

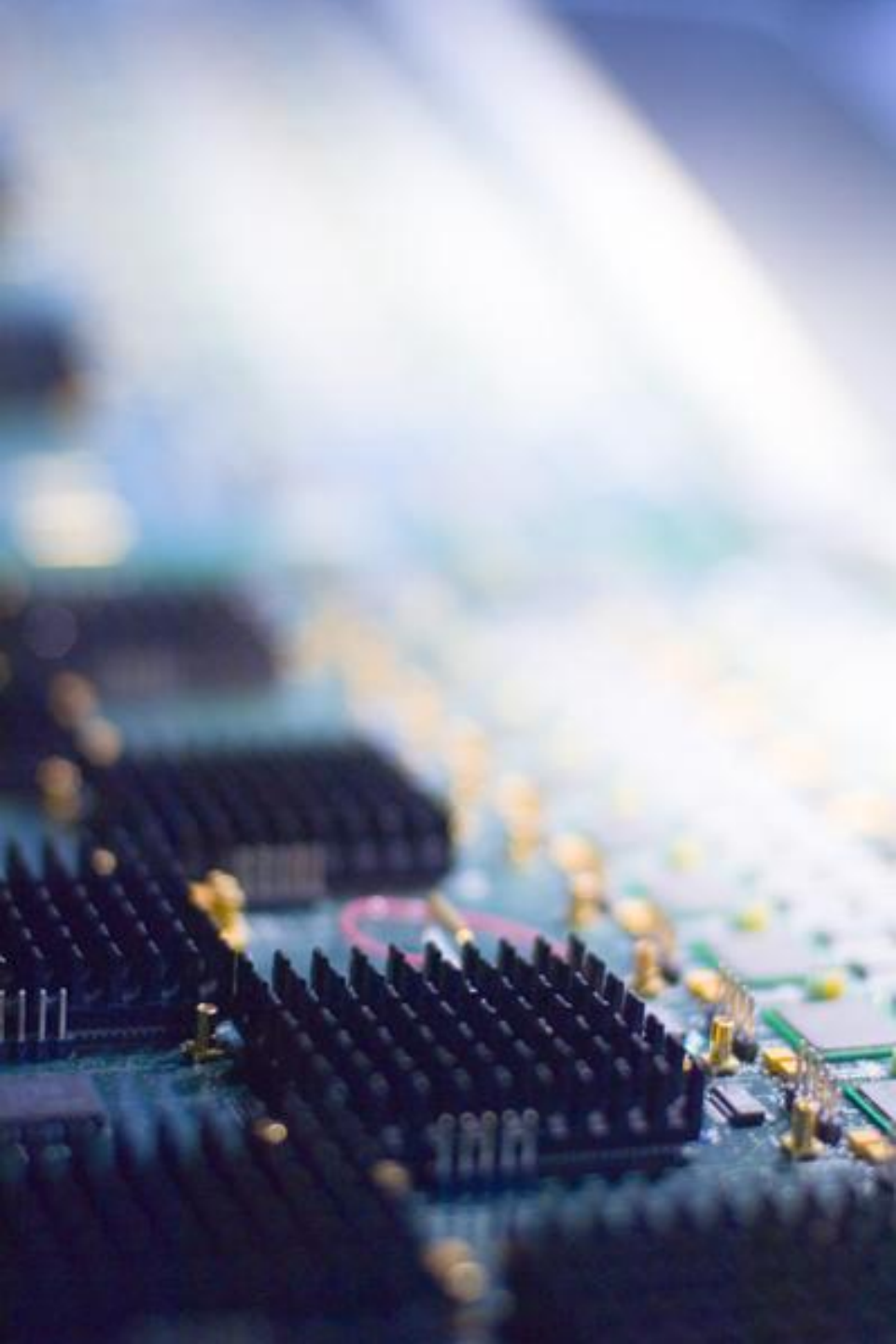


OFFLINE TRIGGER MONITORING

TDAQ Training
1st October 2010

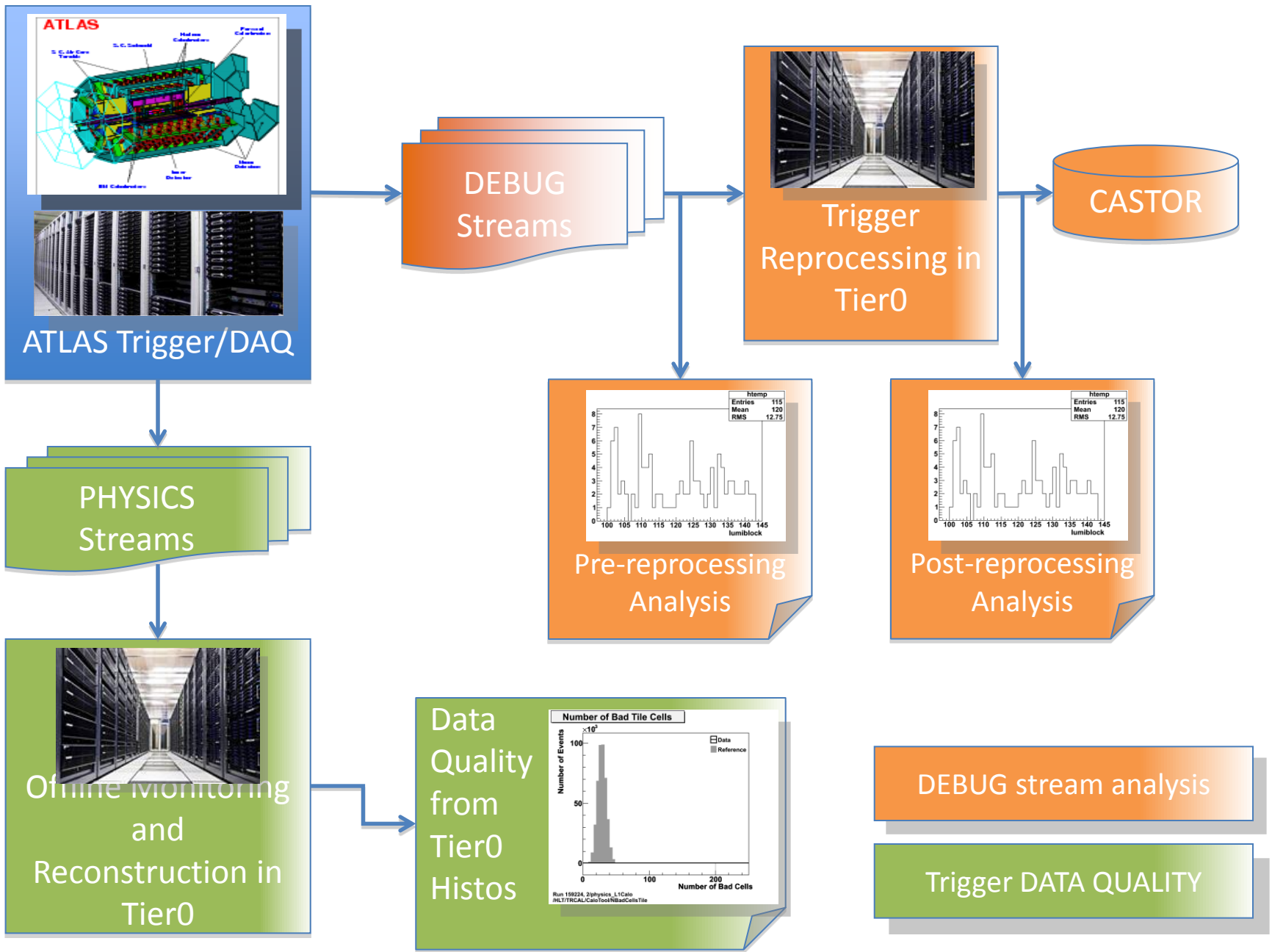
Ricardo Gonalo
On behalf of the Trigger Offline
Monitoring Experts team

