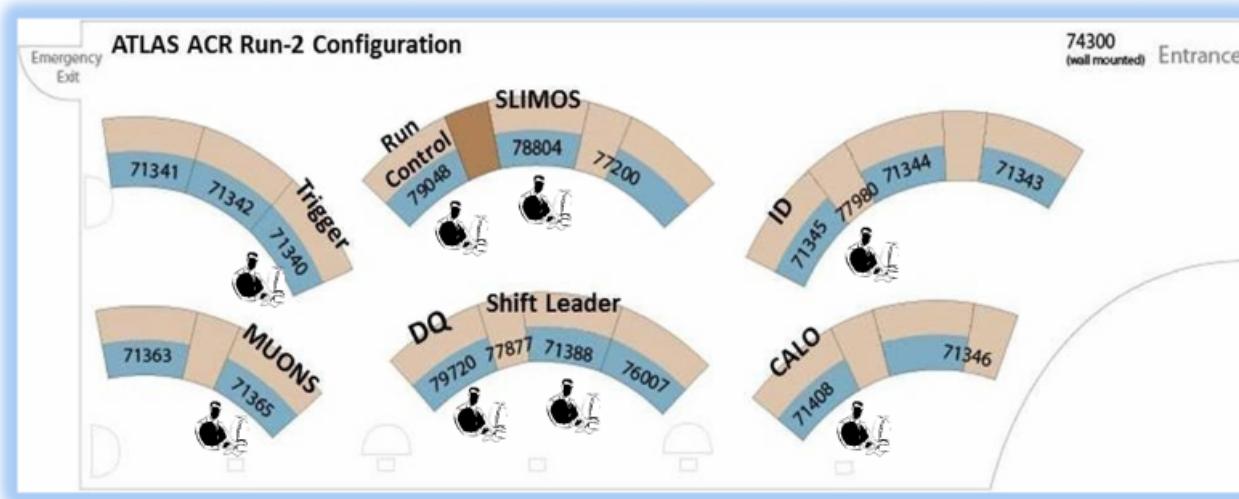


# CALO Desk Shift General Introduction

2015



# Access to the ATLAS Control Room

## ATL\_CR :: ATLAS CONTROL ROOM

**Description** ACCESS TO ATLAS CONTROL ROOM

**Zone Manager** ALESSANDRO POLINI

**Zone Deputy Manager** BENIAMINO DI GIROLAMO

**EDH Request Required** Yes - Request it [here](#).

**Dosimeter Required** No

### Required Safety Courses

Description	Course Code	Jump
Level 4A (ATLAS)	COURAT	SIR - Follow it <a href="#">here</a> .
CERN Safety Introduction	COURHSE	SIR - Follow it <a href="#">here</a> .
Safety during LS1	COURLS1	SIR - Follow it <a href="#">here</a> .

Check the access  
2 weeks ahead!

Check on:  
<https://hrt.cern.ch/hrt/AccessInfo>  
if you have the required in  
“Access & Safety Courses  
Information”

Or on adams: <http://adams.web.cern.ch/>

Buildings	Zone Code	Access Granted? (click for details)	Short Description	Contract	Card	EDH Request	Dosimeter	Courses	Exception	Role
3162	ATL_CR	✓	ATLAS CONTROL ROOM	●	●	●	●	●	●	●

If needed request the corresponding missing requirement:

EDH request: [https://edh.cern.ch/Document/General/ACRQ?zone=ATL\\_CR](https://edh.cern.ch/Document/General/ACRQ?zone=ATL_CR)  
Courses: <https://sir.cern.ch/>

Info on Class1 shifts and OTP:

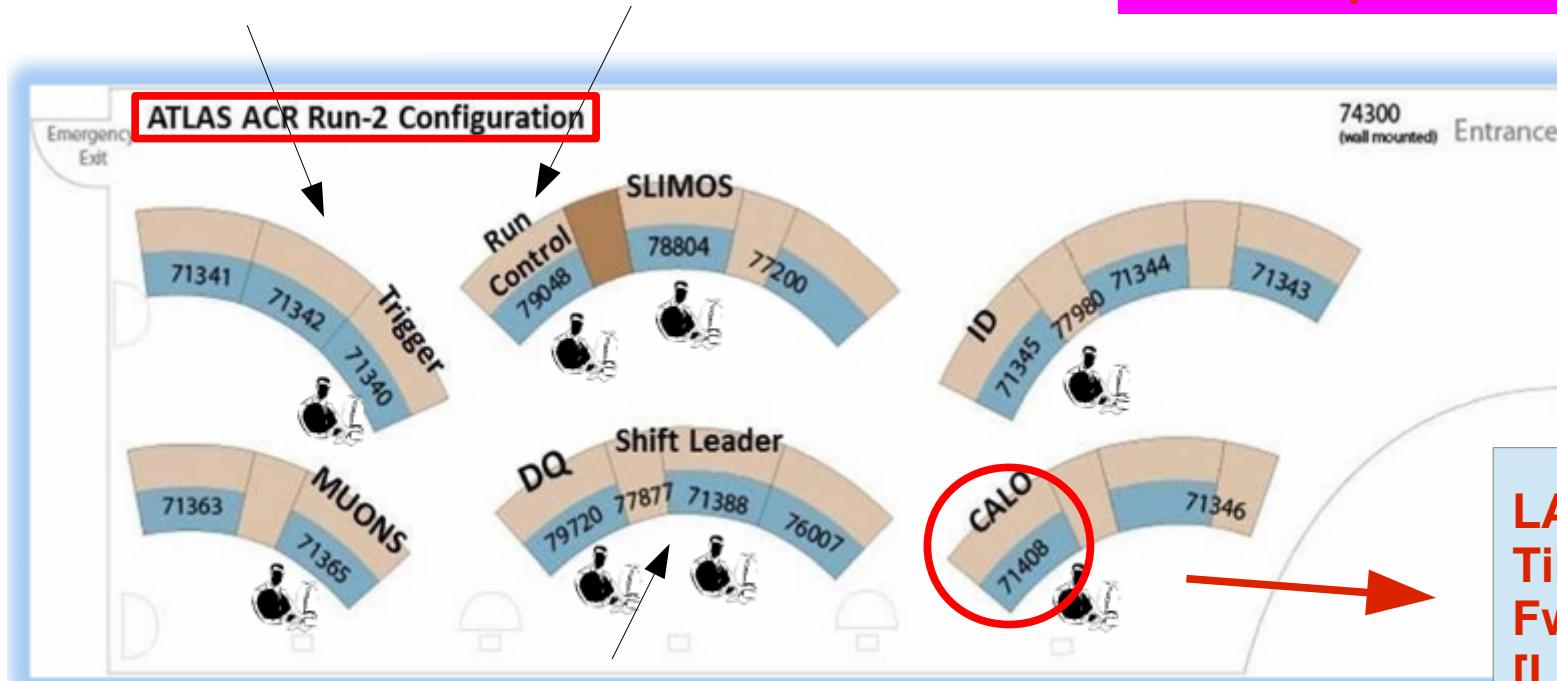
<https://twiki.cern.ch/twiki/bin/viewauth/Atlas/OtpAtlasControlRoomShifts>

# Start of Shift

Trigger Desk:  
Will know about  
trigger configuration  
(L1 issues)

Run Control:  
Responsible for  
running the  
ATLAS partition

You must arrive **10-15'** before  
the start of your shift!  
The previous shifter should  
**debrief** you!  
On the wall screens you should  
find the “**plan of the day**”



Shift Leader:  
You can ask him about the  
ATLAS plan for the day

You sit here!

LAr calorimeter  
Tile calorimeter  
Fwd detectors  
[LUCID-ALFA]

# Login at the Calo desk computers

- Login as **CAL:shifter**  
[logout the previous shifter if they are still logged in]
- If you don't see the **CAL** menu on the bottom-left of the screen, you are not login as CAL:shifter
  - Log out (from the button at the bottom-left of your desktop)
  - Login again as Control Room Calorimeter.
  - username: crcal [no password]
- Logging in loads a specific **workspace** configuration with all the necessary panels/panels



# Login at the Calo desk computers

- Login as **CAL:shifter**  
[logout the previous shifter if they are still logged in]

checklists

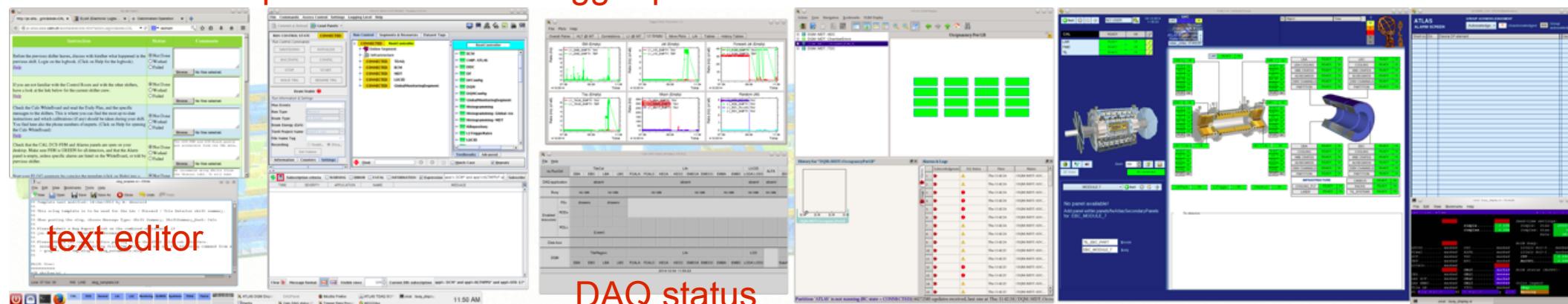
partition monitor

trigger presenter

DQMD

DCS FSM

DCS alarms



- username: crcal [no password]

busy panel

- Logging in loads a specific **workspace** configuration with all the necessary panels/panels



# Documentation

## Calorimeters Operation

Have always open!!

CALO Crew      Meetings      Phone Numbers      Whiteboard      Glossary

**COMMON TOOLS**

- Old Calo Twiki
- E-log book...
- LAr ID Translator
- Tile Eta/Phi Converter
- HV Trip Database
- Tier 0 DQ Monitoring
- Savannah Bug Report

**ATLAS & LHC**

- ATLAS Shift Crew
- Event Displays
- Run Query
- LHC Overview...

**SEARCH & PHONES**

Search

Name

ilophoneNumbers#Forward

**CALORIMETER DAILY PROGRAM** +

**ATLAS DAILY PROGRAM** +

Shifters      Experts / RCs      Super-Shifters      Data Quality

**CRITICAL NOTES FOR SHIFTERS**

At the start of each shift please ensure you read the [FWD](#), [LAr](#) and [Tile](#) Current Status.  
Known MRS/DCS warnings/errors are printed there.  
Please report bugs or missing documentation on [bug report page](#)

GENERAL	FORWARD 71122	LAR 70136	TILE 163155
<a href="#">Important Numbers</a>	<a href="#">Important numbers</a>	<a href="#">Important numbers</a>	<a href="#">Important numbers</a>
<a href="#">At start of shift</a>	<a href="#">FSM Status</a>	<a href="#">FSM Status</a>	<a href="#">FSM Status</a>
<a href="#">Calibration Schedule</a>	<a href="#">Current status (HW/SW)</a>	<a href="#">Current status (HW/SW)</a>	<a href="#">Current status (HW/SW)</a>
<a href="#">Elog templates...</a>	<a href="#">LUCID Shifter</a>	<a href="#">Troubleshooting</a>	<a href="#">Troubleshooting</a>
<a href="#">For New Shifters...</a>	<a href="#">ZDC Shifter</a>	<a href="#">How-to</a>	<a href="#">How-to</a>
<a href="#">Combined Training</a>	<a href="#">ARC Training</a>	<a href="#">LAr Training (Issues)</a>	<a href="#">Tile Training</a>
		<a href="#">Operation Manual...</a>	<a href="#">Operation Manual...</a>

