


# HLT Online Monitoring

- future dates for on-line tests:  
Technical Runs, MX runs, 24 h periods
- what do we want to do
  - HLT Data Quality
  - TriggerRates

# Technical Run (February)

next **technical run** planned for Feb 4 – 11  
parallel to FDR -1 ( share SFOs with FDR)

## aims:

- reestablish **DAQ/HLT running** as before Xmas  
after shutdowns, interventions, new hardware, recabeling etc.
- new TDAQ release **TDAQ-01-08-04**
- most probably **no HLT algorithms**   
only “TDAQ dummy”  
also no steering --> no DQ histos, no steering histos, no HLT rates
- use/test of **OMD** (Sami) possible (wanted and needed)

# Milestone Run 6

next **milestone run M6** March 3-9

- Mon - Thu: days dedicated to subdetectors ( ~ thursdays for DAQ/HLT )
- weekend: combined running with 24/7 running (night shifts)
- maybe spare day: march 10

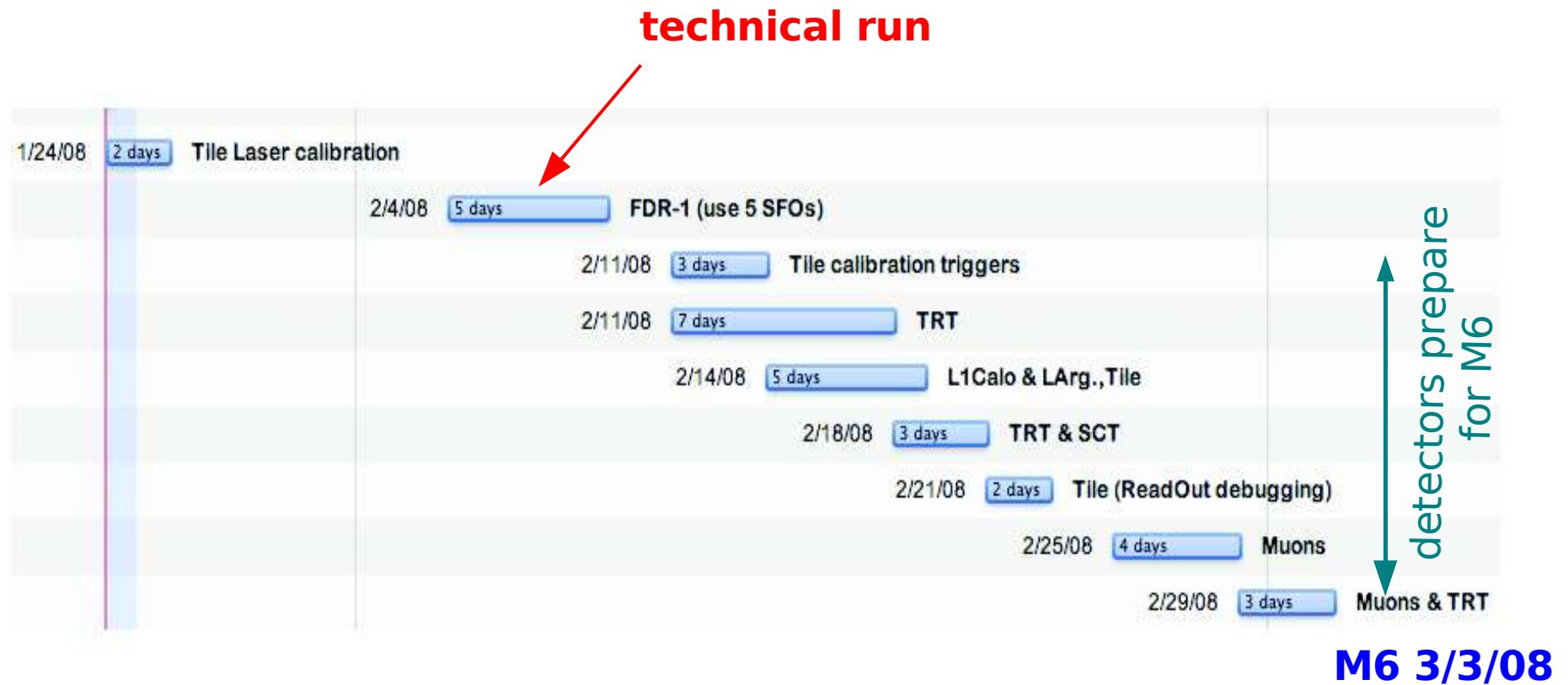
## preparations for M6 :