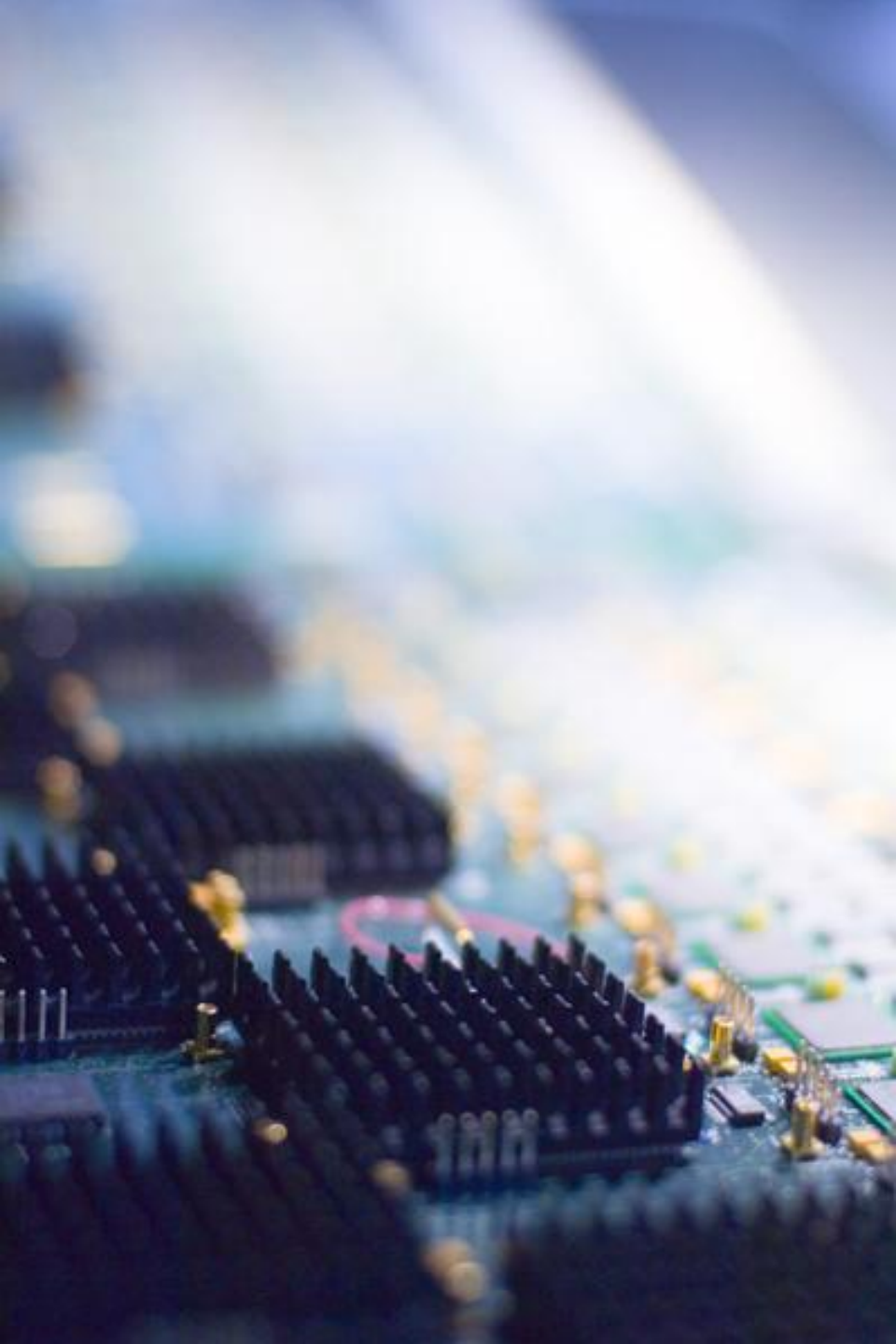




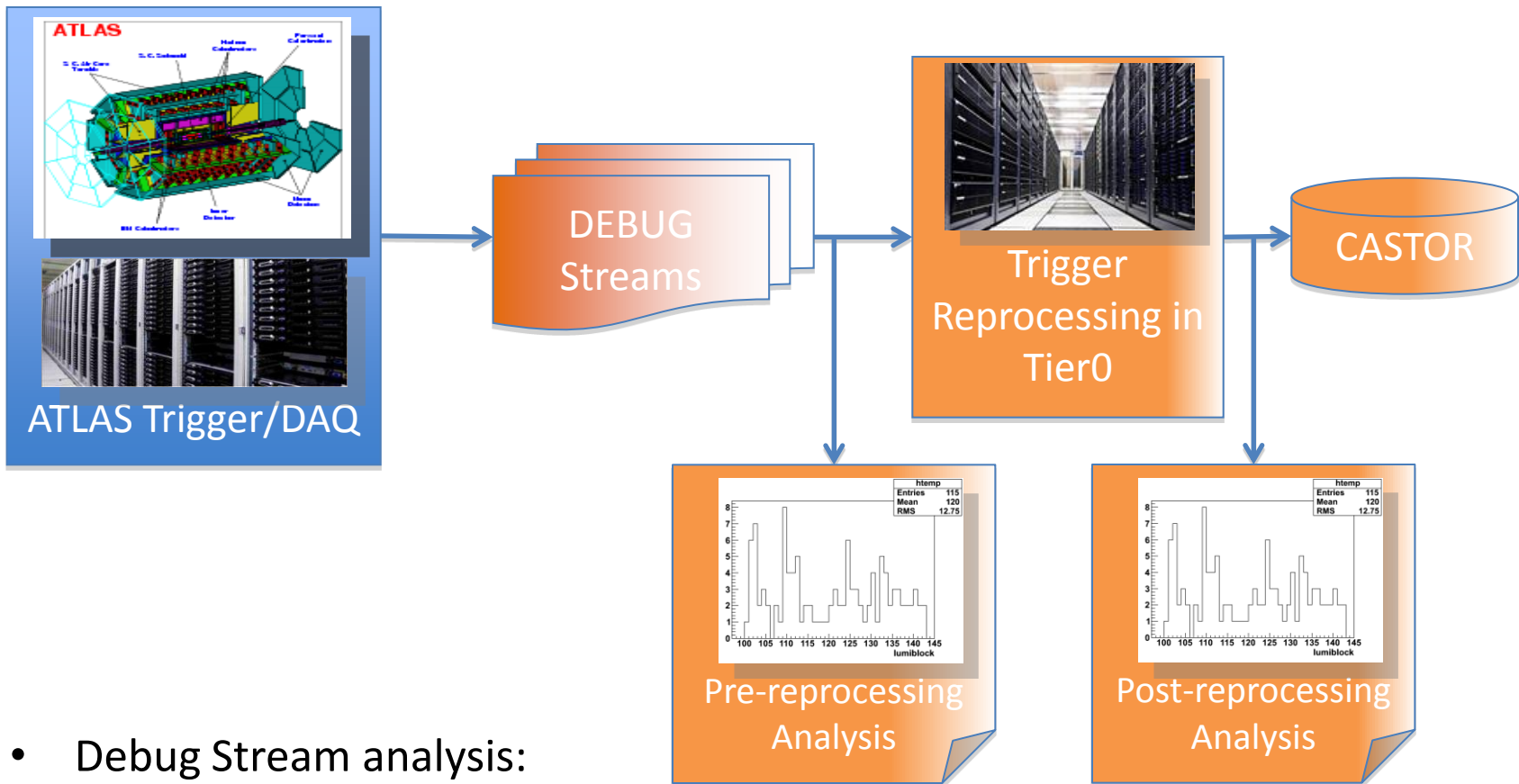
Introduction

- Aims:
 - The offline trigger monitoring shifter has two main tasks:
 - Monitor the DEBUG STREAM analysis and recovery
 - Monitor the trigger DATA QUALITY
- Practicals:
 - The trigger shifter is in constant contact with a Trigger Offline Expert on call
 - A small team of experts rotate to make sure there is always someone on call
 - Will also be able to answer the shifter's questions/doubts
 - The expert will direct the shifter's work
 - Especially in case non-standard operations are needed
 - One shift per day from 9am to 5pm in the TDAQ SATELLITE CONTROL ROOM (SCR)
 - Look for category "TRIGGER OFFLINE MONITORING SHIFTER" (task 46640) in OTP
 - It will be possible to do this shift remotely once the all the tools are available and the LHC is running smoothly – probably sometime in 2011
- Organization:
 - The activity is overseen by Alessandro Di Mattia and is an essential part of the TRIGGER OPERATIONS area
 - It makes sure that the trigger is working without problems and that the data collected is good for analysis





DEBUG STREAM MONITORING





- Debug Stream analysis:
- Events generating failures either in the **DAQ infrastructure** or the **HLT software**, and for which the HLT can't make a decision, are sent to debug streams:
 - ✦ **Timeouts:** debug_EFHltTimeout, debug_efdProcTimeout, debug_L2HltTimeout, etc
 - ✦ **Crashes:** debug_efdPTCrash, debug_L2ForcedAccept
 - ✦ **Algorithm errors** that abort processing: debug_EFHltError, debug_L2HltError
- They are **reprocessed** in the Tier0 and a set of analysis **histograms** are produced **pre-** and **post-reprocessing** to help diagnose the error and the monitor the recovery.

- Debug Stream Monitoring:
https://voatlas17.cern.ch/offmon_new/offlineshifter.php
- Webpage dedicated to the use of the offline shifter and expert on call
- Automatically displays the recorded runs and provides a nice way to **keep the information** about past runs
- Provides access to the debug stream contents and to **analysis histograms** before and after **reprocessing**

Offline Trigger Shifter Monitoring

[Documentation](#) [White Board](#) [Savannah Bug Reporting System](#) [Offline Shifter Elog](#) [Trigger Rates](#)
[Cost Monitoring](#) [T0 Histos Manual](#) [2009 Runs](#) [Checked Runs](#) [Val. Runs as Text](#)

Select search criteria

Run	Events in Debug	Status DBG Proc.	Ev. in Debug after Proc.	Status Tier0 / Cost Monitoring	Run Validation
Run Number: 160035 Tag: data10_comm Link to run info Link to Elog Search		no events to reprocess		 Start Time: 2010-07-24:08:17:03 Stop Time: not yet finished Link to Tier0 Status Link to Tier0 histos	DBG Proc Status: <input checked="" type="checkbox"/> checked DBG Events: <input checked="" type="checkbox"/> checked DBG Histos: <input checked="" type="checkbox"/> checked TIER0 Histos: <input checked="" type="checkbox"/> checked Bug Report No: <input type="text"/> Comment: <input type="text"/> Shifter: <input type="text"/> <input type="button" value="Validation finished"/>
Run Number: 160034 Tag: data10_comm Link to run info Link to Elog Search		no events to reprocess		 Start Time: 2010-07-23:23:17:35 Stop Time: 2010-07-24:08:02:49 Link to Tier0 Status	DBG Proc Status: <input type="checkbox"/> checked DBG Events: <input type="checkbox"/> checked DBG Histos: <input type="checkbox"/> checked TIER0 Histos: <input type="checkbox"/> checked Bug Report No: <input type="text"/> Comment: <input type="text"/>