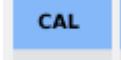
**POSTED NEWS** -

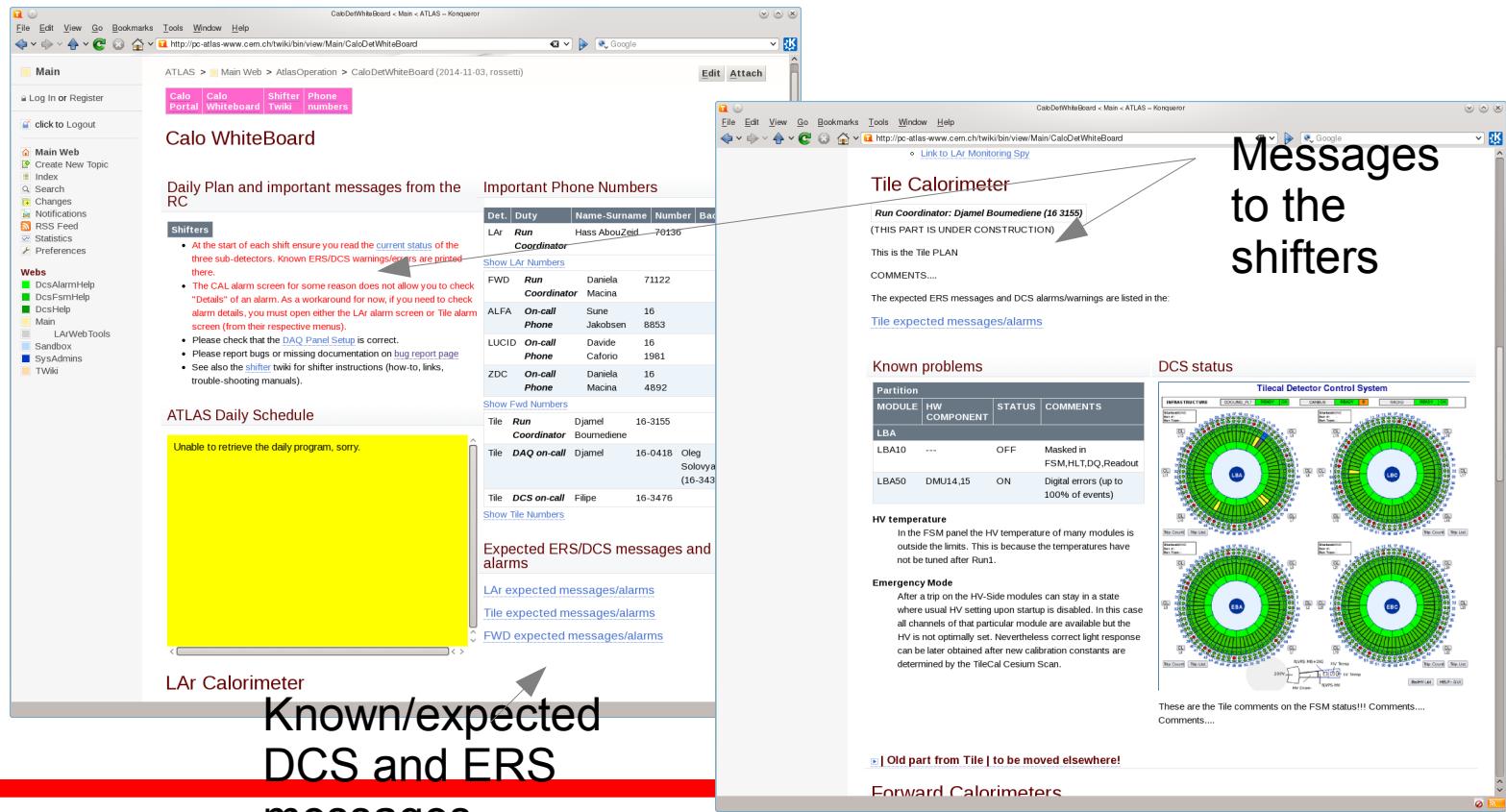
Your Feedback is Needed!

Please send all your comments, suggestions and corrections on [Savannah](#), selecting the category "Calo Portal". Thank you.

- → “Calo portal” [<https://atlasop.cern.ch/calo/>]

# Calo Whiteboard

-  → Calo Whiteboard
- Scrolling down, it contains specific parts for LAR, TILE and FWD detectors [plan of the day, known problems, error messages and info for the specific data-taking period]
- Have a look at it at the beginning of the shift, to know the current situation



The screenshot shows two browser windows side-by-side, both titled "CaloWhiteBoard < Main < ATLAS – Konqueror".

**Left Window (Main Page):**

- Shifters:**
  - At the start of each shift ensure you read the [current status](#) of the three sub-detectors. Known ERS/DCS warnings/errors are printed there.
  - The CAL alarm screen for some reason does not allow you to check "Details" of an alarm. As a workaround for now, if you need to check alarm details, you must open either the LAr alarm screen or Tile alarm screen (from their respective menus).
  - please check that the [DAQ Panel Setup](#) is correct.
  - please report bugs or missing documentation on [bug report page](#)
  - See also the [shifter twiki](#) for shifter instructions (how-to, links, trouble-shooting manuals).
- ATLAS Daily Schedule:**

Unable to retrieve the daily program, sorry.
- Known/expected DCS and ERS messages:**
  - [LAr expected messages/alarms](#)
  - [Tile expected messages/alarms](#)
  - [FWD expected messages/alarms](#)

**Right Window (Tile Calorimeter Page):**

- Tile Calorimeter:**
  - Run Coordinator:** Djamel Boumediene (16 3155) (THIS PART IS UNDER CONSTRUCTION)
  - Comments:** This is the Tile PLAN
  - Known problems:**

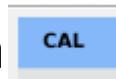
Partition	Module	H/W Component	Status	Comments
LBA	LBA10	---	OFF	Masked in FSM,HL,TQ,Readout
LBA50	DMU14,15	ON	Digital errors (up to 100% of events)	
  - DCS status:**

These are the Tile comments on the FSM status!!! Comments....

Comments....

Old part from Tile to be moved elsewhere!
- Forward Calorimeters:**

# Checklists

- Work as shifter assistants to guide/help the shifter throughout the shift
- **Use them!** Extremely useful for **new** shifters! - Please **DONT** post an e-log entry though
- Available from  → CALChecklists
- Checklists are:
  - Shift tutorial
  - Start of Shift
  - Start of Run
  - Online DQ
  - End of Run
- Try to look through the checklist beforehand so you know what to expect!

Instruction	Status	Comments
Before the previous shifter leaves, discuss with him/her what happened in the previous shift. Login on the logbook. (Click on Help for the logbook.) <a href="#">Help</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	<a href="#">Browse...</a> No files selected.
If you are not familiar with the Control Room and with the other shifters, have a look at the link below for the current shifter crew. <a href="#">Help</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	<a href="#">Browse...</a> No files selected.
Check the Calo WhiteBoard and read the Daily Plan, and the specific messages to the shifters. This is where you can find the most up-to-date instructions and which calibrations (if any) should be taken during your shift. You find here also the phone numbers of experts. (Click on Help for opening the Calo WhiteBoard) <a href="#">Help</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	<a href="#">Browse...</a> No files selected. The DCS-FSM and DCS-Alarm panels are accessible from the CAL menu.
Check that the CAL DCS-FSM and Alarms panels are open on your desktop. Make sure FSM is GREEN for all detectors, and that the Alarm panel is empty, unless specific alarms are listed on the WhiteBoard, or told by previous shifter.???LINK DOES NOT GO TO THE PANELS???	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	<a href="#">Browse...</a> No files selected. Right click on the title bar, click on Advanced, then click Keep Above Others
Make sure the DCS Alarm screen is always on top.???HOW TO DO THAT???	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	<a href="#">Browse...</a> No files selected.
Start your ELOG summary by copying the template (click on Help) into a text editor. Keep a chronology summary during the whole shift. <a href="#">Help</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	<a href="#">Browse...</a> No files selected. We recommend using KWrite (from the General tab). It will ease the copy/pasting of ERS errors during your shift.
If a global ATLAS run is starting, open the "Start Of Run" checklist. <a href="#">Help</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	<a href="#">Browse...</a> No files selected. Click on Help, then select the startrun and CAL checklist
If a global ATLAS run is ongoing, open the TDAQ panel to monitor the run. <a href="#">...</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked	<a href="#">Browse...</a> No files selected. From the button TDAQ-->DAQ Panel. The configuration of the TDAQ Panel is at the Help link.

# What are you responsible for?

---

- **Monitor** detector status and data taking
- **React** to problems and changes of status
- Follow up issues/status and document in **ELisA** (Electronic Logbook for the Information Storage of ATLAS)
- Take **calibration** runs when asked for them
- **Report** to the Run Coordinators (RCs)/experts-on-call

In order to facilitate and organize the work of the shifter: **checklists**

---

# Monitoring

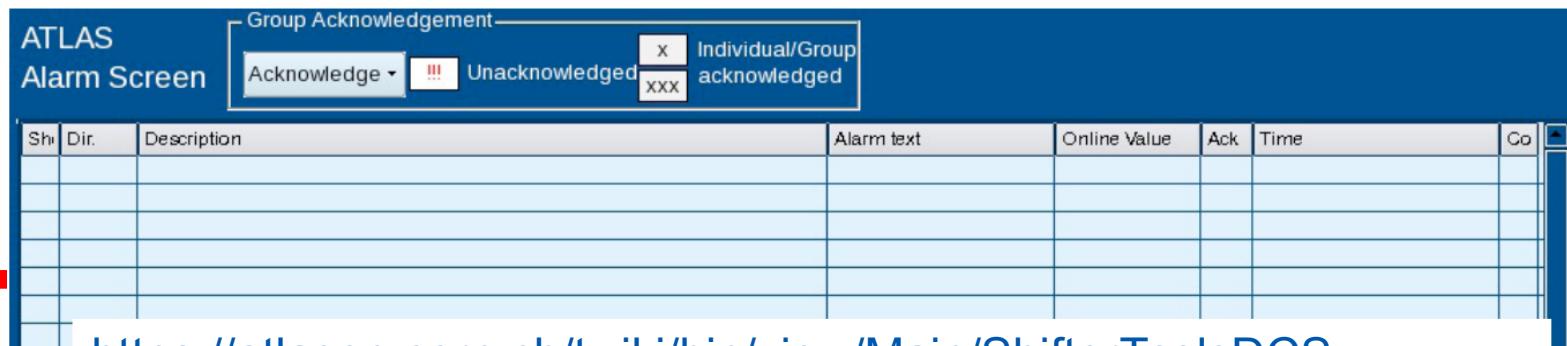
---

- Detector status
  - DCS (Detector Control System)  
[FSM (Final State Machine – detector hierarchy tree) and alarm screen]
- Trigger and Data AcQuisition [TDAQ] status
  - DAQ Graphical User Interface, ERS (Error Reporting Service) [ex MRS] and Busy panel
  - Trigger rates [Trigger Presenter] and L1 Calo map
- Data integrity/quality status (related to both detector and data taking)
  - DQMD (Data Quality Monitoring Display) and OHP (Online Histogram Presenter)



# Detector: Alarm Screen

- Most (major) detector failures appear to SLIMOS as **DSS** (Detector Safety System) alarms.  
Other alarms of the system [e.g. High-voltage trips, Temperature alarms] will appear here with severity identifiers
  - **Yellow = warnings** (some may “flicker” on and off)
  - **Red = ALARM!**
- If alert is not described in known issues on whiteboard, please **report!**
- **Do NOT acknowledge any alarms (this is for experts/RCs).**  
If Shift Leader asks you to remove alarms, contact the RC and provided he/she agrees, mask them
-  → CAL FSM Alarm Screen
- Should be kept **clean!**