- **technical run** in February
- **24 hr periods**
  - 1-day-technical runs:
    - 1/week, all (?) final DAQ/HLT hardware for DAQ/HLT tests
- **muon week** ( 4days from Feb 25)



# Preparations for M6

## timeline : preparations for M6



\*from David Francis

## what happens after M6?

new software (releases foreseen just before M6)

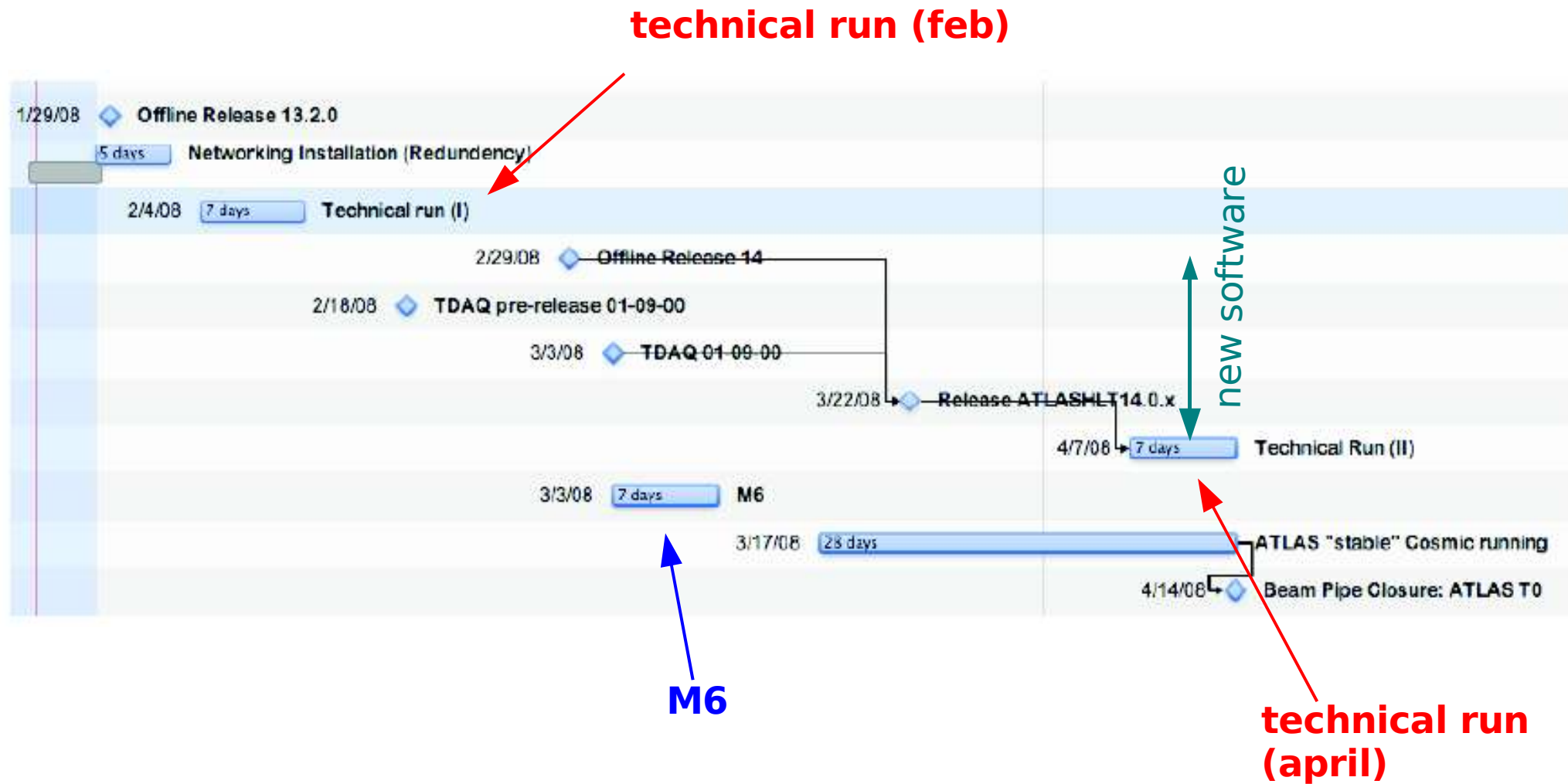
- offline-14.0.0 ~ Feb 26
- TDAQ-01-09-00 ~ Mar3
- new HLT release ~ Mar 22

test new software on pre-series machines

- 'official schedule' closure of beam pipe ~ april
  - Technical run ~ 2<sup>nd</sup> week of april  
not using final hardware but on pre-series  
new software
  - TDAQ period in stable cosmic running on final hardware  
changes: test on pre-series, then move to final hardware
- IF change of schedule - close beam pipe later than april  
“normal” technical run 7-11 April

# After M6

## timeline : after M6



\*from David Francis

next opportunities for **on-line tests**:

need DAQ running L2 and EF with HLT algorithms!

