ALICE MUON Software for run 3

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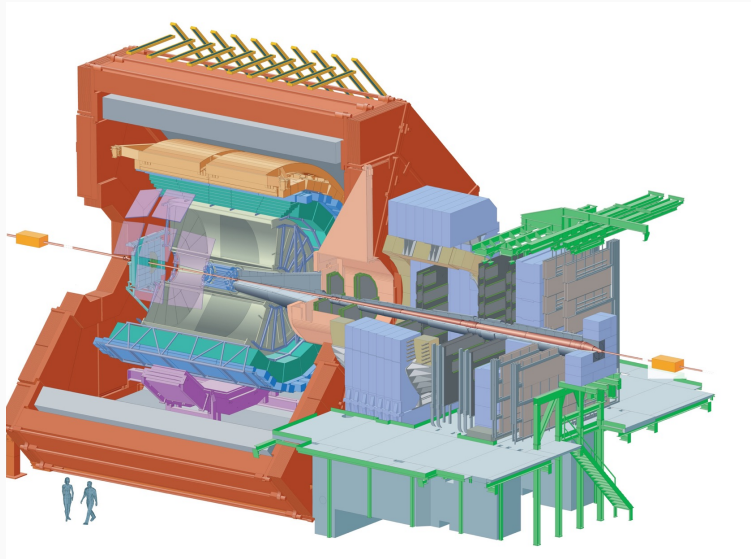July 6, 2016

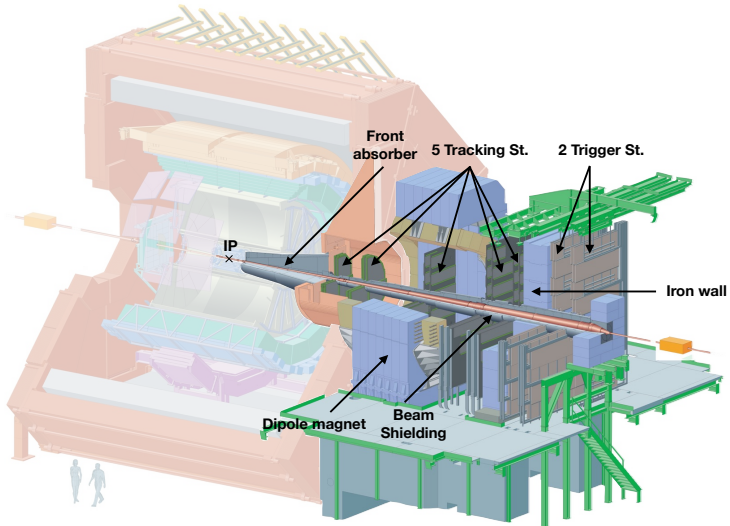Zone 1
16x4 pads of size (5x7.5)
in this area