ALARMS\_CAL: ATLASAlarmScreen

**ATLAS**  
**ALARM SCREEN**

**GROUP ACKNOWLEDGEMENT**

Acknowledge  Unacknowledged  Group acknowledged  Individually acknowledged

Sh	Dir.	Description	Alarm text	Online Value	Ack	Time	Co
W	CAME	ATLLARSCS:SystemOverview/PCATLLARHV5/ATLLARHV5/Manager8.readings	Manager Misconfiguration	TRUE		2014/08/19 17:23:17	
W	CAME	ATLLARSCS:SystemOverview/PCATLLARHV5/ATLLARHV5/Manager9.readings	Manager Misconfiguration	TRUE		2014/08/19 17:23:17	
W	CAME	ATLLARSCS:SystemOverview/PCATLLARHV10/ATLLARHV10/Manager5.readings	Manager Misconfiguration	TRUE		2014/08/19 17:23:17	
W	CAME	ATLLARSCS:SystemOverview/PCATLLARHV10/ATLLARHV10/Manager20.readings	Manager Misconfiguration	TRUE		2014/08/19 17:23:17	
F	CAME	TIL PvssSystem ATLTLSCS	Pmon Not Responding	13	x	2014/09/17 11:53:06	
W	CAME	TIL HostMonitoring PCATLTL04 AgentCommunication pmon	CommunicationError	-1		2014/09/17 11:53:10	
W	CAME	ATLTLSCS:SystemOverview/PCATLTL02/ATLTLV02/Manager25.readings	Manager Misconfiguration	TRUE		2014/09/17 16:20:20	
E	CAME	ATLTLSCS:_fwSystemOverviewMonitor.isCtrlRunning	FW System Overview Ctrl Mar	FALSE		2014/09/17 16:21:15	
A	WENT	ATLZDC01:_Event.License.RemainingTime	License expires	2147483647	!!!	2014/09/25 18:53:42	
A	WENT	ATLLARDAMON:_Event.License.RemainingTime	License expires	2147483647	!!!	2014/09/25 18:58:59	
F	WENT	LCD C TemperatureProbe 8	LUCID TEMPERATURES FATA	22.82	!!!	2014/10/29 11:25:45	
F	WENT	LCD C TemperatureProbe 3	LUCID TEMPERATURES FATA	23.49	!!!	2014/10/29 11:25:49	
E	WENT	ATLLCD02:CAEN/LucidHV01/board08/channel001.actual.Trip	Tripped	FALSE	!!!	2014/10/29 13:49:18	
E	WENT	ATLLCD02:CAEN/LucidHV01/board08/channel000.actual.Trip	Tripped	FALSE	!!!	2014/10/31 10:05:02	
E	WENT	LAR Cooling MixedWater InletTemperature	Temperature is very HIGH (ca	12.899999618	!!!	2014/11/04 14:52:47	
F	WENT	LCD C TemperatureProbe 4	LUCID TEMPERATURES FATA	-nan	!!!	2014/11/07 14:23:34	
F	WENT	LCD C TemperatureProbe 10	LUCID TEMPERATURES FATA	22.52	!!!	2014/11/07 14:23:35	
F	WENT	LUCID C Temperature probe 14	LUCID TEMPERATURES FATA	23.14	!!!	2014/11/07 14:23:35	
F	WENT	LUCID C Temperature probe 16	LUCID TEMPERATURES FATA	24.85	!!!	2014/11/07 14:23:36	
F	WENT	LUCID C Temperature probe 11	LUCID TEMPERATURES FATA	23.35	!!!	2014/11/07 14:23:40	
F	WENT	LCD C TemperatureProbe 5	LUCID TEMPERATURES FATA	22.79	!!!	2014/11/07 14:39:39	
F	WENT	LCD C TemperatureProbe 7	LUCID TEMPERATURES FATA	23.23	!!!	2014/11/07 14:48:50	
E	CAME	LAR HEC C HV LV-HV Interlock ATLLARHV6(Phone 70137)	Locked	TRUE		2014/11/12 12:03:23	
W	CAME	TIL EBA Drawer 62 PMT 37 Output Voltage status	WARNING	2		2014/11/13 18:44:24	
E	CAME	TIL EBA Drawer 62 PMT 37 Output Voltage status	ALERT	2		2014/11/13 18:44:33	
W	CAME	TIL EBA Drawer 35 PMT 24 Output Voltage status	WARNING	1		2014/11/13 19:13:57	
E	CAME	LAR HEC A HV LV-HV Interlock ATLLARHV7(Phone 70137)	Locked	TRUE		2014/11/14 11:33:32	
W	CAME	TIL EBC Drawer 20 PMT 1 Output Voltage status	WARNING	1		2014/11/16 20:19:56	
W	CAME	TIL LBA Drawer 11 PMT 14 Output Voltage status	WARNING	1		2014/11/16 21:49:19	
W	CAME	TIL EBC Drawer 47 PMT 12 Output Voltage status	WARNING	1		2014/11/17 12:16:41	
W	CAME	TIL EBC Drawer 47 PMT 14 Output Voltage status	WARNING	1		2014/11/17 14:43:43	
E	WENT	LUCID OracleDB Connection	RDB archive disconnected	TRUE	!!!	2014/11/17 19:28:27	
E	WENT	LCD AC ConnectionStatus CAENOPCServer	CAENOPCServer disconnect	TRUE	!!!	2014/11/17 19:28:40	
W	CAME	LAR HEC LV 300V control box 4	Current low!	697.347		2014/11/19 08:28:25	
W	CAME	TIL EBC Drawer 47 PMT 6 Output Voltage status	WARNING	1		2014/11/19 16:54:04	

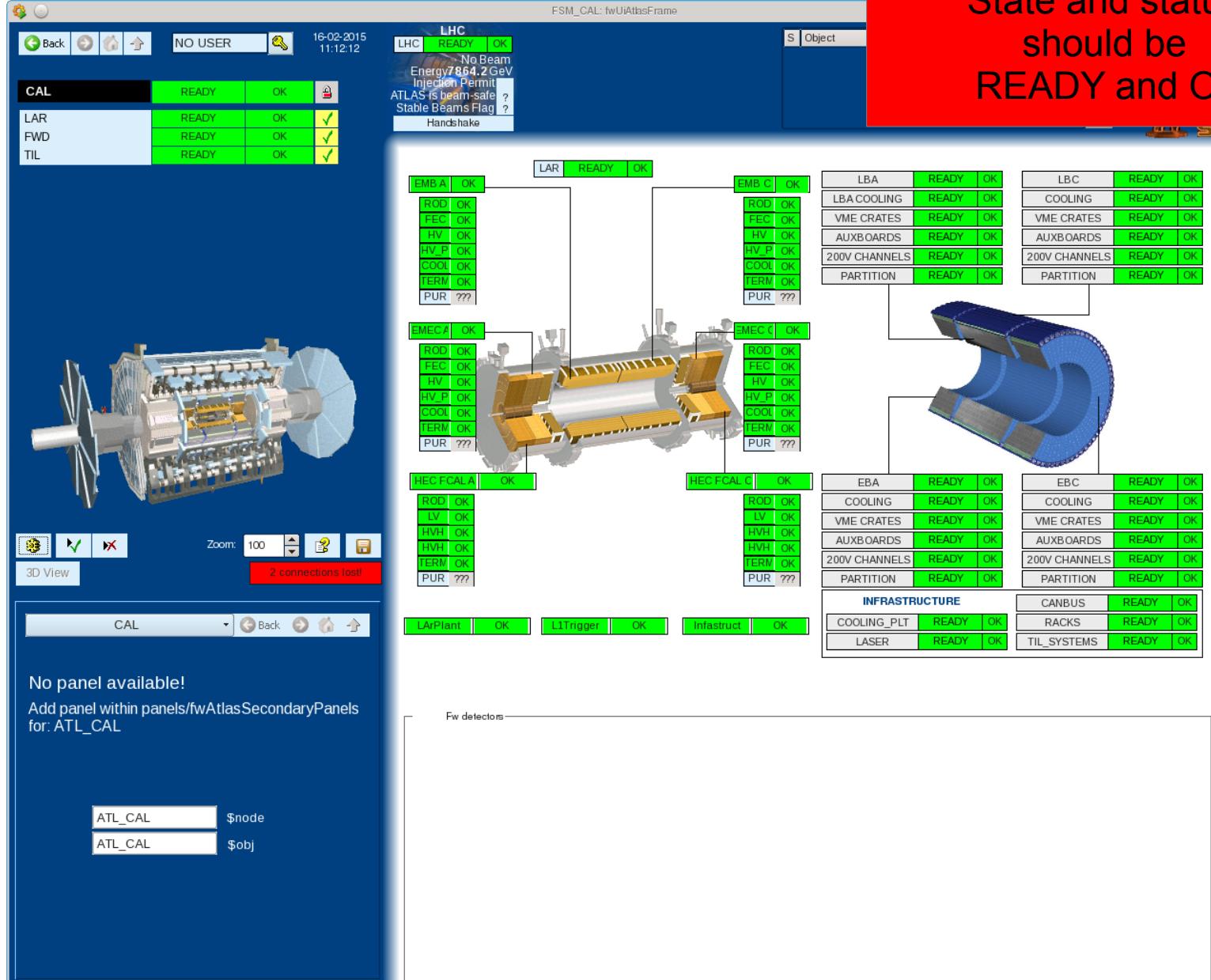
**FILTER SETTINGS**

Systems: ATLLCD02, ATLTLV00, ATLTLV01, ATLTLV02, ATLTLV03, ATLTLSCS, ATLZDC01  
 Severity: W, E, F  
 Description: \*  
 Acknowledgment: All  
 Alert Text: \*  
 DPE Name: \*  
 NO USER: 1 connections lost!  
 Filter Preset: Default  
 Apply Filter:

Displayed: 100 Unacknowledged: 16 Masked: 83 Masked Alerts: Lock Line Position:  Deselect: Settings: Close:

# Detector: CALO FSM

CAL  
→ CAL  
FSM  
Panel



# Detector: Fwd FSM

**LHC**

LHC	READY	OK
Injection Probe Beam		
Energy = 450.1 GeV		
Injection Permit Y		
ATLAS is beam-safe Y		
Stable Beams Flag N		

**FWD**

FWD	READY	OK
LCD	READY	OK
ZDC	READY	OK
RPO	SHUTDOWN	OK

**Object**

S	Object	Time
W	LAR: EMBAFEC	2011.10.31 11:253
W	LAR: EMB A	2011.10.31 11:253
W	LAR: EMECA	2011.10.31 11:264
W	LAR: EMECAFEC	2011.10.31 11:264

