 2012-09-14 03:35:50 UTC (27935): GRP - run 188401 - Querying 47 DCS aliases
I-AliDCSClient::GetValues: Retrieved entries 0.46 (total 0.46); E.g. L3Current has 7 values collected
I-AliShuttle::Log: 2012-09-14 03:35:52 UTC (27935): SHUTTLE - run 188401 - UpdateShuttleStatus - GRP: Changing state from DCSStarted to PPStarted
I-AliShuttle::Log: 2012-09-14 03:35:53 UTC (27935): GRP - run 188401 - ***** Processing DAQ logbook
I-AliShuttle::Log: 2012-09-14 03:35:53 UTC (27935): GRP - run 188401 - Start time for run 188401: 1347592936
I-AliShuttle::Log: 2012-09-14 03:35:53 UTC (27935): GRP - run 188401 - End time for run 188401: 1347592960
I-AliShuttle::Log: 2012-09-14 03:35:53 UTC (27935): GRP - run 188401 - Beam Energy for run 188401: 4000.000000 (NOT USING IT TO FILL THE GRP OBJECT, taking it from the LHC f
I-AliShuttle::Log: 2012-09-14 03:35:53 UTC (27935): GRP - run 188401 - Beam Type for run 188401: p-p (NOT USING IT TO FILL THE GRP OBJECT, taking it from the LHC file)
I-AliShuttle::Log: 2012-09-14 03:35:53 UTC (27935): GRP - run 188401 - Number Of Detectors for run 188401: 1
I-AliShuttle::Log: 2012-09-14 03:35:53 UTC (27935): GRP - run 188401 - Detector Mask for run 188401: 1024
I-AliShuttle::Log: 2012-09-14 03:35:53 UTC (27935): GRP - run 188401 - LHC period (DAQ) for run 188401: LHC12g
    
```



- ➡ Logs are available per run for all preprocessors involved in the run (active detectors interested in the run type):
click on status (**Done**, **Failed**) at run (row) – DET (column) intersection.



- Every information is associated with a timestamp which is expressed in UTC \Rightarrow corresponds to Geneva time **minus one hour in winter**, **minus two hours in summer**
- ➡ The Shuttle steering process appears in the table as all preprocessors, its logs are accessible in the same way
- ➡ In case of failure, an email is automatically sent to a list of responsables (the recipients' email addresses are listed at the end of the log)

- Each preprocessor sets (in its code) the run types of interest
- Only runs taken within the ECS framework can be processed by the Shuttle (not runs from the DAQ Run Control)
- The GRP preprocessor is run only for a subset of **run types**
- Two different error codes conventions for:
 - ➔ preprocessors `AliDETPreprocessor::Process`
 - ✓ exit code 0 \Leftrightarrow success
 - ✗ exit code >0 \Leftrightarrow failure
 - ➔ AliShuttle steering method `AliShuttle::ProcessCurrentDetector`
 - ✓ 1 \Leftrightarrow success
 - ✗ 0 \Leftrightarrow failure

In practice:

➡ Process - Client process of 192029 - DET is exiting now with 1.

⇔ the preprocessor for DET was processed successfully

➡ I-AliShuttle::Log: 2012-11-08 17:04:04 UTC (16044): DET - run 191760 - ProcessCurrentDetector - Preprocessor failed. Process returned 1.
I-AliShuttle::Log: 2012-11-08 17:04:04 UTC (16044): Shuttle - run 191760 - UpdateShuttleStatus - DET: Changing state from PPstarted to PPErrror
I-AliShuttle::Log: 2012-11-08 17:04:04 UTC (16044): Shuttle - run 191760 - ***** run 191760 - DET: ERROR *****

I-AliShuttle::Log: 2012-11-08 17:04:04 UTC (16044): Shuttle - run 191760 - Process - Client process of 191760 - DET is exiting now with 0.

⇔ the preprocessor for DET failed.

When to take action

- ⚠ Take action for **GRP**, **DCS** and **FXS** errors → see next slides. In particular keep an eye on the heading of the monitoring page (if the line summing up the errors in the last hour is red).
- ⚠ If not solved, those errors prevent the possibility to reconstruct the concerned runs.
- ⚠ Check the log files by clicking on the **Failed** or **PPError** or **DCSError** or **FXSError**. The last lines will be particularly revealing of the cause of the failure.
- ⚠ Connections to many systems failing for the same run and no other error: it is very likely a general network breakdown. Inform and check possible causes with the shift leader.
- ⚠ The additional presence of system errors might indicate a Shuttle machine bad state: call the Offline on-call.



- **StoreError**: in case the problem persists for more than 1 hour, checked whether the OCDB is accessible (try connecting to AliEn) and notify the offline on-call.