Zone 2
16x4 pads of size (5x15)
in this area

Zone 3
16x4 pads of size (5x30)
in this area

Detail of border

Ground

62 pads of size (5x30)
in this area
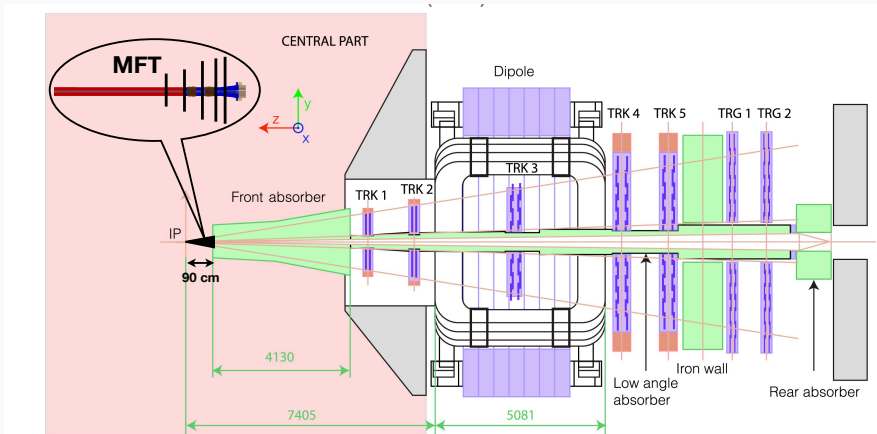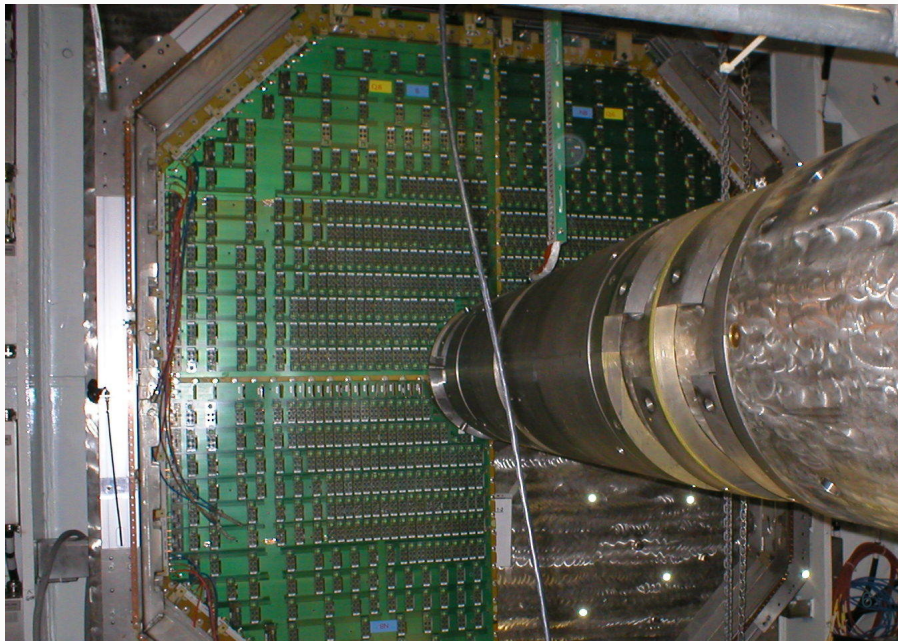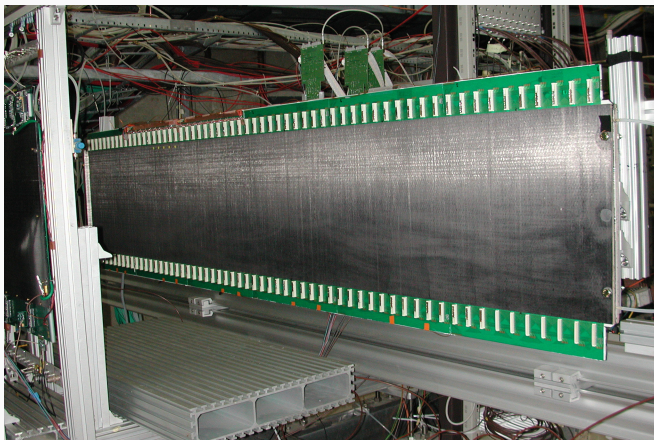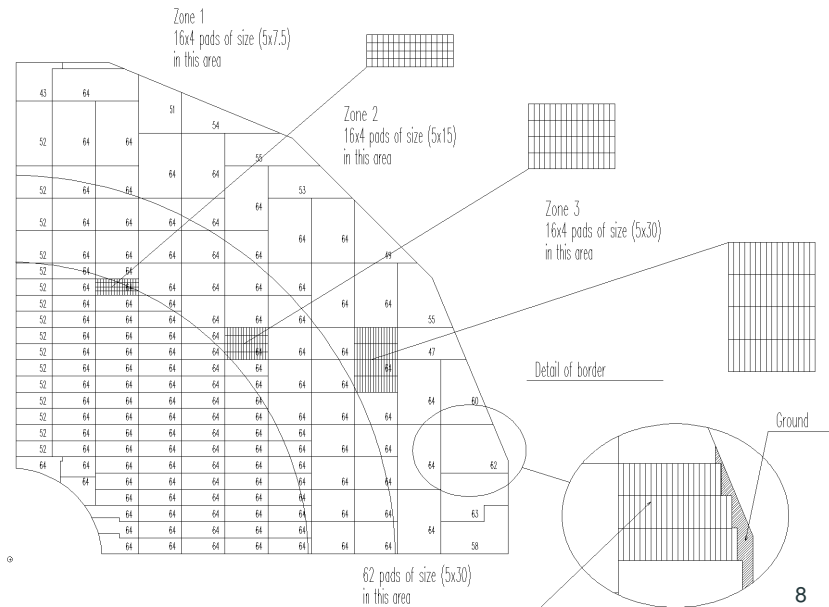
hlt daq offline pic

Outline

Current MUON Software

- Raw Data Decoding
- Raw Data Filtering
- Pre Clustering
- Clustering
- Tracking (MCH)
- Tracking (MID)
- Track Matching MCH-MID

Time Spent

Proof.

Function	% Time
Raw Data Decoding	

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Proof.

Function	% Time
Raw Data Decoding	4

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Time Spent

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Time Spent

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	2

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Need more data for broader run (PbPb, pPb, pp) and errors.

Time Spent

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	2
Pre Clustring	

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Time Spent

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	2
Pre Clustring	10

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Time Spent

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	2
Pre Clustring	10
Clustering	

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Time Spent

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	2
Pre Clustring	10
Clustering	63

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Time Spent

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	2
Pre Clustring	10
Clustering	63
Tracking MCH	

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Time Spent

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	2
Pre Clustring	10
Clustering	63
Tracking MCH	7

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Time Spent

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	2
Pre Clustring	10
Clustering	63
Tracking MCH	7
Tracking MID	

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Time Spent

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	2
Pre Clustring	10
Clustering	63
Tracking MCH	7
Tracking MID	6

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	2
Pre Clustring	10
Clustering	63
Tracking MCH	7
Tracking MID	6
Track matching	

□

Need more data for broader run (PbPb, pPb, pp) and errors.

Time Spent

Proof.

Function	% Time
Raw Data Decoding	4
Raw Data Filtering	2
Pre Clustring	10
Clustering	63
Tracking MCH	7
Tracking MID	6
Track matching	8

□

Need more data for broader run (PbPb, pPb, pp) and errors.

What is a cluster finder

picture of a couple of clusters.

- some stuff

Logical Parts

- Add Virtual pads if necessary
- Find Center of Gravity given maximal pixel
- aaa

$$X_{ocg} = \frac{\sum_{i=1}^{5} X_i Q_i}{Q_i} \tag{1}$$