**ATLAS**

**LUCID - LUminosity monitoring using a Cherenkov Integrating Detector**

**VESSEL C**

**HIGH VOLTAGE**

**TEMPERATURE**

min	20.26 °C
max	21.66 °C

**PRESSURE (mbar)**

internal	46.886
diff	931.371
trending	

**VESSEL A**

**HIGH VOLTAGE**

**TEMPERATURE**

min	20.32 °C
max	21.37 °C

**PRESSURE (mbar)**

internal	40.659
diff	937.598

**LOW VOLTAGE**

**Cooling**

**FAN+**

**FAN-**

**ELMB TEMPERATURE**

5 V	10 V
-----	------

**INFRASTRUCTURE**

**CAEN crate**

**WIENER PS**

**CAN bus**

**OPC**

**RDB**

**ENVIRONMENT**

**temperature**

**pressure**

**ATLAS ZDC**

**Arm 1 (Tunnel 8-1)**

**Arm 0 (Tunnel 1-2)**

**ALFA (RPO)**

**RP1(B7L1U)** OK   **RP3(A7L1U)** OK   **RPS(A7R1U)** OK   **RP7(B7R1U)** OK

HV	OK
FE	OK
PMF	OK
Mvt	OK

**RP2(B7L1L)** OK   **RP4(A7L1L)** OK   **RP6(A7R1L)** OK   **RP8(B7R1L)** OK

HV	OK
FE	OK
PMF	OK
Mvt	OK

**Sector 8-1 / Side A**

**Sector 1-2 / Side C**

**RPO\_INF** OK

CAN	OK
IARATHO	OK
VME	OK
VAV	OK
ISEG	OK

**3D View**

**All connected**

**Zoom:** 100

**No panel available!**

Add panel within panels/fwAtlasSecondaryPanels for: ATL\_CAL

**ATL\_CAL** \$node

**ATL\_CAL** \$obj

**Y.30-11.A1**

**SBC**

**LTP**

**TTCvi**

**ROD Bus**

**Scalers**

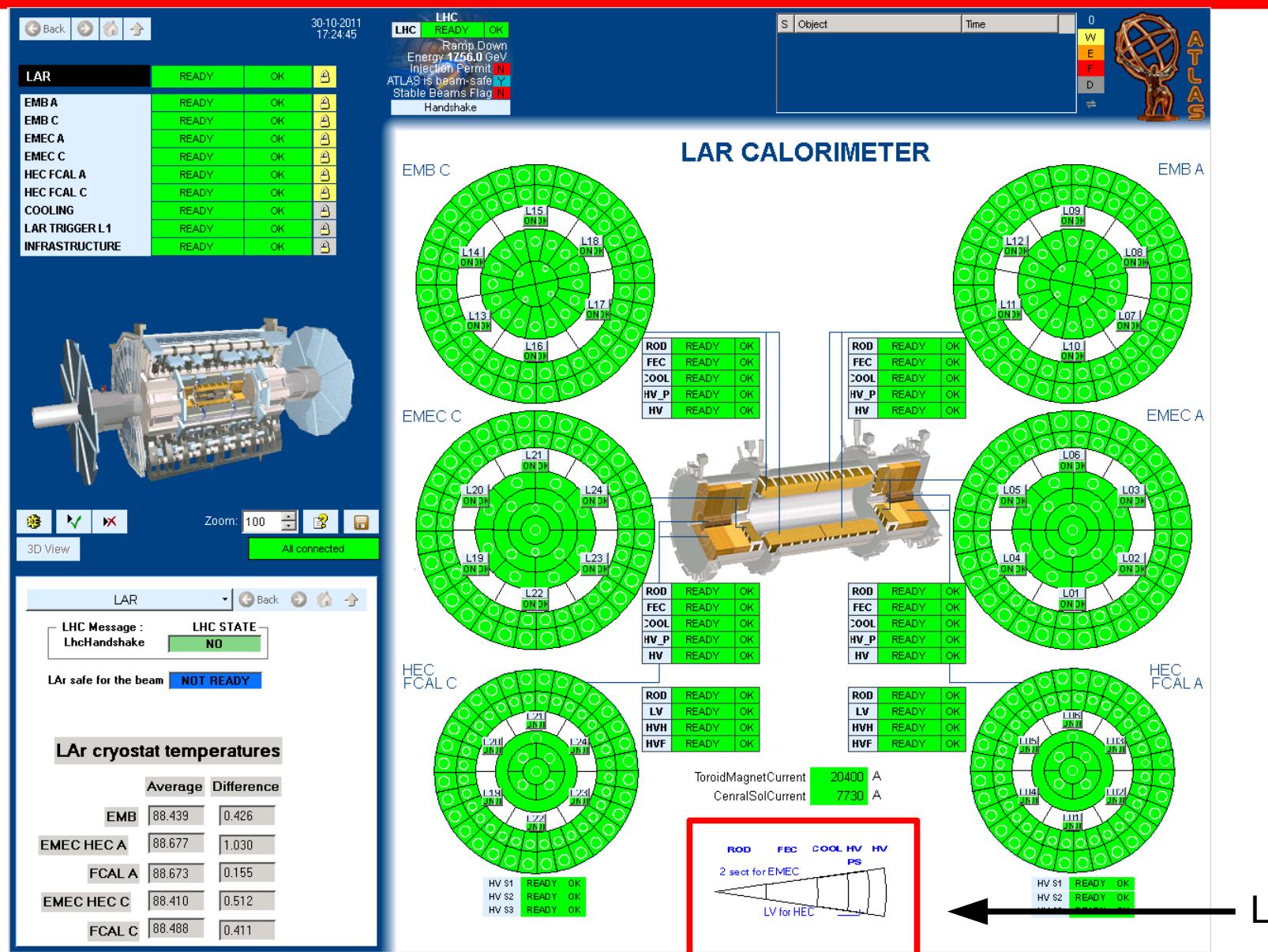
**Crate3** ON OK

**Crate2** ON OK

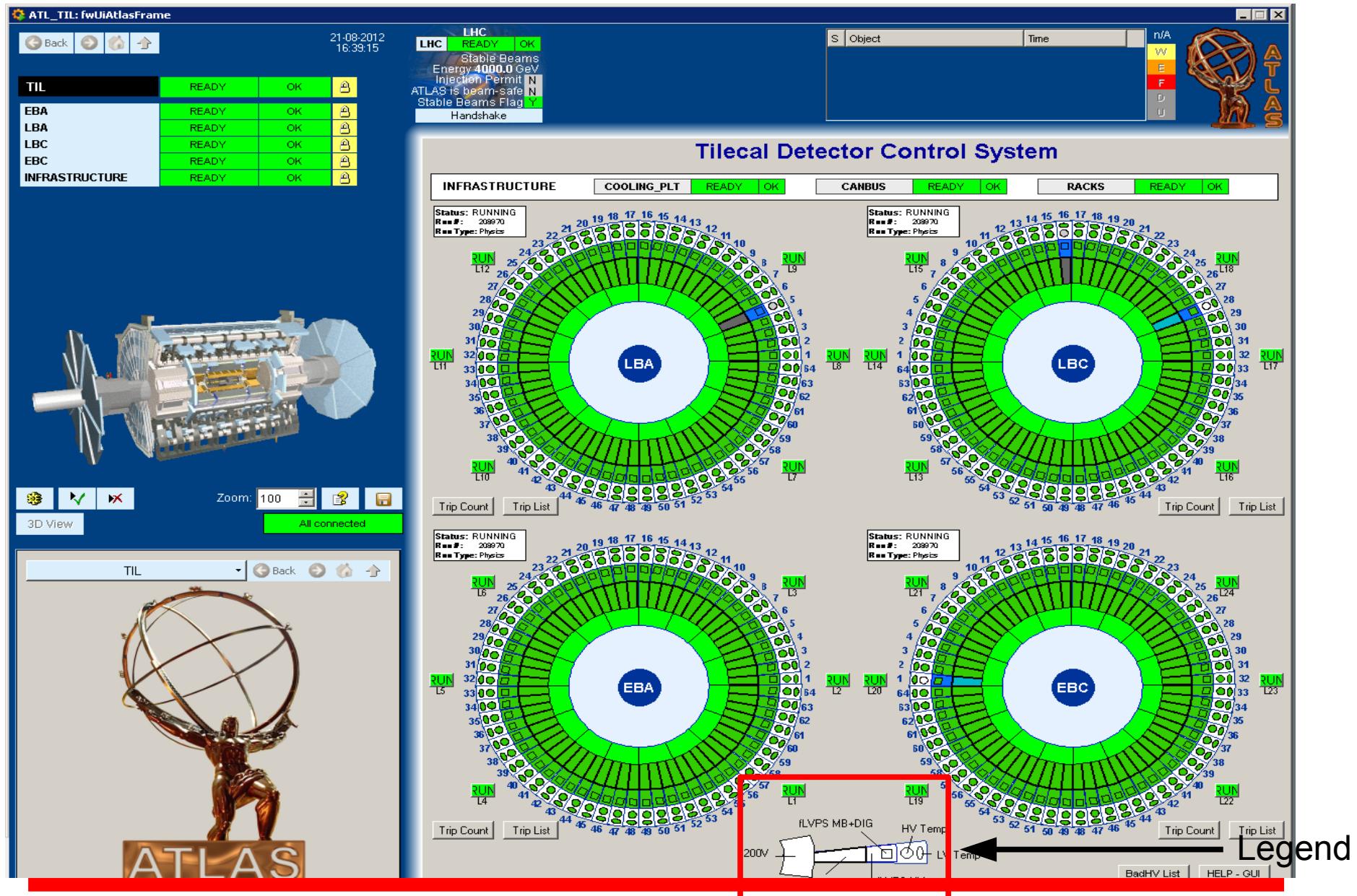
**Crate1** ON OK

**Crate4** ON OK

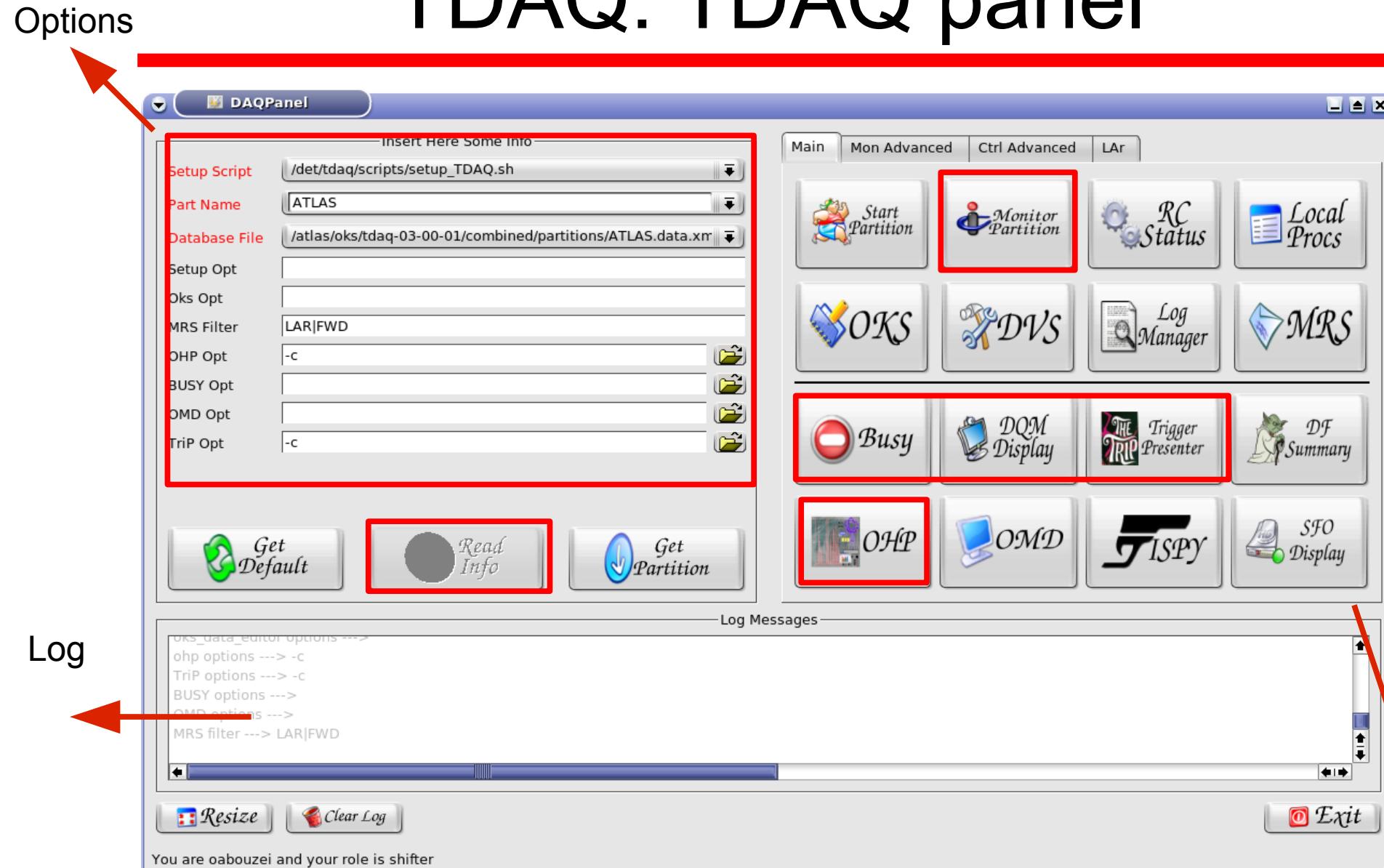
# Detector: LAr FSM



# Detector: Tile FSM



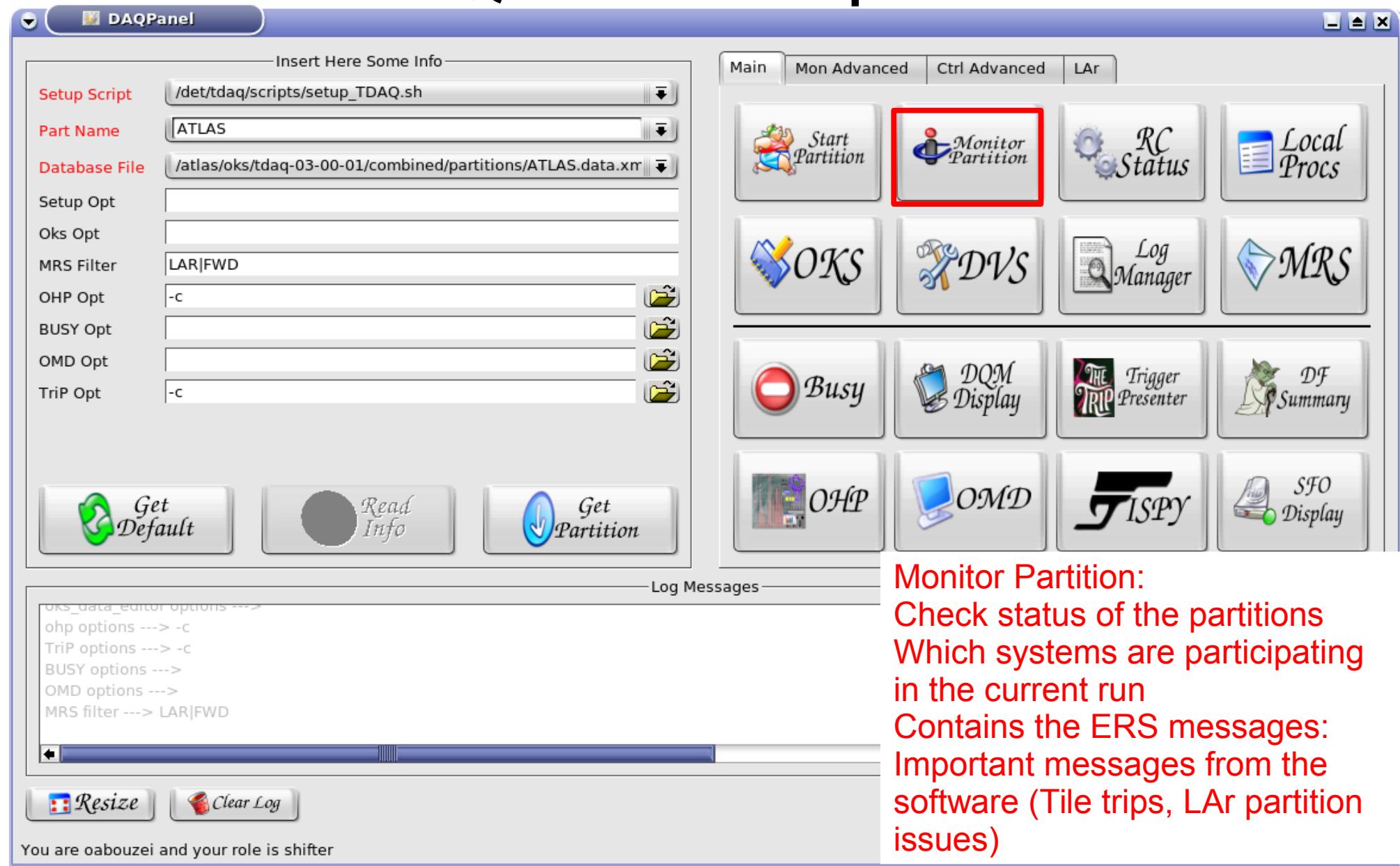
# TDAQ: TDAQ panel



- **TDAQ** → TDAQ Panel

Check the whiteboard to ensure the Opt have not changed!!