Centralized location for useful links and documentation

Validated runs, in html or in text, useful for e-log

- Debug Stream Monitoring:
https://voatlas17.cern.ch/offmon_new/offlineshifter.php
- Guides the checks to be done by the shifter for each run.

Offline Trigger Shifter Monitoring

[Documentation](#) [White Board](#) [Savannah Bug Reporting System](#) [Offline Shifter Elog](#) [Trigger Rates](#)
[Cost Monitoring](#) [T0 Histos Manual](#) [2009 Runs](#) [Checked Runs](#) [Val. Runs as Text](#)

Select search criteria

Run	Events in Debug	Status DBG Proc.	Ev. in Debug	Shifter Proc.	Status Tier0 / Cost Monitoring	Run Validation																							
Total events: 0 Luminosity blocks: 3 Run Number: 159835 Tag: data10_cos Link to run info Link to Elog Search Start-End Time: 2010-07-22 02:40:00 2010-07-22 07:26:00 Total events: 7074664 Luminosity blocks: 144 Run Number: 159831 Tag: data10 cos	EFHitTimeout: 115 efdStopTransition: 6 efdProcTimeout: 6	100%	<table border="1"> <tr><td colspan="2">EFHitTimeout:</td></tr> <tr><td>errors/rejected:</td><td>0/0</td></tr> <tr><td>accepted/input:</td><td>115/115</td></tr> <tr><td>L2/EF crashed:</td><td>0/0</td></tr> </table> <table border="1"> <tr><td colspan="2">efdStopTransition:</td></tr> <tr><td>errors/rejected:</td><td>0/0</td></tr> <tr><td>accepted/input:</td><td>6/6</td></tr> <tr><td>L2/EF crashed:</td><td>0/0</td></tr> </table> <table border="1"> <tr><td colspan="2">efdProcTimeout:</td></tr> <tr><td>errors/rejected:</td><td>0/0</td></tr> <tr><td>accepted/input:</td><td>6/6</td></tr> <tr><td>L2/EF crashed:</td><td>0/0</td></tr> </table>	EFHitTimeout:		errors/rejected:	0/0	accepted/input:	115/115	L2/EF crashed:	0/0	efdStopTransition:		errors/rejected:	0/0	accepted/input:	6/6	L2/EF crashed:	0/0	efdProcTimeout:		errors/rejected:	0/0	accepted/input:	6/6	L2/EF crashed:	0/0	✓ Start Time: 2010-07-22:02:40: Stop Time: 2010-07-22:07:29 22 Link to Tier0 Status Link to Tier0 histos EFHitTimeout efdProcTimeout	Shifter: Validation finished DBG Proc Status: <input type="checkbox"/> checked DBG Events: <input type="checkbox"/> checked DBG Histos: <input type="checkbox"/> checked TIER0 Histos: <input type="checkbox"/> checked Bug Report No: Comment: Shifter: Validation finished DBG Proc Status: <input type="checkbox"/> checked DBG Events: <input type="checkbox"/> checked
EFHitTimeout:																													
errors/rejected:	0/0																												
accepted/input:	115/115																												
L2/EF crashed:	0/0																												
efdStopTransition:																													
errors/rejected:	0/0																												
accepted/input:	6/6																												
L2/EF crashed:	0/0																												
efdProcTimeout:																													
errors/rejected:	0/0																												
accepted/input:	6/6																												
L2/EF crashed:	0/0																												

Contact: [Valeria Bartsch](#) and Anthony Rose, 09-06-10

Run details

Links to pre/post analysis histograms

Links to T0 DQ histograms **

Tick on the checks done, link savannah bugs, add comments (optional)

Are there events in the debug stream? Which?

