

DQM news

Technical side

Web tools

- Advantages
 - Can be ran out of P2 with access rights
 - Centrally maintained -> can't be altered on machines
 - Modern languages and paradigms -> easier maintenance





http://aldaqweb.cern.ch/amore/

AMORE Agents Manager Modules Self-Service Configuration Files Database Editor Logout

ALICE DQM - AMORE

Admins DQM responsables Admins DQM responsables Admins only

Tools

| | | | |
|---|---|---|--|
|  Modules Self-service |  Agents manager |  Configuration files editor |  Database editor |
|---|---|---|--|

Note : tools that you are not allowed to access are not shown.

Documentation

- AMORE main documentation
 - AMORE GUI handbook
 - Developer Manual
 - Downloads
- DQM shifter wiki

Contacts

- For general enquiries, questions or problems with the DQM contact [alice-dqm-contact](#)
- In case of technical problems with a tool or this website, please contact [alice-datesupport](#).

Agents Manager



- DQM shifters will be able to use it but at the moment they must use the former amoreAgentsManager
 - Access rights will need to be taken from Glance/SAMS
- DQM responsables will be able to use it from anywhere
 - BEWARE !
Do not stop or restart production agents, it would confuse the DQM shifter. At least inform him/her beforehand.
Everything is logged.
- DQM experts continue to start and stop non-production agents from the control room using the command line

Module self-service

AMORE

Agents Manager

Modules Self-Service

Configuration Files

Data

AMORE module release self-service

By clicking *Submit* you promise the following :

- The spec file has been updated with the correct dependencies and description
- The changelog has been updated
- All the changes have been committed

Module name

amoreDAQ

Submit

Step 1 : Review module information

Module name : amoreDAQ

Current version : 2.54-1

Compile and validate

Step 2 : Compiling and validating

Output

```
Started by user ALICE DAQ Continuous Integration
Building remotely on DQM slave (afs dqm date) in workspace /home/aldaqci/jenkins/workspace/AMORE-
single-module
Updating https://svn.cern.ch/repos/alicedaq/Software/amore_modules/trunk at revision
'2015-01-27T09:25:08.182 +0100'
U      amoreTRD/VERSION
U      amoreTRD/rpm.spec
U      amoreTRD/Makefile
At revision 9321
[AMORE-single-module] $ /bin/sh -xe /tmp/hudson1290120049791194711.sh
+ sudo yum clean all
Loaded plugins: changelog, downloadonly, kernel-module, protectbase, refresh-
: packagekit, security, tsflags, versionlock
Cleaning repos: alice-daq epel slc6-extras slc6-os slc6-updates
Cleaning up Everything
+ sudo yum update -y
Loaded plugins: changelog, downloadonly, kernel-module, protectbase, refresh-
: packagekit, security, tsflags, versionlock
Setting up Update Process
```

Cancel

Module self-service

Step 3 : Check compilation and validation result

Compilation and Validation Ok

Output

```
rm: cannot remove `filelist': No such file or directory
Ran 1 test.
  Passed : 1
  Failed : 0
With 3 assertions.
  Passed : 3
  Failed : 0
  Skipped : 0
  Errors : 0
finished test infoTime.db.txt info.db.txt
Recording test results
Finished: SUCCESS
```

By clicking on *Tag and build RPM* the program is going to

- commit the new version number (current version is 2.54-1)
- create a new tag
- produce a new rpm

version (X.Y)

release

Tag and build RPM

Step 4 : Rpm creation and tagging



Module self-service

Step 5 : Check rpm creation results

Compilation and Validation **Ok**

Output

```
Committed revision 9323.  
move global tag  
  
Committed revision 9324.  
  
Committed revision 9325.  
done  
[AMORE-single-module-release] $ /bin/sh -xe /tmp/hudson7161224264165337806.sh  
+ rpmName=amoreDAQ-2.55-0.x86_64.rpm  
+ rpmDir=/home/aldaqci/rpm/RPMS/x86_64/  
+ cp /home/aldaqci/rpm/RPMS/x86_64//amoreDAQ-2.55-0.x86_64.rpm /tmp  
Finished: SUCCESS
```

Create ticket

→ Create a JIRA ticket for the DAQ

Module release with self-service

- **Custom module** release procedure
 - Write code
 - Test code
 - Commit code
 - Go to website, choose module and version
 - Compilation and validation, with feedback
 - If successful, creates a JIRA ticket for DQM developers
 - Asap, DQM dev release and install at P2

Release – QA framework

- QA detector code
 - Write code in AliRoot
 - Test code
 - Commit code in AliRoot
 - Ask for port to release
 - Discussion on Monday's meeting
 - If agreement, new release tag on Tuesday
 - Barth creates new RPM, test all modules and AMORE
 - If no problem, release and install at P2 at the next occasion