# TDAQ: Monitor partition



# TDAQ: Monitor partition

Run info and settings

Get Default

OKS options ---> -c  
ohp options ---> -c  
TriP options ---> -c  
BUSY options --->  
OMD options --->  
MRS filter ---> LAR|F

Resize

You are oabouzei and yo

DAQPanel

File Commands Access Control Settings Logging Level Help

Commit & Reload Load Panels

RUN CONTROL STATE RUNNING

SHUTDOWN INITIALIZE

UNCONFIG CONFIG

STOP START

HOLD TRG RESUME TRG

Beam Stable

Run type Physics

Run number 247368

Super Master Key 1667

LHC Clock Type BCref

Recording Enabled

Start time 28-Nov-2014 19:28:11

Stop time

Total time 0 h, 48 m, 50 s

Information Counters Settings

Subscription criteria  WARNING  ERROR  FATAL  INFORMATION  Expression

TIME	SEVERITY	APPLICATION	NAME	MESSAGE
20:16:55	WARNING	TGCFE-RCD_ECC...	TGCFE:Hardware...	Unexpected state: sector:C03 addr:0X3460000 chip:Asic reg:Tmp_Link_h1tdi:0x0X03c0 tdo:0x3e8 tdi(masked):0x0 tdo(masked):0x28
20:16:54	WARNING	TGCFE-RCD_ECC...	TGCFE:Hardware...	Unexpected state: sector:C02 addr:0X2450000 chip:Asic reg:Tmp_Link_h1tdi:0x0X0300 tdo:0x304 tdi(masked):0x0 tdo(masked):0x4

Clear  Message format  SHORT  LONG Visible rows 100 Current ERS subscription sev=ERROR or sev=WARNING or sev=FATAL

Partitions/Segments running

RootController

- Online Segment
- Infrastructure
- TDAQ
- Pixel
- SCT
- TRT
- ID-Monitoring
- BCM
- LAr
- Tile
- CSC
- MDT
- RPC
- TGC
- LUCID
- ALFA
- GlobalMonitoringSegment
- DQMsegment

Local Procs

MRS

DF Summary

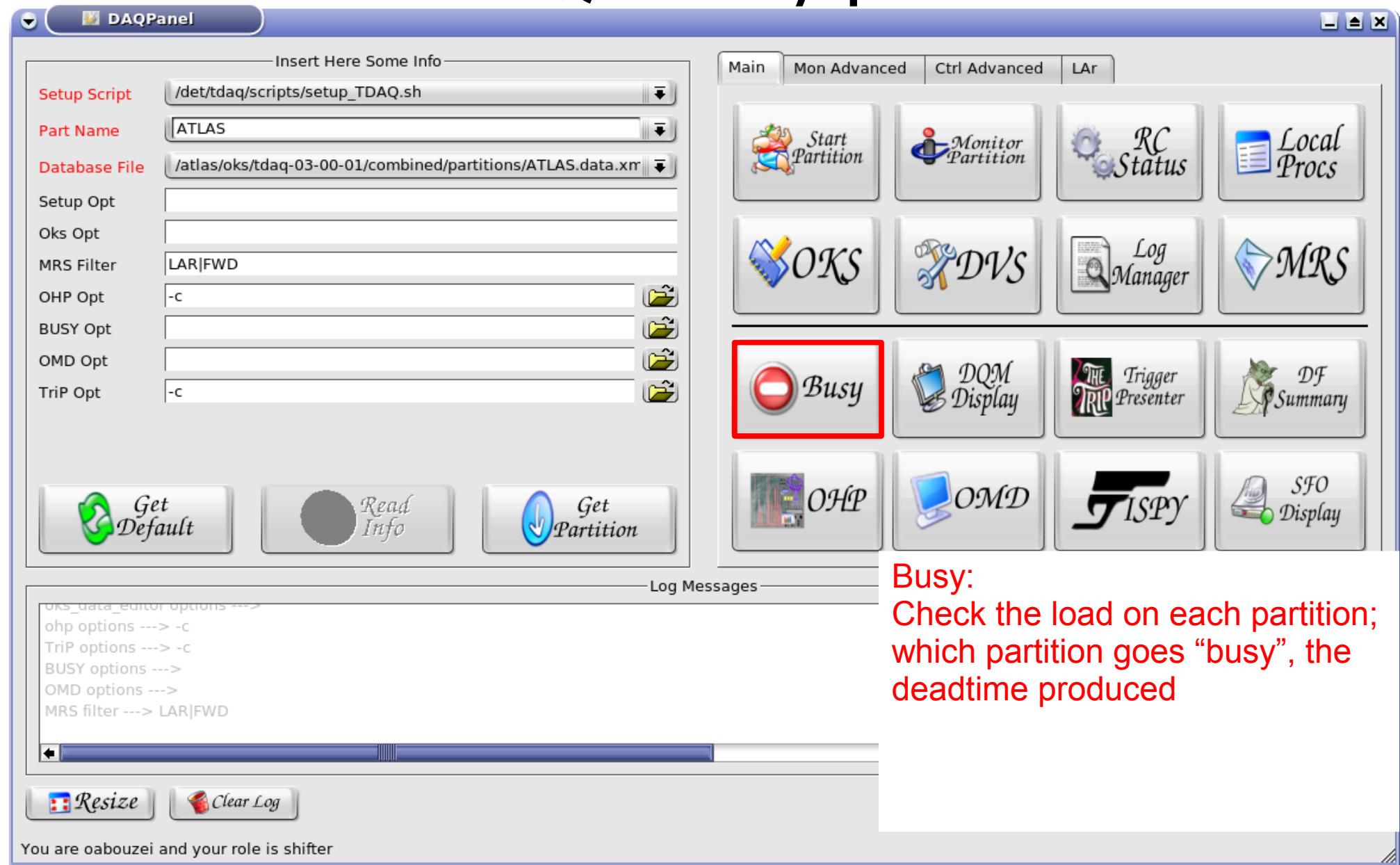
SFO Display

Partitions participating messages: from the Ar partition

Messages Remember to set subscription to > 1000

As we move to **stable operation** the errors appearing here should be well **monitored and documented**

# TDAQ: Busy panel



# TDAQ: Busy panel

DAQPanel

File Edit View Bookmarks Help

Partition: ATLAS 26/3/15 12:47:36

Dead-time.....	0.10%	Subdetectors.....	0.00%	Dead-time settings:
Simple.....	0.09%	Complex.....	0.01%	Simple: Size: 22 Bucket0: Size: 2 Rate: 400 Bucket1: Size: 8 Rate: 380
Runcontrol.....	0.00%			
IBL/DBM.....	masked	MDT B.....	masked	
BCM.....	masked	MDT EC.....	masked	
Pixel.....	masked	CSC.....	masked	
SCT.....	masked	ALFA.....	masked	
TRT.....	masked	LUCID.....	masked	
LAr EMB.....	masked	-.....	masked	
LAr EMEC.....	masked	-.....	masked	
LAr H/F.....	masked	-.....	masked	
Tile LB.....	masked	LHCf.....	masked	
Tile EB.....	masked	ZDC.....	masked	
L1Calo.....	masked	CTP-DRND.....	0.00%	
MUCTPI.....	0.00%	ECR.....	0.00%	
RPC.....	masked	Veto0.....	masked	
TGC.....	masked	Veto1.....	masked	
Micromegas.....	masked			

RoIB XOFFs:  
to L1Calo-0.... masked  
to L1Calo-1.... masked  
to CTP..... 0.00%  
to MUCTPI..... 0.00%

RoIB status (HLTSV):  
---- --00 ---- ----

Color legend:  
Okay (Green) Warning (Orange)  
Error (Red) No info (Blue)

Get Default

OKS\_data\_editor options  
ohp options --> -c  
TriP options --> -c  
BUSY options -->  
OMD options -->  
MRS filter --> LAR|FWD

Resize Clear

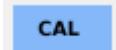
F1 Busy overview F2 IS status q Quit

You are oabouzei and your role is shifter

Local Procs MRS DF Summary SFO Display

each partition; if it's "busy", the

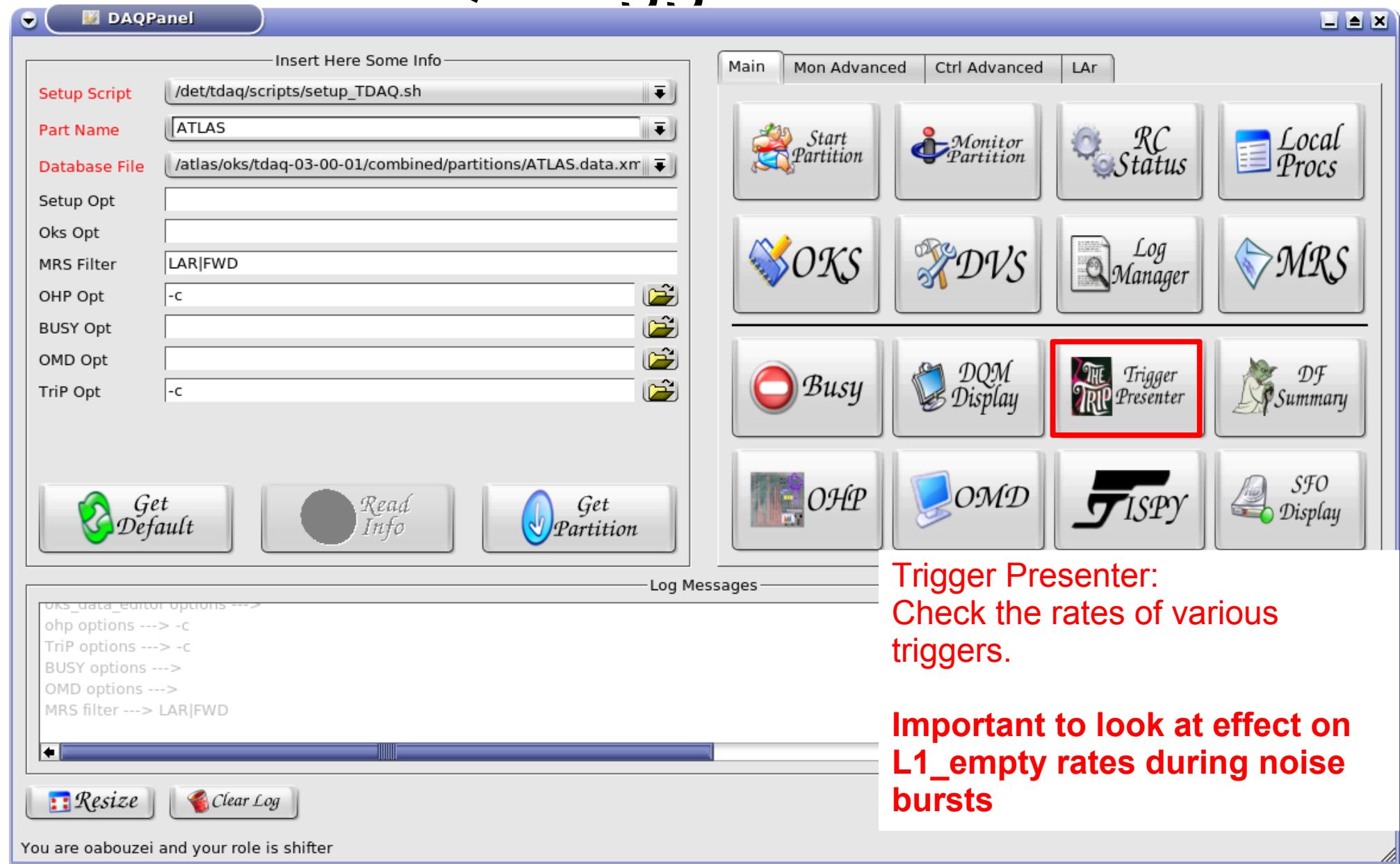
# TDAQ: CALO DAQ status tool

-  → CALO DAQ status

		File		Help																					
RUNNING		TileCal				LAr								LUCID											
		EBA	EBC	LBA	LBC	FCALA	FCALC	HECA	HECC	EMECA	EMECC	EMBA	EMBC	LCDA	LCDC										
DAQ application		RUNNING				RUNNING								RUNNING											
Busy		0.0000 %		0.0000 %		0.0000 %				0.0000 %		0.0000 %		0.0000 %		0.0000 %									
Enabled resources	FEs	128/128 drawers		128/128 drawers																					
	RODs	8/8	8/8	8/8	8/8																				
	ROLs	16/16	16/16	16/16	16/16	7/7	7/7	12/12	12/12	138/138	138/138	224/224	224/224	1/1											
Data loss		0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %								
DQM	TileRegion				LAr								LCD												
	EBA	EBC	LBA	LBC	FCALA	FCALC	HECA	HECC	EMECA	EMECC	EMBA	EMBC	LCDA	LCDC											
2012-08-21 17:03:49																									