Summary of debug stream analysis

Cost monitoring analysis

** for DQ checks, in next slides

- The HLT reprocessing is controlled by the TOM interface which is also used to **do ad-hoc re-processings** of old runs to test new software, debug errors, etc. At times do special checks on these reprocessings
- Running jobs can be monitored in the conTZole Task Lister: <https://atlas-tz-monitoring-caf.cern.ch/taskLister.html>
- Shifter must check **failing jobs** in reprocessing

conTZole Task Lister
An Interactive ATLAS Tier-0 Monitoring

Monitor | Task Lister | TAG Interface | Dataset Lister | Home

Emergency Contacts
Shifter's Handbook
conTZole Manual

Data
Total tasks: 46 (46)
Total jobs: 7 864
From: 18-07-10, 22:57:39
To: 26-07-10, 22:59:47

Filter
Only tasks satisfying ALL criteria are shown. TAG Upload tasks are listed in a [separate interface](#).

Server filter

UserName (toggle)
 trigmon

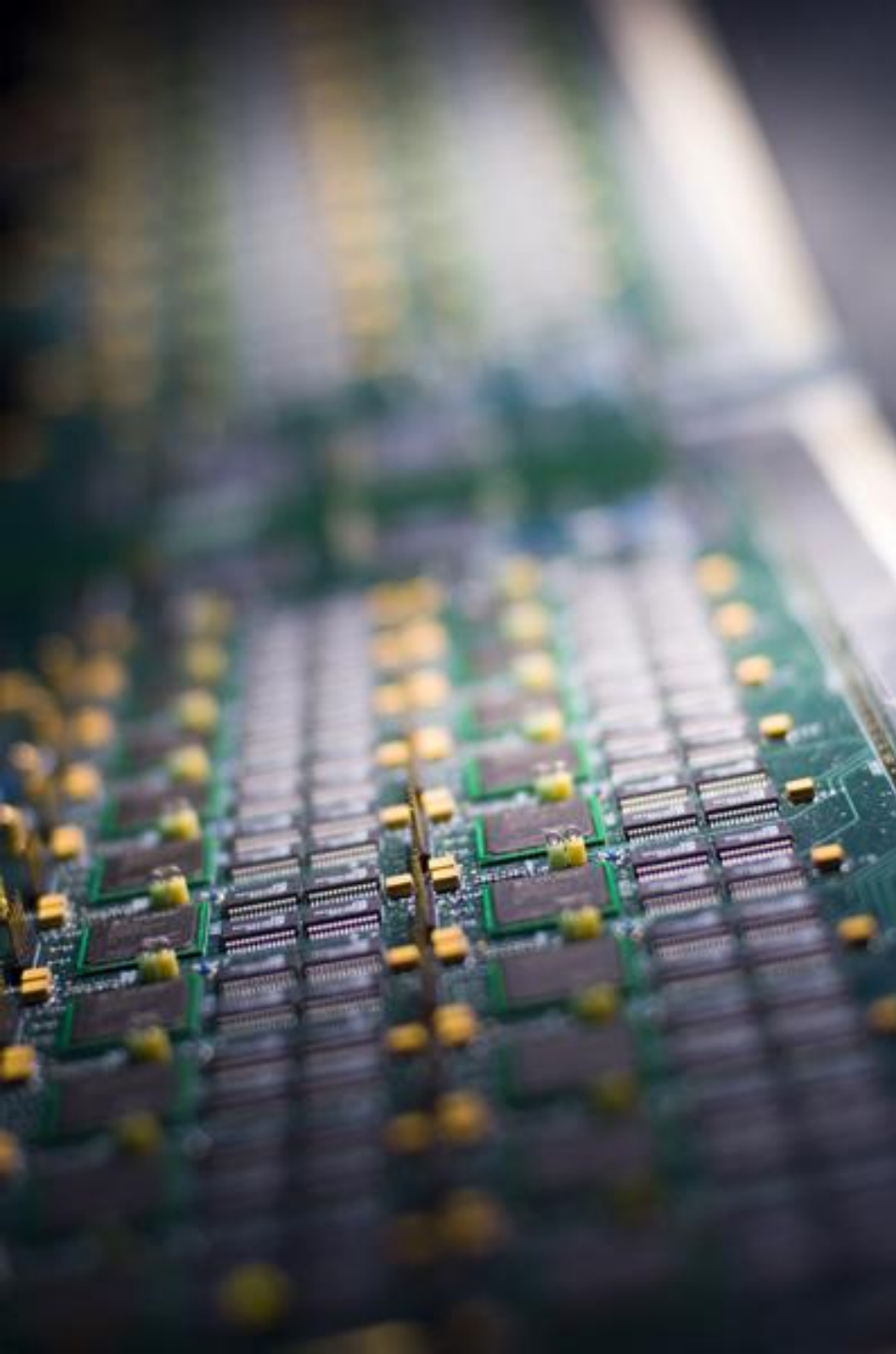
TaskStatus (toggle)
 FINISHED
 RUNNING
 TRUNCATED

TaskType (toggle)
 hltadmerge
 hltcostmon
 hltidesdmerge
 hltidmerge
 hltidesmerge
 hlttupmerge
 hltrecon