CDH v3 & Event Header 3.14

- Data format has changed during LS1
- Numerous problems in AliRawReader* classes
- Several issues already fixed
- Report to offline in case of problems, CC Daniele [and Barth]

OCDB Snapshot

- Fresh snapshot made yesterday for 2015
- If default objects missing, contact Raffaele Grosso, CC Daniele [and Barth]

P2 machines

- ❑ P2 machines have been renamed
- ❑ DQM machines : aldaqdqm01-aldaqdqm05
 - ❑ Many cores, 2 GB per core.
 - ❑ Shared file system
 - ❑ Better use *sshdqm* and *sshrole* than *ssh* to connect from arc
- ❑ ARC stations : arcXXX
 - ❑ Ask Roberto Divia for details
 - ❑ *arcdqm* is the station of the dqm shifter
- ❑ Gateway non-interactive : aldaqgw01-gpn02
 - ❑ From inside replace *gpn* by *daq*

Reminder about novelties

- As presented during the kickoff meeting (see backup slides for details)
 - Maskable objects quality
 - Selective image creation
 - Trending
 - Automatic restart of production agents (not enabled yet)

Time for discussion !

- AMA (on the subject)

Backup slides

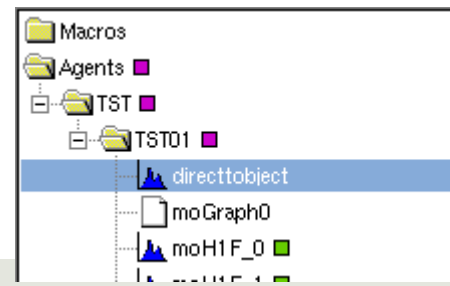
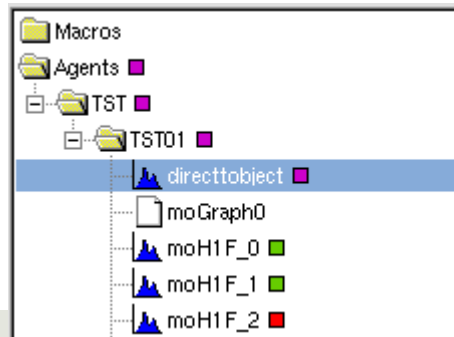
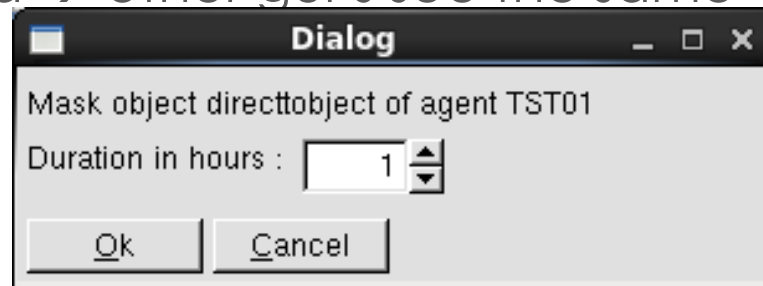
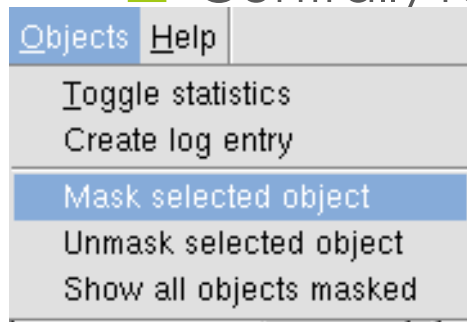
Detector readiness

| | | AC | CC | PV | DACE | MC | FM | IHM | MC | MT | PH | CP | MIS | DSD | SP | DSSD | TO | TOFT | PCTR | DTRD | VO | ZDC | Ver | HLT | Trig | MFT | FIT | MID |
|---------------|----------------------------------|----|-----|----|------|-----|----|-----|-----|-----|----|----|-----|-----|----|------|----|------|------|------|-----|-----|-----|-----|------|-----|-----|-----|
| Email Replied | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dev sys | working | - | - | | | | | | | | | | | | | | | | | | | | | | | | | |
| | up to date | - | - | | | | | | | | | | | | | | | | | | | | | | | | | |
| QA | Tested in dev sys | | No | - | | | | No | | | | No | | | | No | | | | | | | - | | | - | | |
| | Tested at P2 | | No | - | | | | No | | | | No | | | | No | | | | | | | | | | - | | |
| | Plans to modify it | ? | | - | ? | No | ? | No | ? | ? | ? | ? | ? | No | ? | No | No | ? | ? | No | Yes | ? | ? | - | ? | ? | ? | |
| | Plans to convert to custom modul | ? | Yes | - | ? | Yes | ? | Yes | Yes | Yes | ? | ? | ? | ? | No | No | ? | ? | MB | No | ? | ? | - | ? | ? | ? | ? | |
| Custom | Tested in dev sys | - | - | | | | | | | | | | | No | | - | - | | | | | | | | | No | | |
| | Tested at P2 | - | - | | | | | | | | | | | No | | - | - | | | | | | | | | No | | |
| | Plans to modify it | - | - | No | | - | - | Yes | | - | | | | No | | - | - | ? | | - | | | | | Yes | | | |
| Test files | New test files | | | | | | | | | | | | | | | | | | | | | | | | | | | |