- Have it open at all times!  
Some info on this panel is not accessible through any other tool

# TDAQ: Trigger Presenter



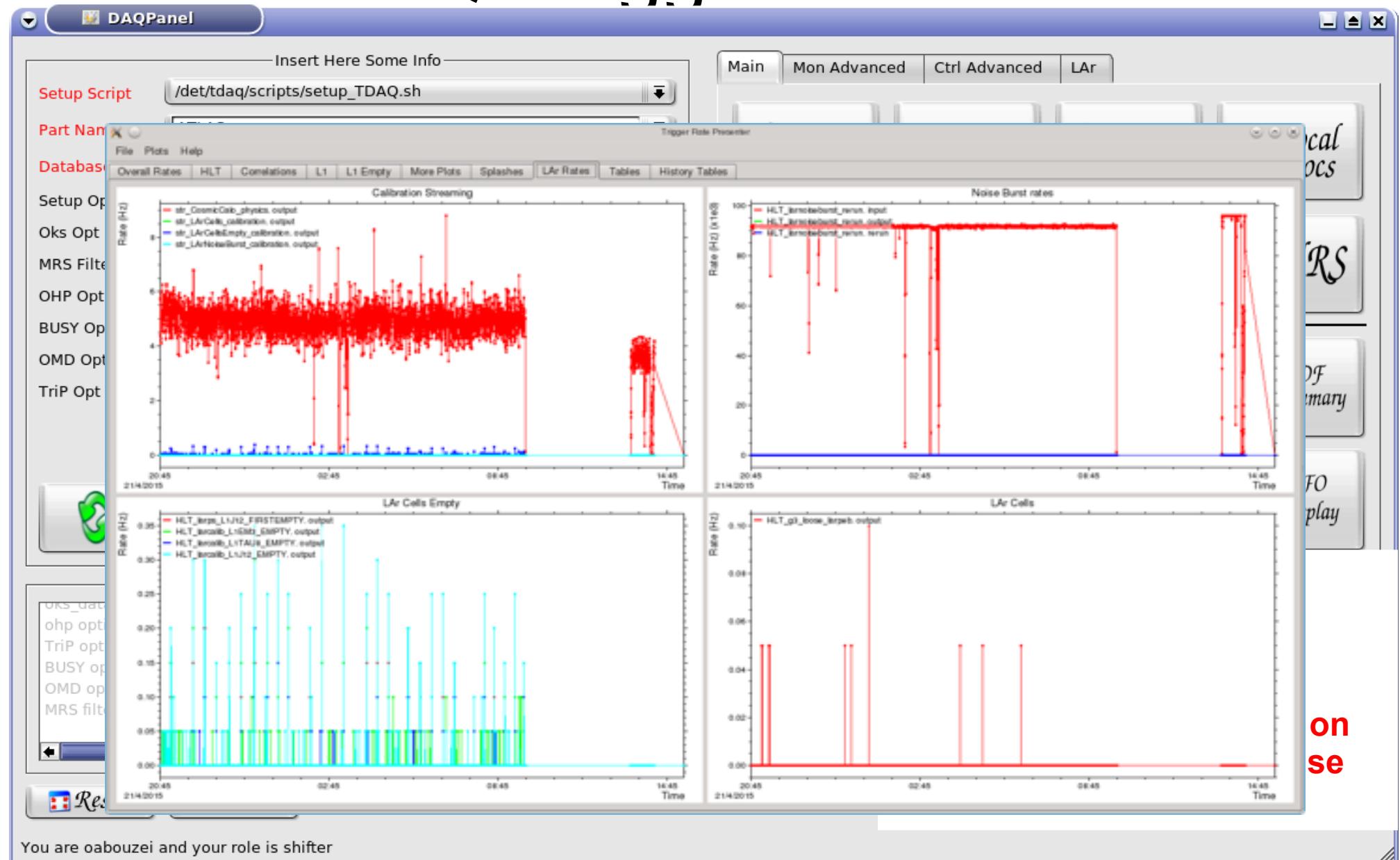
Trigger Presenter:  
Check the rates of various triggers.

Important to look at effect on  
L1\_empty rates during noise bursts

# TDAQ: Trigger Presenter

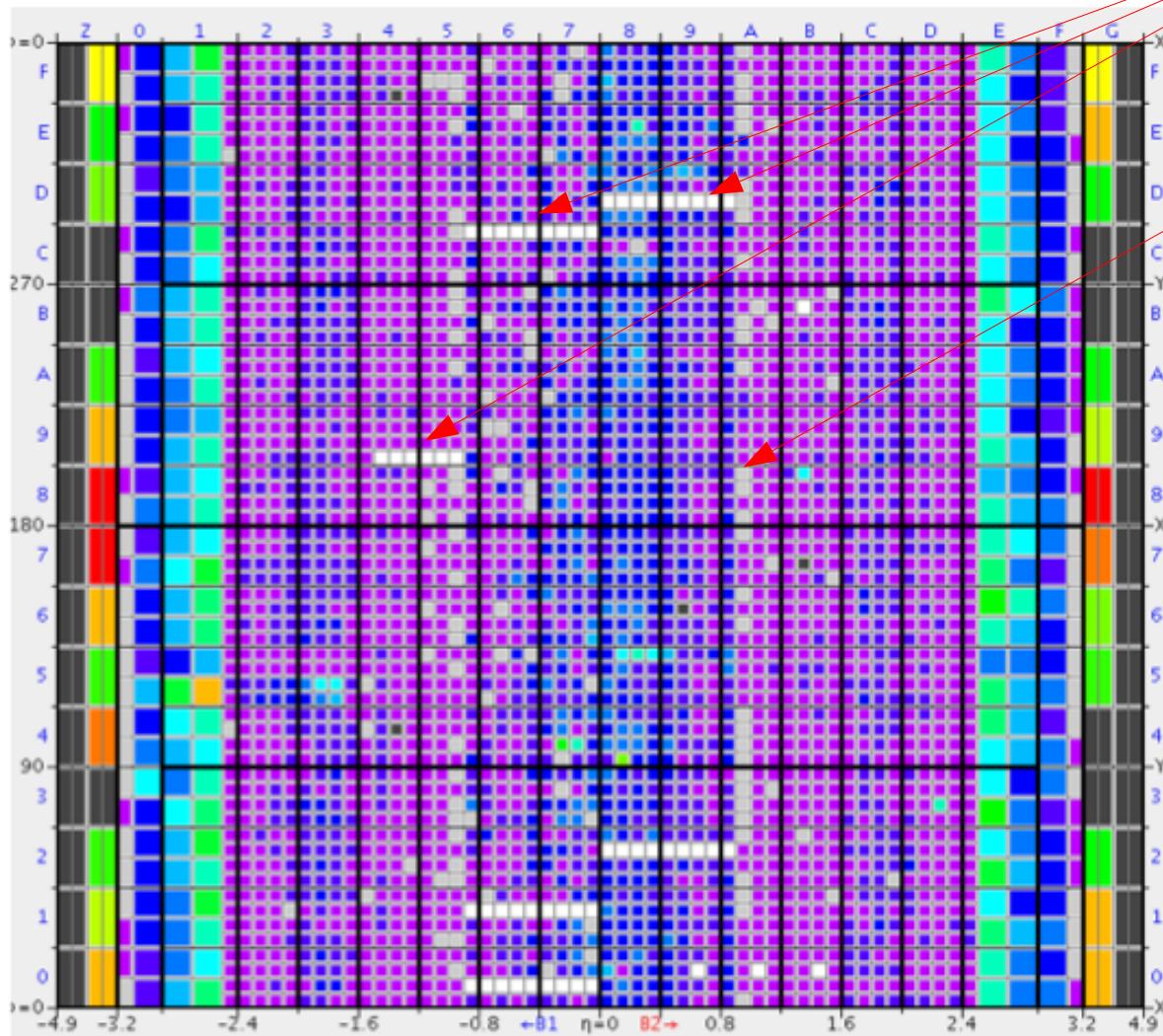


# TDAQ: Trigger Presenter



# TDAQ: L1 calo map

-  → L1 Calo Map [EM and HAD]
- The color express the **trigger rate**; Check it at the beginning and during runs
- This is how the HAD one looks like during a collision run:



Dead TileCal modules

Towers without signals (grey)

Specific TileCal instructions

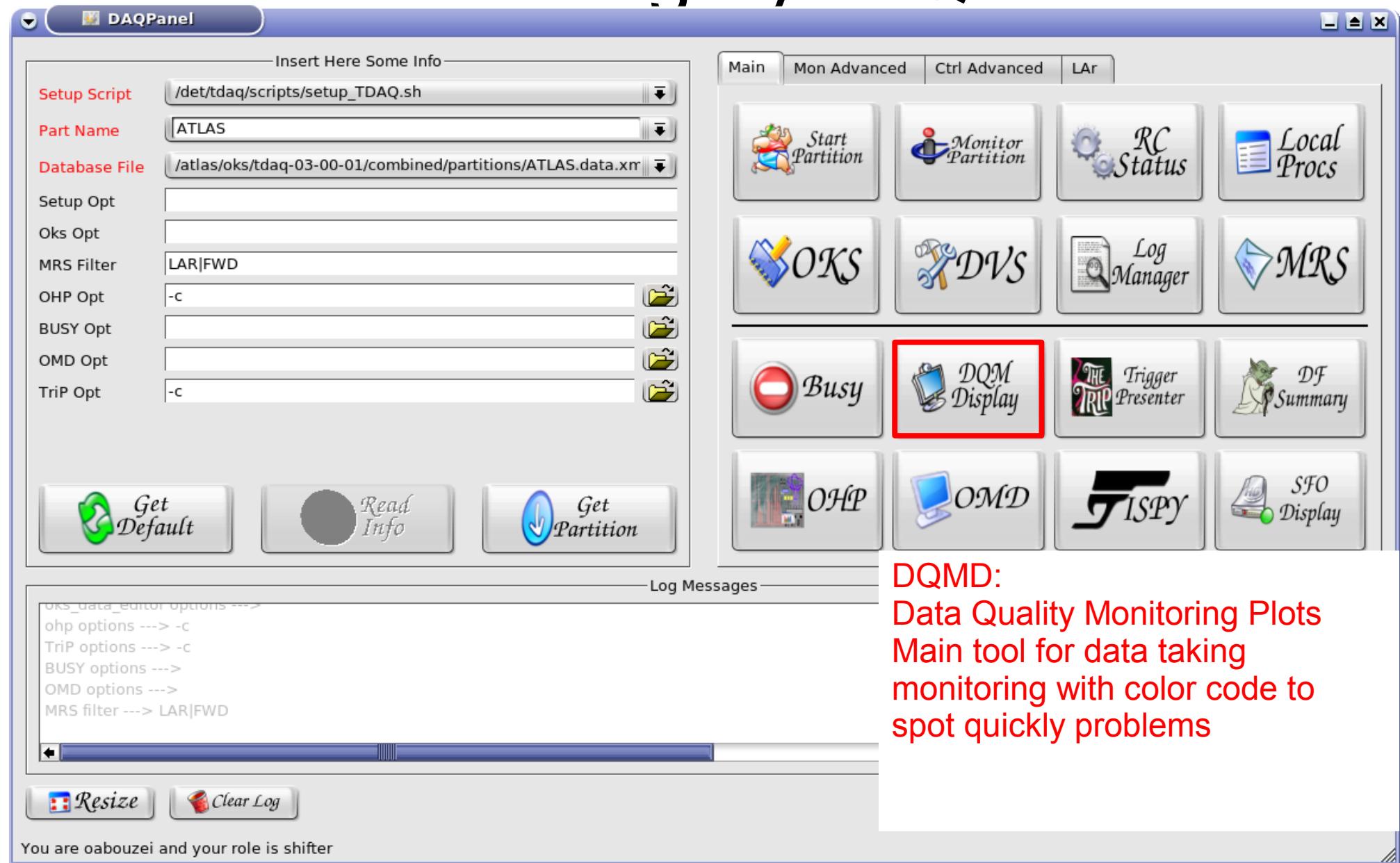
Watch out for  
gray horizontal  
bands:

If a module is not  
triggering do a

**Manual  
Reconfiguration**

**ONLY FOR TILECAL  
ONLY DURING COLLISIONS!**

# Data Integrity: DQMD



# Data Integrity: DQMD

ATLAS DQM Display

Action View Navigation Bookmarks DQM Display

ATLAS

- DQ Shifter
- TriggerSystems
  - LICAL
  - LIMU
  - HLT
  - Luminosity
  - MuonSpectrometers
    - DQM::MDT
    - RPC
  - Calo+FWD
    - Tile
    - LArDQM
    - MBTS
  - InnerDetector
    - TRT
    - SCT
    - PIXEL
  - Calib-Align

Calo+FWD

History for "Calo+FWD"

Alarms & Logs

Alarms	Acknowledgment	DQ Status	Time	Name
1	!	!	2015-Mar-26 12:53:24	/TriggerSystems/ HLT/TRT...
2	!	!	2015-Mar-26 12:50:37	/ InnerDetector/ TRT/ TRT_...
3	!	!	2015-Mar-26 12:53:23	/TriggerSystems/ HLT/ TRIDT
			2015-Mar-26	...