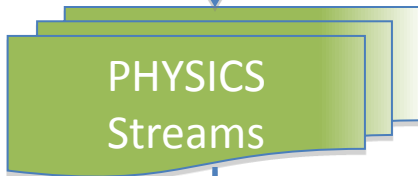
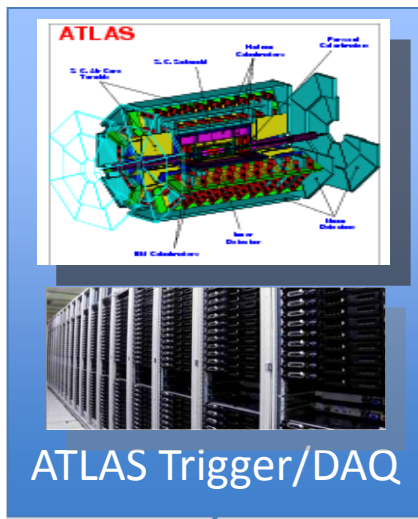
Run No.	Task Name	User Name	Task Information			Job Statistics							
			ID	Type	Status	#Tot	#Done	#I	#F	#Abr	#TJF	#Events	
158218	data10_7TeV.00158268.physics_EnhancedBias.hltreproc.HIST.c270_c271_m250_...	trigmon	356132	hltidmerge	FINISHED	1	1	0	0	0	0	0	0
159815	data10_cos.00159835.debug_all.hltreproc.HIST.g1_m255_m256.hlttupmerge.t...	trigmon	356120	hlttupmerge	FINISHED	1	1	0	0	0	0	0	0
159815	data10_cos.00159835.debug_all.Reproc.HIST.g1_m255.hlttupmerge.task	trigmon	356118	hlttupmerge	FINISHED	1	1	0	0	0	0	0	0
159815	data10_cos.00159835.debug_all.Reproc.RAW.g1_c239.hltcostmon.task	trigmon	356117	hltcostmon	FINISHED	19	19	0	0	0	0	0	0
159815	data10_cos.00159835.debug_all.daq.RAW.g1.hltreproc.task	trigmon	356115	hltreproc	FINISHED	19	19	0	0	0	0	0	0
159815	data10_cos.00159835.debugrec_hltacc.Reproc.RAW.g1.rawmerge.task	trigmon	356119	rawmerge	FINISHED	1	1	0	0	0	0	0	127
159214	data10_7TeV.00159224.debug_all.hltreproc.HIST.g1_m255_m256.hlttupmerge....	trigmon	356089	hlttupmerge	FINISHED	1	1	0	0	0	0	0	0
159214	data10_7TeV.00159224.debugrec_hltacc.Reproc.RAW.g1.rawmerge.task	trigmon	356088	rawmerge	FINISHED	1	1	0	0	0	0	0	428
159214	data10_7TeV.00159224.debugrec_hltre.Reproc.RAW.g1.rawmerge.task	trigmon	356087	rawmerge	FINISHED	1	1	0	0	0	0	0	2
158811	data10_7TeV.00158801.express_express.hltreproc.HIST.c264_c266_m250_m252...	trigmon	356112	hltidmerge	FINISHED	1	1	0	0	0	0	0	0
158811	data10_7TeV.00158801.express_express.hltrecon.DESD_COLLICAND.c264_c266_m2...	trigmon	356101	hltidesdmerge	FINISHED	209	209	0	0	0	0	0	271588
158811	data10_7TeV.00158801.express_express.hltrecon.ESD.c264_c266_m271.hltedm...	trigmon	356100	hltidesdmerge	FINISHED	210	210	0	0	0	0	0	283215
158811	data10_7TeV.00158801.express_express.hltrecon.AOD.c264_c266_m270.hltadm...	trigmon	356099	hltadmerge	FINISHED	21	21	0	0	0	0	0	283215
158811	data10_7TeV.00158801.express_express.hltrecon.NTUP_MUONCALIB.c264_c266_m...	trigmon	356098	hltntupmerge	FINISHED	10	10	0	0	0	0	0	0
158811	data10_7TeV.00158801.express_express.hltrecon.NTUP_TRIG.c264_c266_m254.h...	trigmon	356097	hltntupmerge	FINISHED	5	5	0	0	0	0	0	0
158811	data10_7TeV.00158801.express_express.hltrecon.NTUP_TRKVALID.c264_c266_m2...	trigmon	356096	hltntupmerge	FINISHED	21	21	0	0	0	0	0	0
158811	data10_7TeV.00158801.express_express.hltrecon.HIST.c264_c266_m250.hltidm...	trigmon	356095	hltidmerge	FINISHED	5	5	0	0	0	0	0	0
158811	data10_7TeV.00158801.express_express.Reproc.RAW.c264_c266.hltrecon.task	trigmon	356094	hltrecon	FINISHED	441	441	0	0	0	0	0	283215
158811	data10_7TeV.00158801.express_express.hltreproc.HIST.c264_m255_m256.hltthi...	trigmon	356093	hlttupmerge	FINISHED	1	1	0	0	0	0	0	0
158811	data10_7TeV.00158801.express_express.Reproc.HIST.c264_m255.hlttupmerge....	trigmon	356092	hlttupmerge	TRUNCATED	441	0	0	0	441	882	0	0
158801	data10_7TeV.00158801.express_express.Reproc.HIST.c264_m255.hlttupmerge....	trigmon	356091	hlttupmerge	FINISHED	9	9	0	0	0	0	0	0
158801	data10_7TeV.00158801.express_express.merge.RAW.c264.hltreproc.task	trigmon	356090	hltreproc	FINISHED	441	441	0	0	0	0	0	0
158268	data10_7TeV.00158268.physics_EnhancedBias.hltreproc.HIST.c270_m255_m256...	trigmon	356131	hlttupmerge	FINISHED	1	1	0	0	0	0	0	0
158268	data10_7TeV.00158268.physics_EnhancedBias.hltrecon.DESD_COLLICAND.c270_c2...	trigmon	356130	hltidesdmerge	FINISHED	852	852	0	0	0	0	0	1629814
158268	data10_7TeV.00158268.physics_EnhancedBias.hltrecon.ESD.c270_c271_m271.hl...	trigmon	356129	hltidesdmerge	FINISHED	855	855	0	0	0	0	0	1811562
158268	data10_7TeV.00158268.physics_EnhancedBias.hltrecon.AOD.c270_c271_m270.hl...	trigmon	356128	hltadmerge	FINISHED	130	130	0	0	0	0	0	1811562
158268	data10_7TeV.00158268.physics_EnhancedBias.hltrecon.NTUP_MUONCALIB.c270_c...	trigmon	356127	hltntupmerge	FINISHED	66	66	0	0	0	0	0	0
158268	data10_7TeV.00158268.physics_EnhancedBias.hltrecon.NTUP_TRIG.c270_c271_m...	trigmon	356126	hltntupmerge	FINISHED	10	10	0	0	0	0	0	0
158268	data10_7TeV.00158268.physics_EnhancedBias.hltrecon.NTUP_TRKVALID.c270_c2...	trigmon	356125	hltntupmerge	FINISHED	153	153	0	0	0	0	0	0
158268	data10_7TeV.00158268.physics_EnhancedBias.hltrecon.HIST.c270_c271_m250.h...	trigmon	356124	hltidmerge	FINISHED	9	9	0	0	0	0	0	0
158268	data10_7TeV.00158268.physics_EnhancedBias.Reproc.RAW.c270_c271.hltrecon....	trigmon	356123	hltrecon	TRUNCATED	885	884	1	0	1	4	1811562	0
158268	data10_7TeV.00158268.physics_EnhancedBias.Reproc.HIST.c270_m255.hlttupm...	trigmon	356122	hlttupmerge	FINISHED	18	18	0	0	0	0	0	0
158268	data10_7TeV.00158268.physics_EnhancedBias.merge.RAW.c270.hltreproc.task	trigmon	356121	hltreproc	FINISHED	885	885	0	0	0	0	1	0
158268	data10_7TeV.00158268.physics_EnhancedBias.merge.RAW.c269.hltreproc.task	trigmon	356116	hltreproc	TRUNCATED	885	0	0	3	882	1767	0	0
158268	data10_7TeV.00158268.physics_EnhancedBias.hltreproc.HIST.c267_c266_m250_...	trigmon	356114	hltidmerge	FINISHED	1	1	0	0	0	0	0	0
158268	data10_7TeV.00158268.physics_EnhancedBias.hltreproc.HIST.c267_m255_m256...	trigmon	356113	hlttupmerge	FINISHED	1	1	0	0	0	0	0	0
158268	data10_7TeV.00158268.physics_EnhancedBias.hltrecon.DESD_COLLICAND.c267_c2...	trigmon	356111	hltidesdmerge	FINISHED	104	104	0	0	0	0	0	194073

hlttupmerge01	recon.HIST	<input type="radio"/> On <input type="radio"/> Off	not used	---	built in
hlttupmerge03	recon.HIST	<input type="radio"/> On <input type="radio"/> Off	not used	---	built in
hltntupmerge01	recon.NTUP	<input type="radio"/> On <input type="radio"/> Off	not used	---	built in
hltadmerge01	recon.AOD	<input type="radio"/> On <input type="radio"/> Off	not used	---	built in
hltidesdmerge01	recon.ESD	<input type="radio"/> On <input type="radio"/> Off	not used	---	built in
hltidesdmerge01	recon.DESD	<input type="radio"/> On <input type="radio"/> Off	not used	---	built in

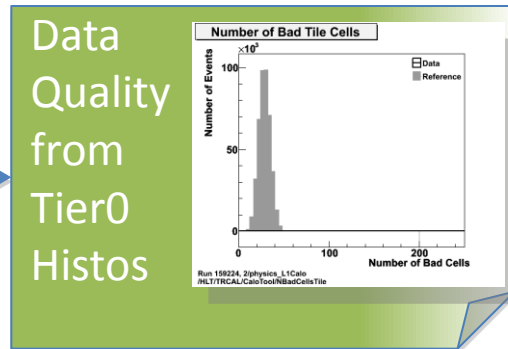
Update TOM Configuration



TRIGGER DATA QUALITY ASSESSMENT



- The trigger software is monitored **online** – each trigger algorithm running on each working node publishes monitoring histograms
- ...and **offline** – monitoring algorithms run in **Tier0** during event reconstruction and produce histograms from online trigger data and comparisons from offline, etc
- This will be increasingly the task of the offline trigger shifter
- **Slice experts take care of checking the monitoring data from each run at the moment**