This can't reflect the reality, thus please inform us about your progress.

Maskable objects quality

- Possibility to hide temporarily the quality of objects
- Centrally recorded → other gui's see the same

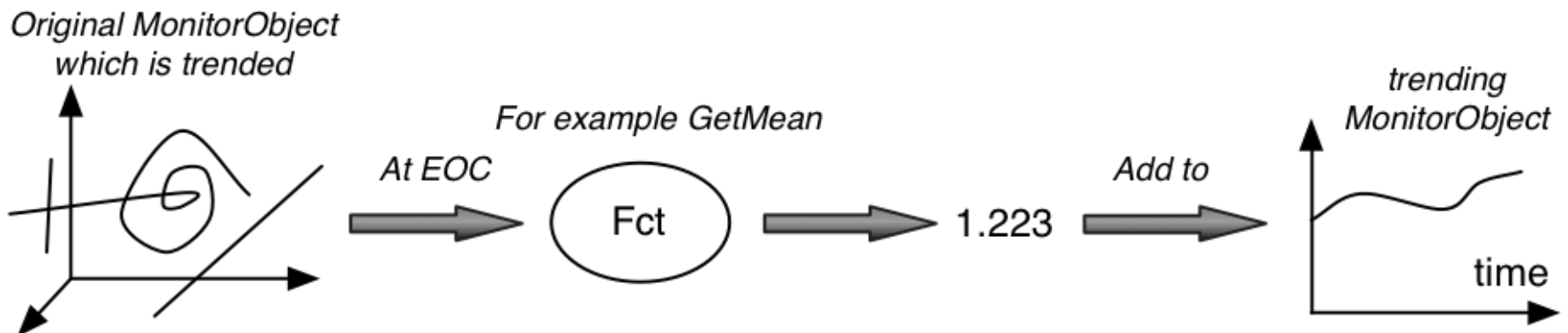


Selective image creation

- image_generation=1 in DB for an agent
 - Images of **each** object
 - Costly operation
- images_<det>.configfile
 - List objects for which images are generated
 - Single file for all agents of a detector
 - <det> = detector 3 letters code (uppercase)

Trending

- Custom modules
 - Possibility to trend a MonitorObject
 - Over a fill or a run
 - Using a user-defined function returning a double
 - Adds an extra object (TH2 or Tgraph) to the agent containing the results of this function vs time



Trending with amoreQA

- In your config file :

```
Trend1 Default/hRawsOccupancyVsSector newPlotName
                                trendMean getMean run 120 5 shifter
h2f
```

- Function `getMean` defined in macro

- Load the macro from config file

```
_macroLoad1 exampleTrendMacro.C
```

- See documentation for details

Automatic restart of agents

- Agents marked as *production* are restarted automatically
- Check every 60 seconds (configurable)
- If restarted more than 5 times in the past 30 minutes, do not restart again
 - Should we take any other action ??
- Can be enabled or disabled globally at P2

Reset policy

Custom modules only !
QA reset always at SOR.

- Option 1
 - Implement publisher's Reset()
 - E.g. call myHisto->Reset()
 - It is called when the command is sent from gui or when explicitly called from the publisher, eg SOR

- Option 2 (can be combined with Option 1)
 - Set a specific reset policy on certain objects
 - *kResetObjectAtLaunchAndNewRun*: Every time the agent starts or receive a new run, the object is reset.
 - *kResetObjectAtNewRunOnly*: At startup, the object is reloaded from the database if we are still in the same run. At SOR the object is reset.
 - *kResetObjectDoNothing*: The framework never resets this object. It lets the module handle this by itself. **This is the default policy for all objects.**
 - *kResetObjectAtNewFillOnly* : At startup, the object is reloaded from the database if we are still in the same fill. At SOR the object is reset if the fill has changed.