Partition 'ATLAS' is not running (RC state = INITIAL)

66739 updates received, last one at 2015-Mar-26 12:31:49 / Calo+FWD

# Data Integrity: OHP

DAQPanel

Insert Here Some Info

Setup Script: /det/tdaq/scripts/setup\_TDAQ.sh

Part Name: ATLAS

Database File: /atlas/oks/tdaq-03-00-01/combined/partitions/ATLAS.data.xml

Setup Opt:

Oks Opt:

MRS Filter: LAR|FWD

OHP Opt: -c

BUSY Opt:

OMD Opt:

TriP Opt: -c

Get Default

Read Info

Get Partition

Main Mon Advanced Ctrl Advanced LAr

Start Partition

Monitor Partition

RC Status

Local Procs

OKS

DVS

Log Manager

MRS

Busy

DQM Display

Trigger Presenter

DF Summary

OHP

OMD

ISPY

SFO Display

Log Messages

```
OKS_data_editor options --->
ohp options ---> -c
TriP options ---> -c
BUSY options --->
OMD options --->
MRS filter ---> LAR|FWD
```

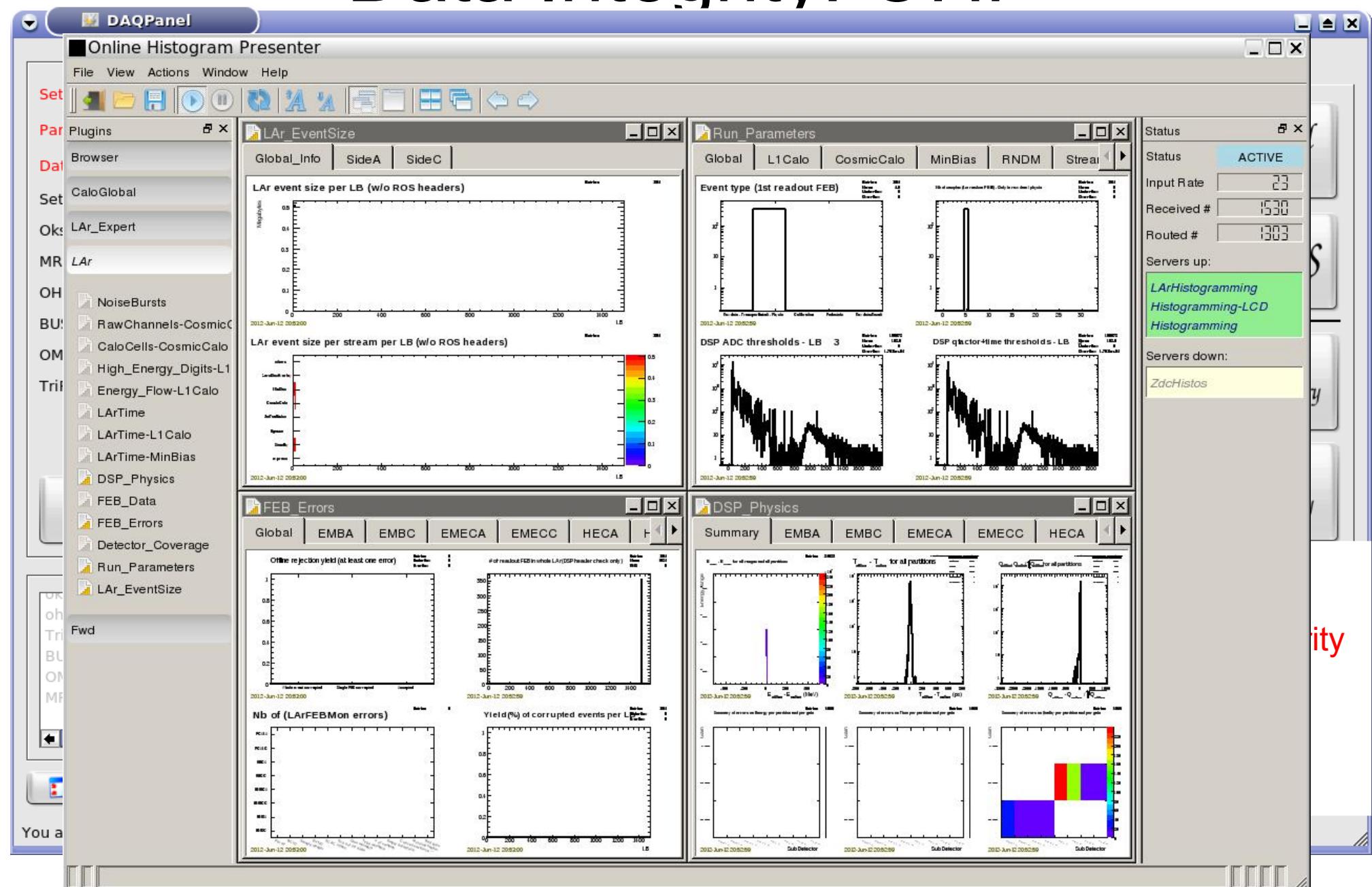
Resize

Clear Log

You are oabouzei and your role is shifter

**OHP:**  
Online Histogram Presenter.  
Histograms showing the integrity  
of the system [e.g. LAr FEB  
errors]  
Tool for further investigation

# Data Integrity: OHP



# Reacting to problems

---

- Have open at all times the windows that should be monitored and be prepared to react to any change/issue.
  - 1<sup>st</sup> Step: **Check the whiteboard** if problem is there (known and cannot be masked)  
If not, try to understand exactly where the problem comes from and explain it clearly to the experts:
  - For **LAr** issues:
    - **Call** the LAr Run Coordinator [70136]
  - For **Tile**, call the corresponding expert:
    - DCS problems (HV, LVPS, trips...) → **Tile-DCS on-call** [163476]
    - DAQ problems (busies, ERS error...) → **Tile-DAQ on-call** [160418]
    - Otherwise → **Tile Run Coordinator** [163155]
  - For **ALFA**, call the **ALFA** on-call [168853]
  - For **LUCID**, call the **LUCID** on-call [161981]
-

# Documenting in ELisA

---

- Shift Summary [In ELisA, Message Type: Shift Summary → Calo]
    - Propose to use an editor (kWrite) to fill it throughout the shift (remember to save often!!)  
[Shift Crew, Shift Chronology, General Summary & Ongoing problems, Data-Taking Conditions, Run-by-Run Summary, Observed Problems, Hot L1Calo Towers or Spikes]
    - Calo/Fwd!! DONT use individual detector options!!
    - Include e-log references to incidents during your shift!
    - Remove the comments from the template before submitting it!
  - If an Expert/RC asks you to document an issue or report an action taken by the expert (duplicates not needed though)
  - Specific issues/problems seen while on shift [e.g. LAr HV trips need individual e-log entry]
  
  - Use the templates available on the white board!
  - Remember: e-logs are seen by all experts and used for future reference!!
-

# ATLAS ELOGS

- General → ATLAS Logbook (ELisA)

A. Polini

The screenshot shows the ATLAS ELisA logbook interface. At the top, there are navigation links: Flat View, Threaded View, New Entry, Advanced Search, Display Thread, and a user status message "You are logged in as alina Logout". A large blue box labeled "Create new log entry" points to the "New Entry" link. Another blue box labeled "Custom table views" points to the "Show / Hide columns" button in the header. A third blue box labeled "Expand message" points to a message row with a "Reply" and "Edit" button. A fourth blue box labeled "On-the-fly filtering: by columns or across cols" points to the column headers. A fifth blue box labeled "Last 500 entries ~ couple of days" points to the date range selector. The main area displays a table of log entries with columns: Date&Time, Author, Subject, Message Type, System Affected, and Text. The table lists several entries from October 29, 2014, such as "Turn on MDT" and "Cooling restored for MDT EO racks". The bottom of the page includes a footer with the date "Thu Oct 30 10:39:59 CET 2014", a contact link, and browser support information.

Create new log entry

Show / Hide columns

Custom table views

Expand message

On-the-fly filtering: by columns or across cols

Last 500 entries ~ couple of days

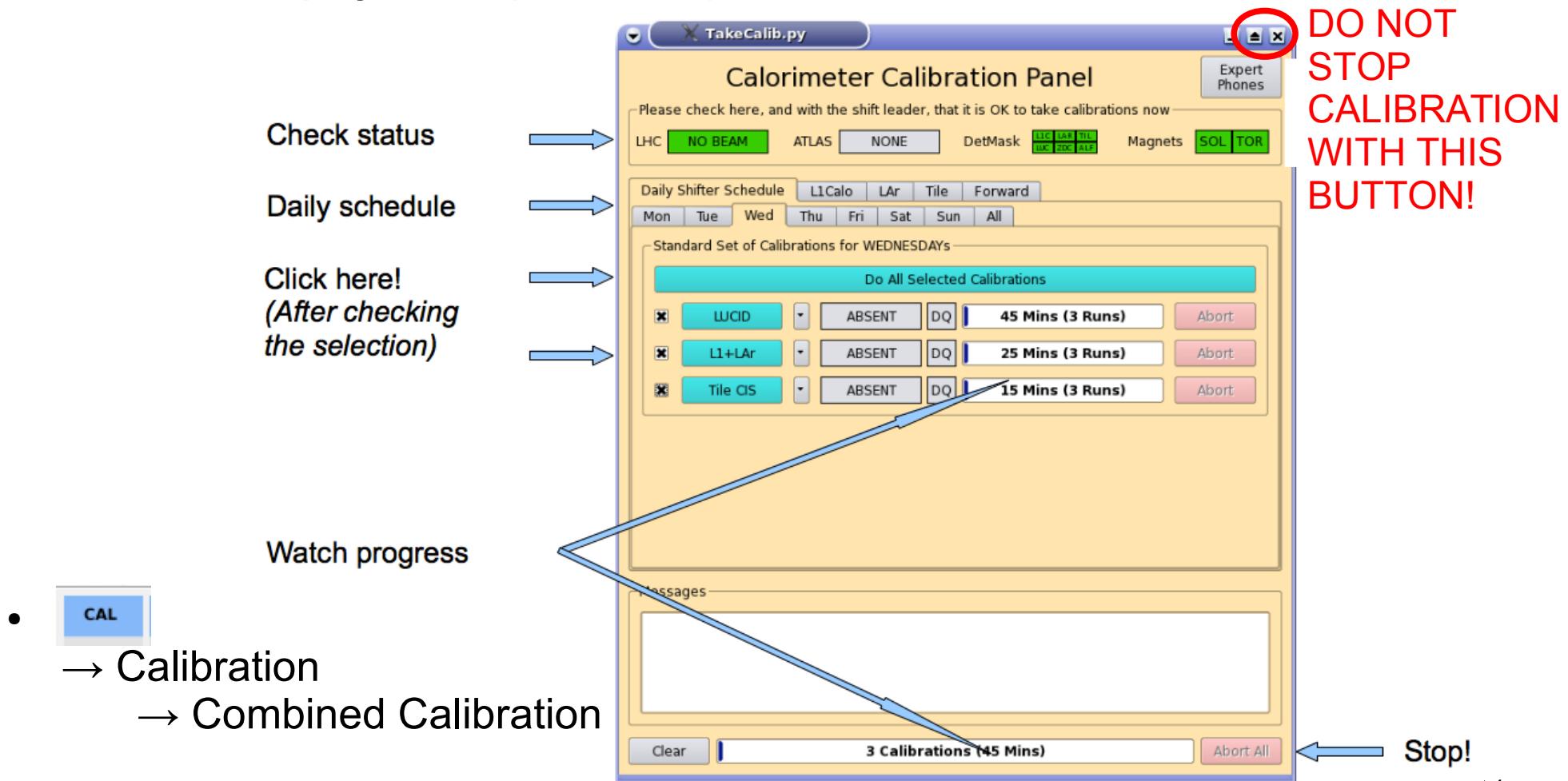
Thu Oct 30 10:39:59 CET 2014

Contact us: Bugs, feedback, improvements (access from outside P1 only). Currently supported browsers: Firefox, Safari, IE.

