



Status of the OMD Requirements document

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Outline :

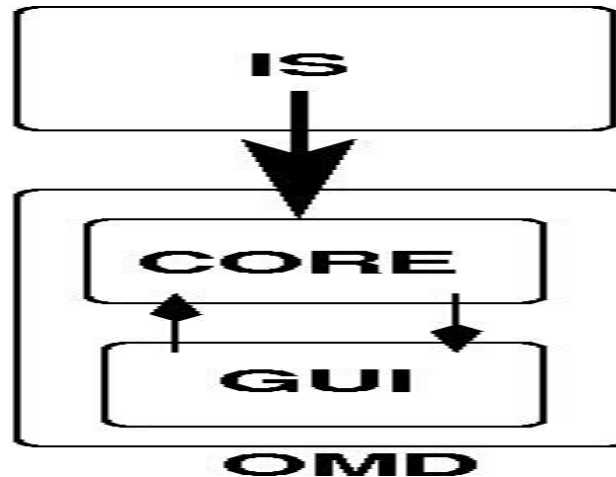
- Introduction
- Requirements
- Summary

Introduction:

- ATLAS detector includes about 140 millions electronic channels, and a high event rate \implies a monitoring system is essential in order to assess the status of the system.
- The ATLAS T/DAQ group offers various services to share information among processes (IS, OHS..);
- Various monitoring tools are already available, however a display to quickly assess the status of the system and its performance has not yet been provided;
- OMD stands for Operational Monitoring Display;
- The Aim of OMD is to provide a comprehensive, flexible, configurable display application for on-line monitoring data.
- OMD is needed for operational purposes (infra-structure, not physics related quantities..)
- Second Draft of the Requirements for Operational Monitoring Display has been distributed around.
- The actual prototype is provided by Sami Kama.

OMD General Description

The OMD flow diagram:



- OMD only interacts with Information Service (IS)
- OMD CORE subsystem receives information data from IS
- GUI configures OMD CORE subsystem and displays results to the user

Both shifter and expert modes are available and handled by the OMD configuration.

OMD Requirements

- OMD shall be able to process the new information when it is made available by IS;
- OMD received monitoring data from various parts of TDAQ system via subscription method;
- OMD provides a GUI with a configurable display for easy access of the desired monitored parameters;
- OMD shall display intuitive summary outputs: either in form of tables, time evolution graphs;
- OMD shall be able to perform simple operations: sums, average, comparison of monitored values with expected values provided by TDAQ/detector or subsystem experts in order to quickly asses the status of the system.
- No negative impact on the data taking flow and the control flow!

More Requirements

- Functional Requirements are broken into: Configuration, Operation, and Output parts.
- OMD allows the DAQ/Detector expert to identify which parameters to be monitored;
- OMD allows the DAQ/Detector expert to define the reference values for any defined parameter;
- OMD shall be able to execute operations to analyse IS information: check if parameter is below/above reference thresholds, summing and comparisons to reference thresholds;
- OMD shall display alarm/warning messages when deviations are observed.

Current Issues

- Document presented and discussed at the last Monitoring Working Group:
 - clearer goal and separation from DQMF
- Document needs more use case examples to guide detector representative where their information should be displayed/monitored
- The OMD prototype (Sami Kama) is being tested right now at CERN \implies better knowledge of monitored variables!

Summary and Outlook

- The purpose of OMD is to quickly assess the status of the TDAQ system and its performance, therefore only simple operations will be performed
- Some basic requirements have been covered in this talk, for more please see the document.
- Prepare a new version of the document which will include more use cases for the next week.