Trigger DATA QUALITY

Tier 0 DQ Monitoring

Please consider to

Run 159224, 2/physics_L1Calo

Change source: Tier

Display results from

Submit

• [Online Shifter](#) (click here to make an ONLINE shift entry)

***Indicates reconstruct

For extra information on

Run Number	Iterati
160152	ES1: x
160151	ES1: x
160149	ES1: x
160143	ES1: x
160131	ES1: x
160093	ES1: x
160091	ES1: x
160086	ES1: x
160078	ES1: x
160038	ES1: x
160037	ES1: x

Flag Summaries f

[Entire Run](#)

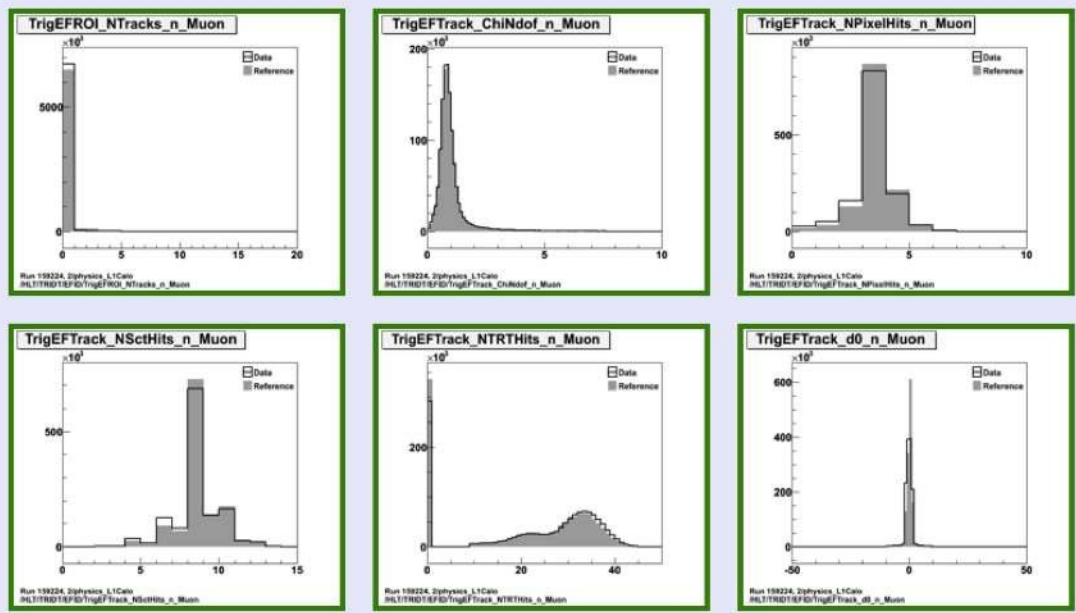
Run 159224, 2/physics_L1Calo: Monitoring and Automatic Checks

DQ Tree

- Overall Status: **Red**
- CaloMonitoring: **Yellow**
- CentralTrigger: **Green**
- Global: **Green**
- HLT: **Red**
 - TRBJT: **Green**
 - TRBPH: **Green**
 - TRCAL: **Green**
 - TRELE: **Green**
 - TRGAM: **Green**
 - TRHLT: **Green**
 - TRIDT: **Green**
 - Common: Undefined
 - EFID: **Green**
 - IDSCAN: **Green**
 - Shifters: **Green**
 - SITrack: **Green**
 - TRTSegFinder: **Green**
- TRJET: **Green**
- TRMBI: **Red**
- TRMET: **Green**
- TRMUC: **Green**
- TRTAU: **Green**
- InnerDetector: **Red**
- JetTagging: **Green**
- Jets: Undefined

Run 159224, 2/physics_L1Calo HLT/TRIDT/EFID

Click on images for details and full size.



- Go to <https://atlasdqm.cern.ch/webdisplay/tier0/>
- Click on the stream and run that you like, e.g. 159224/L1Calo
- Look under HLT: each link corresponds to a trigger domain: e.g. HLT->TRIDT->EFID

- Once you determine if a run is good or bad, update the corresponding **Data Quality (DQ) flags** – only the “**ShiftOFFLINE**” flags are updated by the shifter
- To update DQ flags go to: <https://atlasdqm.web.cern.ch/atlasdqm/DQBrowser/DBQuery.php>

Help DQMonitoring RunSummary DQP1 Twiki Atlas Operations

Data Quality DB Status browsing

Subsystem to be displayed:

Run info:
 Run number to: (optional)

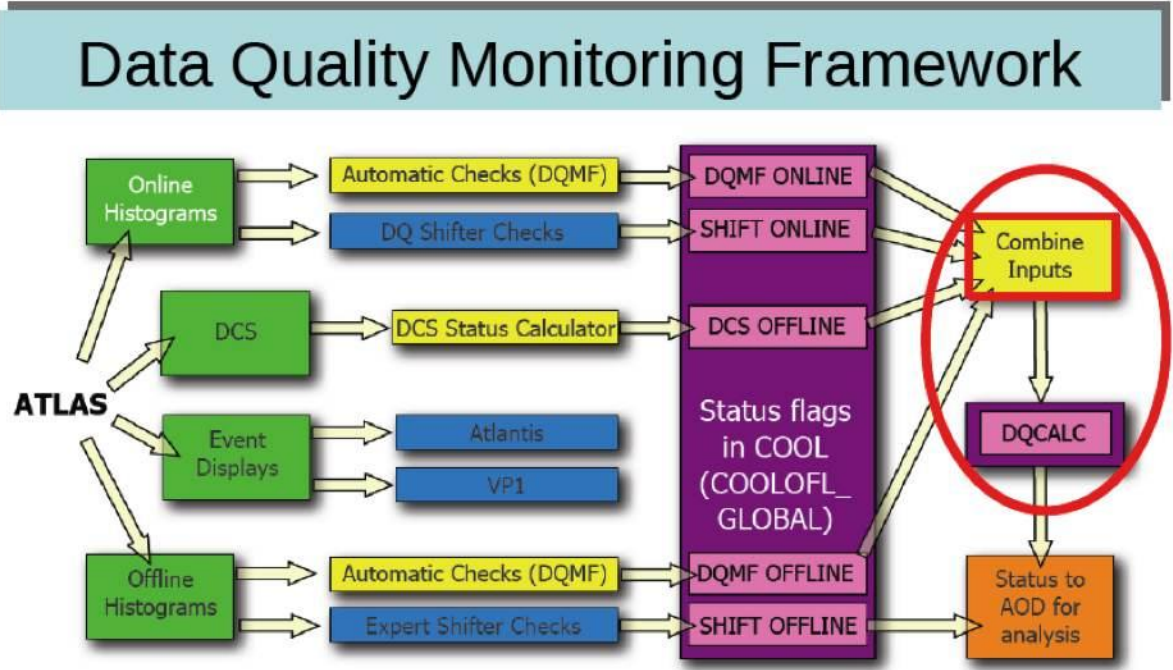
Database info:
 DB Instance Tag

For experts **BULK UPLOAD**
 upload status with a text file of runs directly into SHIFT OFFLINE
[Format of runlist](#)

no file selected

System: [Options](#)