- **muon week** - algorithms for muon slice
- **M6** rather than technical run(Feb) - mainly muon slice
- **24 h periods** - tests with full menu (in 13.2.30)

## TO DO:

(Martin, CR)

**aim**: more complete picture DQ@HLT for M6

- communicate changes in new TDAQ release (e.g. in DQMF) with slice DQ responsables
- add histograms and DQMF/OHP configuration for most slices
- test new software, customized DQFM algorithms in new release
- implement more complete evaluation (DQMF and OHP) of histograms

# Activities related to TriggerRates



- **TriggerPresenter TriP** (Judita)

same dates (muon week, M6, 24h) for testing  
also needs HLT and algorithms to get  
input HLT-Steering histograms

- **LVL1 subsystem rates** (Judita, David Berge, CR)

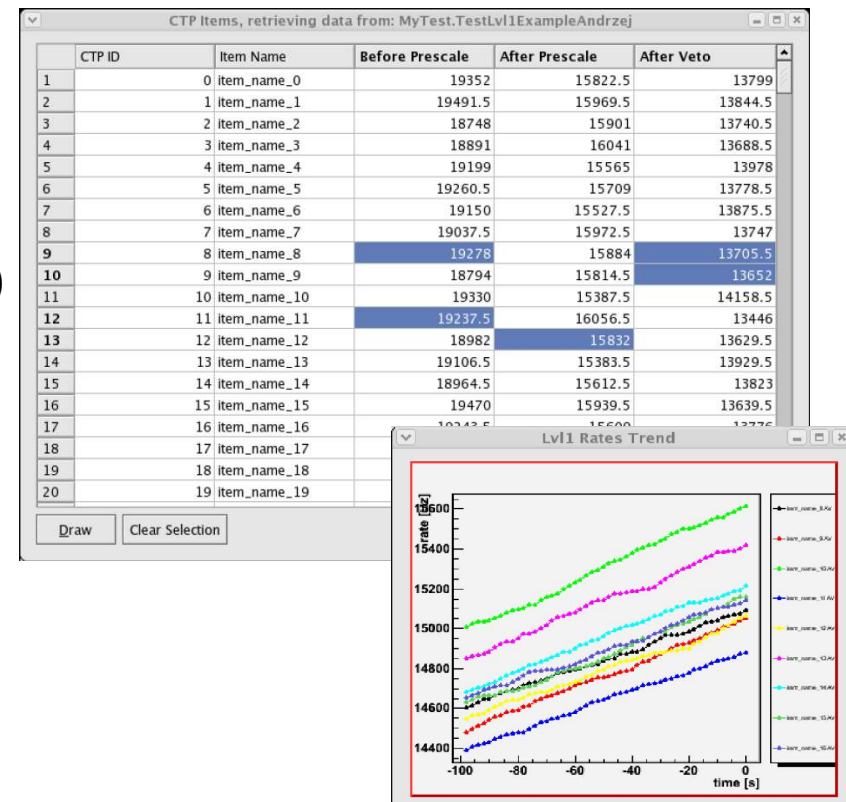
last summer: implementation of **LVL1 CTP** (Andrzej)  
rates into TriggerPresenter (Judita, CR)

interest from **LVL1 subsystems**

LVL1-subsystems: make sure info is on IS (David)

add display based on Andrzej's code (CR)

*shouldn't be much work, otherwise LVL1  
people should find someone to contribute...*





# Activities related to TriggerRates

- writing of **HLT counts to COOL database** (CR)
  - info for on-line Lumi calculation: stored in LB folders  
e.g. L1 counts, # LHC cycles
  - add **info from HLT**:
    - # events** (input, before & after prescale, after passthrough)
    - for LB** accepted at L2 and EF (total, chains)
    - extract info from HLT-Steering histograms
  - Writer based on **example code from LVL1**



## problems:

- Where to run HLTCOOLWriter in P1: part of DQMF algo? standalone?
- When to call it?  
Once per LB, when is it finished at HLT?

# Summary

important dates coming up:

**technical run** February 4-1

**M6** March 3-9

**technical run** 2<sup>nd</sup> week of April

soon:

**stable cosmic running**

tests only possible on pre-series,  
then move to final hardware

satellite control room for DQ (offline)  
... online DQ monitoring stays  
in main CR!