Access ELisA from the CRD General menu

# Taking calibration

- Calibration will be required ~ on a Daily basis to make sure that the readout works as expected, to update the noise corresponding to every channel and therefore the constants used for the energy calculation
- Info on Twiki page → <https://atlasop.cern.ch/twiki/bin/view/Main/TakeCalib>



# Taking calibration: e-log

- You must submit an e-log after you take a calibration (one for each calib)

When finished,  
submit ELOGs  
*(One for each  
calibration)*



Update subject  
and message  
in case of any  
problems



X TakeCalib: Submit ELOG

### Submit ELOG After Calibration

Username: \_\_\_\_\_ Password: \_\_\_\_\_ Author: \_\_\_\_\_

L1+LAr Tile LUCID

System Affected:

LArg  Tile  Lucid  ZDC  ALFA (RPO)  DAQ  HLT  
 LVL1  DCS  DSS  Network  SysAdmins  
 Counting Room  RunCoord Info  Other

Message Type: LVL1

LVL1\_SubMessage Type: L1Calo

LVL1\_L1Calo-Component: Calibration

Subject: L1+LAr Calibration (Run 190926-190928)

Run 190926: L1+LAr Energy Scan, gain one (EMEC/FCalLowEta), LArTags:EnergyScan  
Run 190927: L1+LAr Energy Scan, gain one (EMB/FCalHighEta), LArTags:EnergyScan  
Run 190928: L1+LAr Energy Scan, default gains, LArTags:EnergyScan

Update the text (if necessary) and click Submit

Submit Cancel

NB this window is new: if it does not work, please submit the ELOG via copy and paste into a browser

# Taking special calibration

Daily Shifter Schedule L1Calo LAr Tile Forward

L1Calo Shifter L1Calo Expert

L1Calo Standalone Calibrations (normally taken on FRIDAYS)

Last L1Calo DAC Scan 12/10/2011 18:06	DAC Scan (20 Mins)	Both DAC and Pedestal Runs (35 Mins)
Last L1Calo Pedestal Run 12/10/2011 18:18	Pedestal Run (20 Mins)	

L1Calo+Tile Calibrations (normally taken on MONDAYS)

Last L1+Tile Energy Scan 10/10/2011 11:11	Tile Energy Scan (15 Mins)	Both Energy and PMT Scans (15 Mins)
Last L1+Tile PMT Scan 10/10/2011 11:14	Tile PMT Scan (10 Mins)	

L1Calo+LAr Calibrations (normally taken on WEDNESDAYS)

Last L1+LAr Energy Scan 12/10/2011 18:56	LAr Energy Scan (25 Mins)	
---	---------------------------	--

Daily Shifter Schedule L1Calo LAr Tile Forward

LAr Shifter LAr EM LAr HecFcal LAr BarrelPS LAr Expert

LAr Daily Calibrations

Last LAr EM Daily 12/10/2011 17:49	EM Daily (30 Mins)	All Daily Calibrations (55 Mins)
Last LAr HecFcal Daily 12/10/2011 18:07	HecFcal Daily (15 Mins)	
Last LAr BarrelPS Daily 12/10/2011 18:17	BarrelPS Daily (10 Mins)	

LAr Weekly Calibrations

Last LAr EM Weekly 01/10/2011 04:33	EM Weekly (50 Mins)	All Weekly Calibrations (85 Mins)
Last LAr HecFcal Weekly 01/10/2011 05:03	HecFcal Weekly (30 Mins)	
Last LAr BarrelPS Weekly 07/10/2011 11:40	BarrelPS Weekly (15 Mins)	

- You may be asked to perform a special individual calibration by the experts/RC.
- You can do this by clicking the sub-detector tabs.

Daily Shifter Schedule L1Calo LAr Tile Forward

Tile Shifter Tile Expert

Tile CIS Calibrations and Pedestal Runs

Last Tile CIS Mono 11/10/2011 09:31	CIS Mono (10 Mins)	Do all Tile CIS and Pedestal Runs (15 Mins)
Last Tile CIS Scan 11/10/2011 09:34	CIS Scan (10 Mins)	
Last Tile Pedestal Run 11/10/2011 09:37	Pedestal Run (10 Mins)	

Tile Laser Calibrations

Last Tile Laser Alpha Scan 11/10/2011 09:50	Laser Alpha Scan (10 Mins)	Do all Tile Laser Runs (50 Mins)
Last Tile Laser LG Scan 11/10/2011 09:54	Laser LG Scan (10 Mins)	
Last Tile Laser Long HG Scan 11/10/2011 10:16	Laser Long HG Scan (40 Mins)	

# Reporting to RCs/experts

---

- Shifter should be ready to report to any expert or RC at any time about
  - the **status** of data taking and issues encountered during the shift
  - as well as to give a brief summary of major events of past 24h [Runs taken, closed/open **issues**, **calibrations** taken, etc...]

# Shadow shifts

---

- If you have never taken shift in the ACR, you **HAVE TO** take **1 block of shadow-shifts**
- This means participate in another shift, few days before your first shift, and learn from the current shifter
- OTP task already in place to book your shadow shifts



# Final Note!

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- If you notice problems in the twiki, outdated material, things not working (that used to!)...

## **LET US KNOW!**

- Send an email to [atlas-calo-shift-coordination@cern.ch](mailto:atlas-calo-shift-coordination@cern.ch)

# Backup – old version

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# Documentation

Have  
always  
open!!

- CAL menu → Shifter Twiki
- Contain a lot of information for shifters/experts; a good reading before the shift and when you have spare time during the shift
- Not all the documentation is going to be complete and up-to-date for M7. Therefore, **for M7, DO NOT TAKE ACTIONS** (power-cycles, reconfiguration, changing the DAQ settings....) just based on the documentation

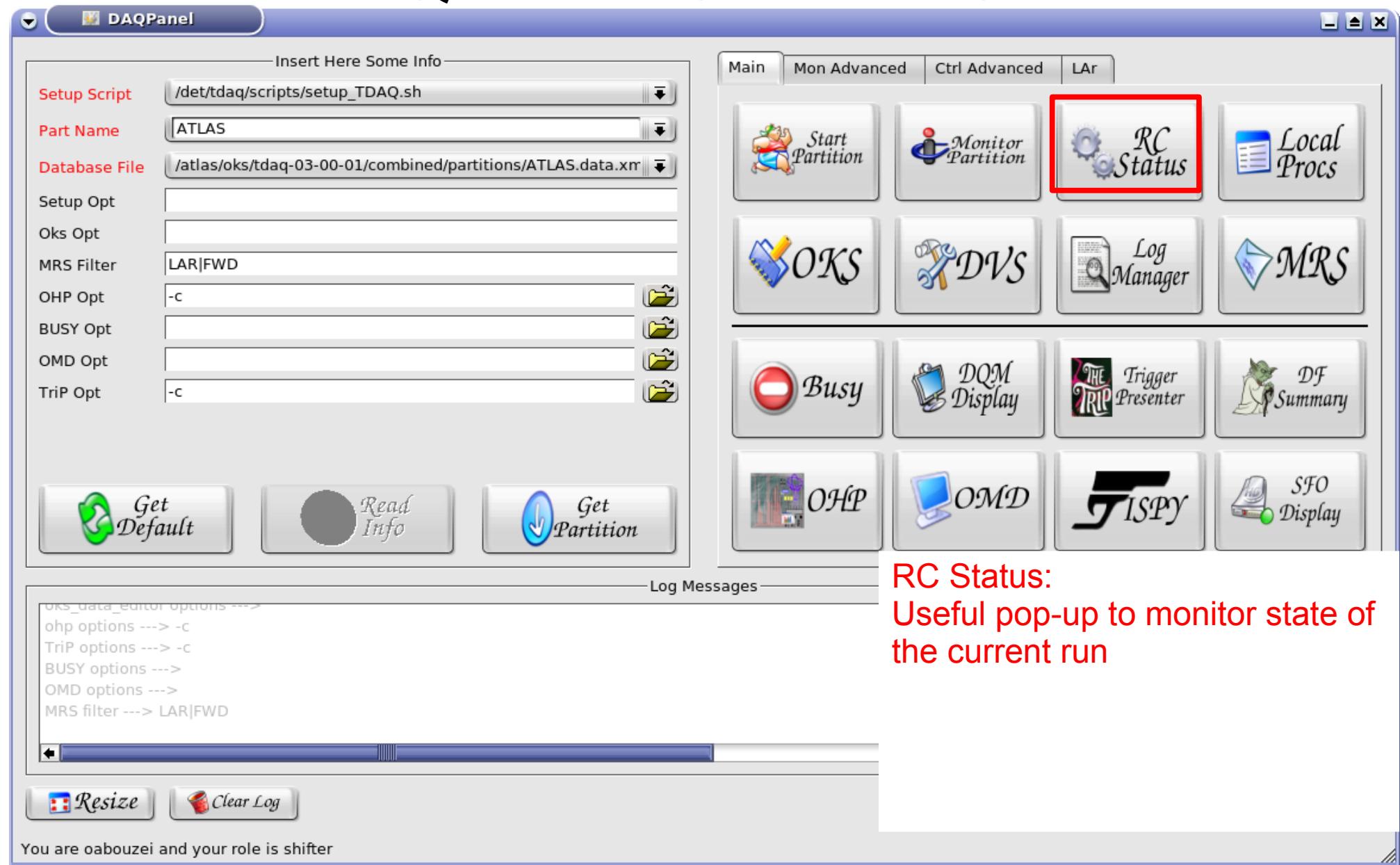
The screenshot shows a web browser window with the following details:

- Header:** File, Edit, View, Go, Bookmarks, Tools, Window, Help.
- Title Bar:** CaloDetOperationManualShifter - Main - ATLAS - Konqueror
- Address Bar:** http://pc-atlas-www.cern.ch/twiki/bin/view/Main/CaloDetOperationManualShifter (2014-10-31, Main.rossetti)
- Toolbar:** Back, Forward, Stop, Refresh, Home, Search, Google.
- Left Sidebar:** Main (Hello rossetti, Create personal sidebar, click to Logout), Main Web (Create New Topic, Index, Search, Changes, Notifications, RSS Feed, Statistics, Preferences), Webs (DcsAlarmHelp, Dcs-smHelp, DcsHelp, Main (LArWebTools, Sandbox, SysAdmins, TWiki)).
- Top Navigation:** Calo Portal, Calo Whiteboard, Shifter Twiki, Phone numbers.
- Main Content:**
  - Operation Twiki for Calorimeter Shifters:** To edit this page, use the [editable version of the page](#) or the [proxy server](#).
  - Twikis for Shifters:** A grid of links:

LAr	Forward	Tile
<a href="#">LAr Operation Manual</a>	<a href="#">LUCID Shifter Twiki</a>	<a href="#">Tile Shifter Twiki</a>
<a href="#">LAr Troubleshooting (Physics)</a>	<a href="#">LUCID Calibration</a>	<a href="#">Tile How-To</a>
<a href="#">LAr Troubleshooting (Calibration)</a>	<a href="#">ZDC Shifter Twiki</a>	<a href="#">Tile Troubleshooting</a>
  - Twikis for Experts:** LAr Expert Twiki, LUCID Expert Twiki, ZDC Expert Twiki, FWD Expert Twiki, Tile Expert Twiki.
  - Tools for Shifters:**
    - [Shifter Task Overview](#) ([Start Here](#))
    - [ATLAS E-LOG \(Most Recent LArg Messages\)](#)
    - [Submit a Bug Report: Savannah](#)
      - Report any inconsistencies in the documentations, suggestions for improvement
    - [LAr ID Translator](#) ([lartranslatool](#)) (GUI to translate LAr coordinates)
    - [Title Eta-Phi->PMT/Chn calculator](#)
    - [LAr Bad \("unhappy"\) channels database](#)
    - [RunCom GUI](#)
    - [Trigger Tool](#)
    - [Log Manager](#)
    - [Other Monitoring Tools at P1](#)
  - Phone Numbers:**
    - LAr Run Coordinator :** **70136** (or 16 2582)
    - FD On-Call Phone :** **71122** (LUCID, ZDC, ALFA/RPO)
    - Tile On-Call (Emergency) Phone :** **16 2581**
  - Other Useful Numbers:**

Calo Desks (ACR)	7 1346, 7 1408
Calo Satellite Control Room (SCR)	7 0962
TDAQ on-call	16 2772
SysAdmin on-call	16 4851
NetAdmin on-call	16 2773
Fire Brigade (non-emergency)	7 4848
Current ATLAS Shifters	<a href="#">ACR Shifters</a>
ATLAS Phones	<a href="#">General Phone List</a>
  - LHC & Detector Status:**
    - [Lar Operation Status](#)
    - [Forward Detector Status](#)
  - How to call a CERN phone from outside**

# TDAQ: Run Control Status



**RC Status:**  
Useful pop-up to monitor state of  
the current run

# TDAQ: MRS