Good Flawed Bad



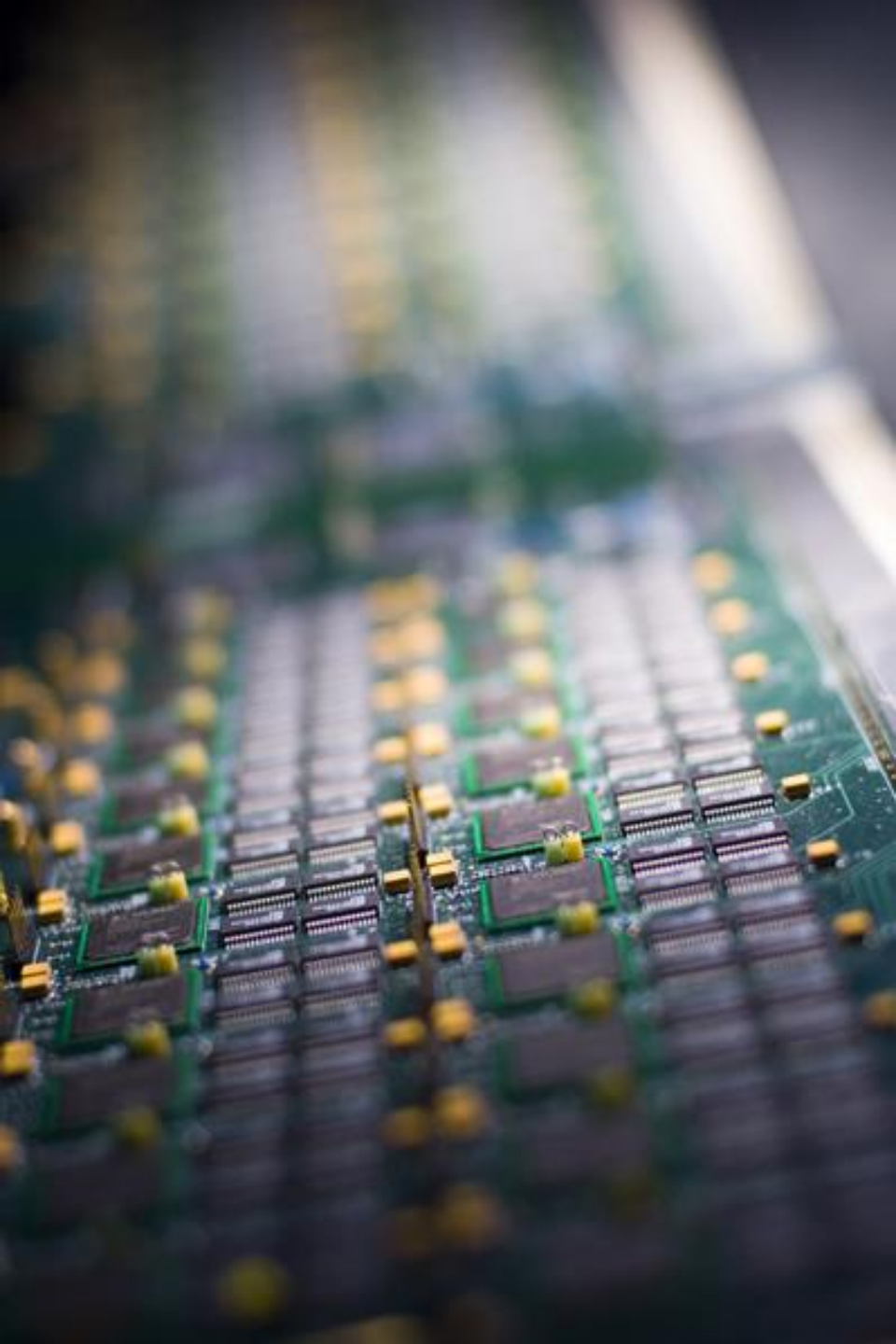
- Results from online and offline checks of histograms, and offline checks of DCS information **combined** with online DQ shifter inputs provide DQ status for each detector.
- Offline expert DQ shifter can override this **DQ decision**.
- Final DQ status for each sub-detectors passed to combined performance groups (e.g. egamma, jets/ETmiss, muons etc) who make decision about suitability for use in physics analysis.

- The flags are then combined with the DQ flags set online and automatically by DQMF and used to select data for analysis using the Good Run Lists
- The shifter can also choose different flags for different luminosity blocks according to stable beams/hlt active.

Search Result

Selection rule: find run 159796, 159810, 159814, 159821, 159831, 159835, 159950 / show dq tr and str debug/ nodef
 Query command: [Click to expand/collapse command...]
 Selection sequence: Checking for runs in run range [[159796, 159796], [159810, 159810], [159814, 159814], [159821, 159821], [159831, 159831], [159835, 159835], [159950, 159950]]
 No. of runs selected: 7
 Total no. of events: 24,218,715
 Execution time: 2.2 sec

Run	Links	#LB	Start and endtime (CEST)	#Events	Data quality (SHIFTOFL)															
					TRTB (SHIFTOFL)	TRTEA (SHIFTOFL)	TRTEC (SHIFTOFL)	TRTTR (SHIFTOFL)	TRCAL (SHIFTOFL)	TRBJT (SHIFTOFL)	TRBPH (SHIFTOFL)	TRCOS (SHIFTOFL)	TRELE (SHIFTOFL)	TRGAM (SHIFTOFL)	TRJET (SHIFTOFL)	TRMET (SHIFTOFL)	TRMBI (SHIFTOFL)	TRMUO (SHIFTOFL)	TRTAU (SHIFTOFL)	TRIDT (SHIFTOFL)
159950	DS, RS, BS, AMI, DQ, NEMO, ELOG, DCS:SoR/ EoR	327 (116 s)	Thu Jul 22 2010 23:51:24 – Fri Jul 23, 10:25:55	891,784 (23.4 Hz)	U	U	U	n.a.	B	B	B	n.a.	R	G	B	B	B	B	R	B
159835	DS, RS, BS, AMI, DQ, NEMO, ELOG, DCS:SoR/ EoR	144 (118 s)	Thu Jul 22 2010 04:40:57 – 09:26:28	7,074,664 (413.0 Hz)	U	U	U	n.a.	B	B	U	n.a.	B	B	B	B	B	G	B	B
159831	DS, RS, BS, AMI, DQ, NEMO, ELOG, DCS:SoR/ EoR	134 (119 s)	Thu Jul 22 2010 00:00:13 – 04:27:25	9,251,152 (577.1 Hz)	U	U	U	n.a.	B	B	B	n.a.	B	B	B	B	B	B	B	B
159821	DS, RS, BS, AMI, DQ, NEMO, ELOG, DCS:SoR/ EoR	50 (115 s)	Wed Jul 21 2010 21:52:03 – 23:28:29	3,243,182 (580.5 Hz)	U	U	U	n.a.	B	B	B	n.a.	B	B	B	B	B	B	B	B



DOCUMENTATI ON



Jump

Search

Atlas All webs

Atlas

[ATLAS Homepage](#)
[ATLAS Collaboration](#)[ATLAS TWiki](#)
[Public Results](#)
[Physics](#)[Detectors](#)
[Trigger](#)
[Computing](#)
[Data Preparation](#)
[Documentation Help](#)
[Help](#)
[Glossary](#)

