
CERN

Accelerator Fault Tracking

Status and Roadmap

Chris Roderick, BE-CO

MARP, 09-03-2017
https://indico.cern.ch/event/619073/

Accelerator Fault Tracking Project

Beams Department Project, launched in 2014

Based on initial inputs from: LHC Beam Operation Workshops, Availability Working Group, Workshop on Machine Availability & Dependability for Post-LS1 LHC, Beam Operations teams

Goals:

- Capture consistent & complete fault data
- Facilitate fault tracking for all interested parties
- Single source of data – easier to complete, clean & analyse.
- Provide consistent - standardised statistics, analyses, reports for different uses (daily / weekly reports for meetings and follow-up providing easy summaries)
- Interactive overview of faults (cardiogram on demand)
- Proactively identify incomplete data

Target audiences:

- Operators: easily track faults, identify how operational procedures may be tuned.
- Equipment Groups: follow their system failures, operational impact, identify improvements.
- Management: recognise progress, endorse consolidation strategies etc.
- Working Groups targeting availability and reliability improvements (AWG, R2E): knowledge base for their studies and proposals for improvement strategies.

AFT Staged Planning

Stage 1: (2014-onwards)

Providing infrastructure to collect operations view-point data for LHC

Including the cardiogram

Structures in place to fold in equipment data

Stage 2:(2016-onwards)

Increasing support for equipment group requirements

Produce combined equipment and operations viewpoints

Extended scope to cover Injector Complex needs

Detailed integration of Technical Infrastructure data

Stage 3: (2017-onwards)

Connect to other data services at CERN (INFOR EAM, LAYOUT)

Fully integrated transverse view

https://wikis.cern.ch/display/AFT/AFT+Development+Roadmap

AFT Staged Planning

Stage 1: (2014-onwards)

Providing infrastructure to collect operations view-point data for LHC

Including the cardiogram

Structures in place to fold in equipment data

Stage 2:(2016-onwards)

Increasing support for equipment group requirements

Produce combined equipment and operations viewpoints

Extended scope to cover Injector Complex needs

Detailed integration of Technical Infrastructure data

Stage 3: (2017-onwards)

Connect to other data services at CERN (INFOR EAM, LAYOUT)

Fully integrated transverse view

https://wikis.cern.ch/display/AFT/AFT+Development+Roadmap