- Failing subdetectors' preprocessors (**PPError**, **Failed**): do not inform experts: responsables are notified automatically (GRP is a special preprocessor, not a subdetector, it needs your action).
- Do not report issues which appeared and were already reported in previous shifts.



GRP failures: take action!

- ⚠ In case of a GRP failure, check the log file of the run by clicking on the **Failed** or **PPError** symbol for the GRP in the given run.
- ⚠ Take action already after the first failure, although a retrial is foreseen: a timely intervention could allow to restore the conditions before losing the run
- ⚠ Contact the DCS shifter for DCS FXS issue or missing data points
- ⚠ For missing or wrong conditions in the DCS FXS coming from an upstream system (CTP or LHC Interface), contact the on-call of the corresponding upstream system
- ⚠ Contact the ECS/DAQ shifter for DAQ FXS issue
- ⚠ Report all the informations made available by the log
- ⚠ Inform the shift leader: no reconstruction will be possible for that run



GRP failures: Take action!

The last lines of the log will clarify the issue, in particular the string following GRP Preprocessor FAILS!!!. According to the rules above:

DCS ERROR	}	contact DCS shifter
DCS data points ERROR		
Trigger Scalers not found in FXS	}	call CTP on-call
Trigger Configuration ERROR		
Trigger Aliases wrong or not found in DCS FXS		
CTP timing ERROR		
LTU Configuration Error	}	call LHC Interface on-call
LHC Clock Phase Error (from LHC Data)		
FXS Error for LHC Data		
LHC Data Error	}	contact DAQ shifter
DAQ logbook ERROR		
DAQ FXS ERROR		



DCS and FXS errors: Take action!

- ⚠ Note the detector that fails with **DCSError** and inform the DCS shifter about the problem. Look together at the logs.
- ⚠ Look in the log file of the preprocessor that fails in **FXSError** to find out which subsystem FXS retrieval failed (can be DAQ or DCS or HLT). Inform the corresponding subsystem shifter and the SL.
Examples of error messages:
 - ➡ (FXS Error for LHC Data)
- ⚠ In case of combined errors (e.g. **DCS FXS Error for CTP Data**) contact the system which is upstream (e.g. the CTP on-call in this example) and notify the shift leader.
- 👉 After you (successfully) tried to understand the issue from the logs, propose the SL and the concerned on-line system shifter to look at them together.
- 📎 For all the critical issues mentioned above, report the problem in the End Of Shift report



When we have several preprocessors failing in contiguous runs, most likely we have a common problem shared among them (check the logs).

Monitoring for SHUTTLE for data taking at Point2 (click [here](#) to go to the test setup)
 SHUTTLE naming: AliRoot tag v5-08-11 (comment: #9306500)
 SHUTTLE statistics (current status: **ONLINE**, processing run: **258198**, unprocessed runs: **0**)
 DCS errors/last hour: **0**, FXS error/last hour: **0**, GRP failure/last hour: **0**, OCDB error/last hour: **0**

RunId	Run type	First seen	Last seen	SHUTTLE	ACO	ADJ	EMC	FMD	GRP	HLT	HMP	MCH	MTR	PHS	CPV	PMD	SPD	SDD	SSD	TOF	TPC	TRD	TRI	T00	V00	ZDC
257021.25			Last day ▾																							
257028	PHYSICS	26 Jun 2016 08:37	26 Jun 2016 09:05	Done 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Failed (1) 0	Failed (1) 0	Failed (1) 0	Failed (1) 0	Done (1) 0	Done (1) 0	
257026	PHYSICS	25 Jun 2016 18:51	29 Jun 2016 23:21	Done 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Failed (1) 0	Failed (1) 0	Failed (1) 0	Failed (1) 0	Done (1) 0	Done (1) 0	
257021	PHYSICS	25 Jun 2016 17:50	29 Jun 2016 23:21	Done 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Done (1) 0	Failed (1) 0	Failed (1) 0	Failed (1) 0	Failed (1) 0	Done (1) 0	Done (1) 0	

```
select filePath,size,fileChecksum from dcsfes where run=257028 and detector="TOF" and fileld="TofFeeMap" (/home/shuttle/alroot/AliRoot/SHUTTLE/AliShuttle.cxx:2216)
I-AliShuttle::Log: 2016-06-26 06:54:19 UTC (13206): TOF - run 257028 - GetFile - No entry in DCS FXS db for: id = TofFeeMap, source = none
```

Ignore the errors related to QAThresholds, they are expected.