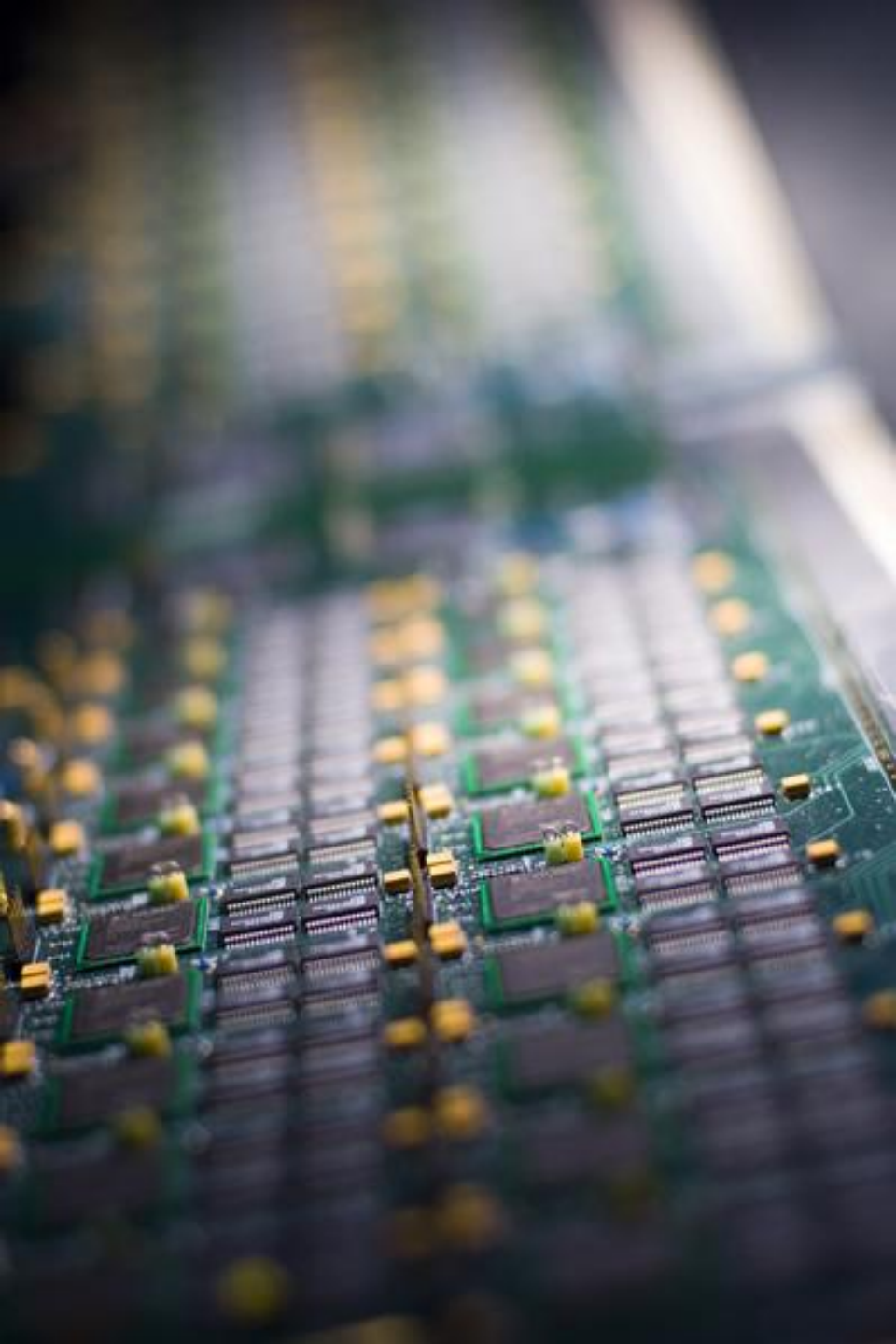
Create a LeftBar for this page

[NEW TWiki Search](#)
[RicardoGoncalo](#)
[SSO logout](#)TWiki > [Atlas Web](#) > [TriggerDAQ](#) > [AtlasTrigger](#) > [TriggerOperationManuals](#) > [OfflineMonitoringTriggerShifterInstructions](#)
(25-Jul-2010, RicardoGoncalo)[Edit](#) [Attach](#) [PDF](#)Not yet
Certified as
ATLAS
Documentation

Offline Monitoring Trigger Shifter Instructions

- ↓ [Introduction](#)
 - ↓ [Hours](#)
 - ↓ [Overview of the system](#)
 - ↓ [Your Duties:](#)
 - ↓ [Ask the expert:](#)
- ↓ [Setting up your working environment](#)
- ↓ [Your workflow while on shift](#)
 - ↓ [Look at the White board](#)
 - ↓ [Get an overview of recent runs](#)
 - ↓ [Look at the logbook \(#Elog\)](#)
 - ↓ [Look at the daily program](#)
 - ↓ [Work through the list of runs to be processed](#)
 - ↓ [Check the output from Jobs Re-running the Trigger](#)
 - ↓ [Document your work](#)
 - ↓ [Tidy up](#)
 - ↓ [Make a Shift Summary](#)
- ↓ [HOWTO perform specific tasks](#)
 - ↓ [Perform the DEBUG stream analysis](#)
 - ↓ [Analysing the debug stream events using cost monitoring ntuples](#)
 - ↓ [The Tier0 monitoring histogram interface](#)
 - ↓ [Update the Offline Data Quality Flags](#)
 - ↓ [The Checks to be done for every run](#)
 - ↓ [Check the Reprocessing histograms](#)
 - ↓ [Location in CASTOR of files produced by the Trigger reprocessing](#)

Go through the instructions and arrange to do a **shadow shift** before you take your first shift, so you can get used to the tools.



SUMMARY

- What do you need in order to do this shift?

- Follow this training
- Get a savannah account
- Go over the instructions twiki
- After the training you'll be able to book your shift in OTP
 - Look for “Trigger Offline Monitoring Shifter” (task 46640) in your OTP page
- Shadow someone before you do your first real shift

The screenshot displays a web interface for managing shifts. At the top, there are links for "Add a requirement" and "Email all members". The main title is "Shifter (Trigger Offline Monitoring Shifter)". Below this, there are configuration fields: "Title" (Trigger Offline Mon), "Recognition" (Operation Task), "Capped At 8h" (checked), "Shift Format" (Complex), and "Percentage" (0). An "Add Shift" button is visible. Below the configuration, there is a table with columns "From", "To", and "Description". Two shifts are listed: "9-17 Day Shift" and "15-23 Evening Shift". Below the table is a calendar view for July 10, with a dropdown for "4". The calendar shows a grid of days with colored cells (red, green, grey) representing shift availability. A tooltip for "Allocated Members" shows "GOMEZ FAJARDO LUZ STELLA (100%)".

- What will you do during the shift?

- Check reprocessing and analysis of DEBUG STREAM
- Check TIER0 Trigger histograms for OFFLINE DQ
- Check results of ad-hoc reprocessings if necessary
- Always be in contact with the offline trigger expert – inform her/him of what you find

ATLAS Electronic logbook for the ATLAS experiment	
<input type="button" value="Submit"/> <input type="button" value="Preview"/> <input type="button" value="Back"/>	
Fields marked with * are required	
Entry time:	31.08.10 17:10
valid*:	valid
User*:	jgoncalo
Rem_IP*:	128.141.141.141
Author*:	Morais Silva Goncalo Ricardo Jose
Message Type*:	Shift Summary
ShiftSummary_Desk*:	Trigger
Trigger_Topic*:	<input type="radio"/> Online <input checked="" type="radio"/> Offline
System Affected*:	<input type="checkbox"/> Pixel <input type="checkbox"/> SCT <input type="checkbox"/> TRT <input type="checkbox"/> ID G <input type="checkbox"/> Event Displays <input type="checkbox"/> Magnets <input type="checkbox"/> Safety <input type="checkbox"/> Other
Status*:	<input type="radio"/> open <input checked="" type="radio"/> closed
Subject*:	Trigger Offline Monitoring
B <u>U</u> # FONT	
Blah... blah... blah...	

- What will you do at the end of your shift?
 1. Write an informative e-log summary
 - Remember to specify in the subject that this is trigger offline monitoring
 2. Write anything new in the Offline monitoring Whiteboard for the next shifter

- And remember, all ATLAS data is important!
 - Good Data Quality Monitoring is essential for good physics data
 - Data reprocessings are essential to maintain and improve the trigger
 - The debug stream analysis is essential to debug the trigger... and it may even show new physics!