```
select distinct DAQsource from daqFES_files where run=258923 and detector="FIT" and fileld="QAThresholds" (/home/shuttle/alroot/AliRoot/SHUTTLE/AliShuttle.cxx:2455)
I-AliShuttle::Log: 2016-08-01 15:07:23 UTC (18757): FIT - run 258923 - GetFileSources - No entry in DQM FXS table for id: QAThresholds
E-AliGRPPreprocessor::ProcessDqmFxs: No sources found for QAThresholds from detector FIT, skipping
No valid QAThresholds entries found, storing nothing in the OCDB
openFileResult for QAThr processing would be 1, but we return kTRUE anyway
storeResultQAThr for QAThr processing would be 1, but we return kTRUE anyway
I-AliShuttle::Log: 2016-08-01 15:07:23 UTC (18757): GRP - run 258923 - DQM FXS, successful!
```



Information for the Offline shifters



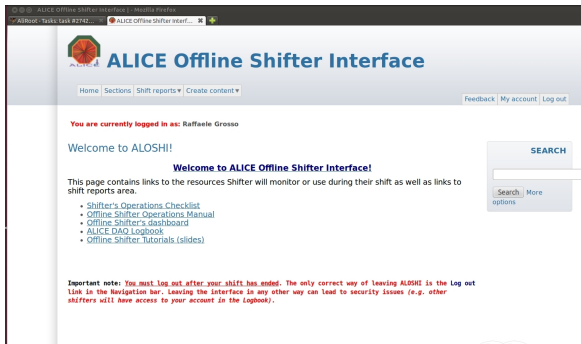
ALOSHI: single access point for information

<https://aloshi.cern.ch>

The **ALICE** Offline **SH**ifter **I**nterface (**ALOSHI**) provides to the Offline Shifter a single point of access for browsing and editing information and documentation.

It allows to:

- ▶ publish structured documentation for Shifter's operations and tasks;
- ▶ search easily for information in the database of the shift reports and in the documentation.



ALICE Offline Shifter Interface

Home | Sections | Shift reports | Create content

Feedback | My account | Log out

You are currently logged in as: Raffaele Grosso

Welcome to ALOSHI!

Welcome to ALICE Offline Shifter Interface!

This page contains links to the resources Shifter will monitor or use during their shift as well as links to shift reports area.

- Shifter's Operations Checklist
- Offline Shifter Operations Manual
- Offline Shifter's dashboard
- ALICE DAQ Logbook
- Offline Shifter Tutorials (slides)

Important note: You must log out after your shift has ended. The only correct way of leaving ALOSHI is the Log out link in the Navigation bar. Leaving the interface in any other way can lead to security issues (e.g. other shifters will have access to your account in the logbook).

SEARCH

Search More options



- ➡ Any member of ALICE collaboration can access ALOSHI (<https://aloshi.cern.ch>) with its AFS-NICE CERN password.
 - ➡ No registration is needed.
- ➡ The main page contains (among others) links to:
 - ➡ Shifter's Operations Checklist;
 - ➡ Offline Shifter's Operation Manual;
 - ➡ Offline Shifter's Dashboard;
 - ➡ ALICE DAQ Logbook.
- ➡ Any authenticated user can edit documentation. Modifications to Offline documentation must be agreed with Offline RC.



The shifter's dashboard

The **shifter's dashboard** provides an overview of the systems to be monitored. In particular the shifter can monitor raw data registration and replication and the state of the Shuttle connections with online systems:

- 1 Compare the last registered runs (from the **RAW data registration** table) to the last taken runs (from the DAQ monitor).
- 2 Click Full details of the **RAW data registration** table to access data replication info by run (**Replication status** column).
- 3 Check **Shuttle connection checks** in case of hints to bad connections to online systems.



The shifter's dashboard



MonALISA Repository for ALICE



My jobs | My home dir | Catalogue browser | LEGO Trains | Administration Section | ALICE Reports | Alert JML Feed | Firefox Toolbar | MonLisa GUI

ALICE Repository

- ALICE Repository
- Google Map
- Shifter's dashboard
- Run Condition Table
- Production Overview
- Production Info
- Job Information
- SE Information
- Services
- Network Traffic
- FTD Transfers
- CAP Monitoring
- SHUTTLE
- Build system
- HepSpec
- Dynamic charts

Close all

This page: bookmark, URL

Running jobs trend



Running jobs trend

24h 12h 6h th
(click arrows for detailed view)

Shuttle status: ONLINE (processing run 228370, unprocessed runs: 1)

Run #	Type	Start time	End time
228373	PHYSICS	today 17:09	today 17:09
228372	PHYSICS	today 17:00	today 17:00
228371	STANDALONE	today 17:09	today 17:09
228370	PHYSICS	today 17:18	today 17:18
228369	PHYSICS	today 16:51	today 16:51
228368	PHYSICS	today 16:51	today 16:51
228367	STANDALONE	today 17:00	today 17:00
228366	PHYSICS	today 16:42	today 16:42
228365	STANDALONE_BC	today 16:42	today 16:43
228364	PHYSICS	today 16:19	today 16:19

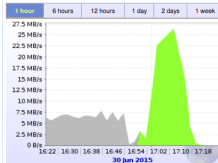
Full details >

RAW data registration, last runs in the catalogue:

Run #	Partition	Chunks	Last time	Size
228370	LHC15g	61	today 17:12	2,396 GB
228369	LHC15g	216	today 16:47	1,401 GB
228366	LHC15g	242	today 16:38	476.6 MB
228360	LHC15g	242	today 16:11	1,825 GB
228356	LHC15g	242	today 15:56	3,433 GB
228350	LHC15g	726	today 15:41	14,08 GB
228341	LHC15g	726	today 14:41	19,01 GB
228340	LHC15g	242	today 13:36	6,006 GB
228336	LHC15g_AD	22	today 11:56	48,95 MB
228291	LHC15g_Technical	22	yesterday 19:48	1,687 MB
228287	LHC15g_Technical	22	yesterday 19:32	1,609 MB

Full details >

Transfers to T1s



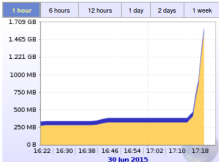
Full details >

Shuttle connection checks Last checked: today 17:13

Test	Result
AMANDA	OK
AMANDA2	OK
DAQ_FXS	OK
DAQ_LOGBOOK	OK
DCS_FXS	OK
DCS_LOGBOOK	OK
HLT_FXS	OK
HLT_LOGBOOK	OK

Full details >

RAW data registration



Full details >



Summary of required actions:

The shifter's check list



ALICE

The shifter's check list

Summary of shifters' duties available in the **shifter's checklist**:

RAW data registration

- ➔ Compare PHYSICS runs' start/stop in logbook with corresponding run raw data registration to CASTOR

registration errors (runs not registered >2 hours after migration) ⇒ *report to Offline on-call*

RAW data replication

- ➔ Periodic check of replication status

"stuck runs" (not processed 12 hours after registration) ⇒ *alice-shift-alarms@cern.ch and EOS report*

The shifter's check list


Shuttle operation

- | | | |
|---|---|---------------------------|
| DCS FXS broken connection or missing file*, missing DPs* | ⇒ | <i>DCS shifter</i> |
| CTP configuration problem* | ⇒ | <i>CTP on-call</i> |
| DAQ FXS problem (broken connection or missing file) | ⇒ | <i>ECS/DAQ shifter</i> |
| *Affecting GRP | | |
| persistent detector preprocessor failures | ⇒ | <i>note in EOS report</i> |
| Shuttle offline (automatic restart procedure failed) or ML down | ⇒ | <i>Offline on-call</i> |

Reporting issues

- | | | |
|-----------------------|---|--|
| run-related issue | ⇒ | <i>report in logbook with reference to run</i> |
| summary of operations | ⇒ | <i>EOS report (in ALICE-logbook)</i> |

The right mood

- ▶ Before pressing the  make sure to apply the procedures and rules defined for each failure type
- ▶ Understand the failure, then:
 - ▶ contact the appropriate **support channel** if foreseen
 - ▶ alosi has a search feature, use it to look for similar problems and solutions
 - ▶ describe the issue in the appropriate place (including the solution, if any)

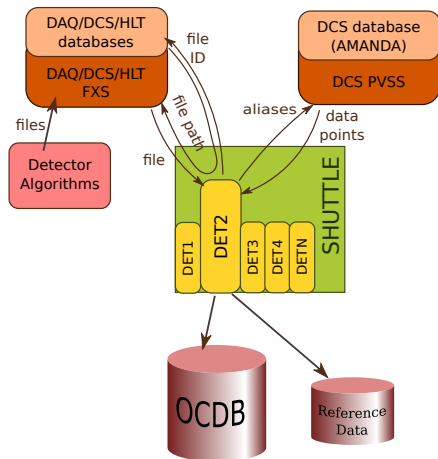


Enjoy your shifts!



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Shuttle and Preprocessors



Steered by the Shuttle, detector preprocessors retrieve:

- ➡ files from the File eXchange Servers
- ➡ a map of Data Points from the DCS interface

valid for the given detector and the given run/time stamp.

These data are processed and published in the Offline Conditions Data Base as CDB objects (root files in AliEn).



Preprocessors' status flow

