The CMS logo is displayed in a large, light blue font against a background of abstract, colorful shapes in shades of cyan, yellow, and green. The letters 'C', 'M', and 'S' are spaced out and partially overlaid by these shapes.

# Brief report on recent Barrel data taking

---

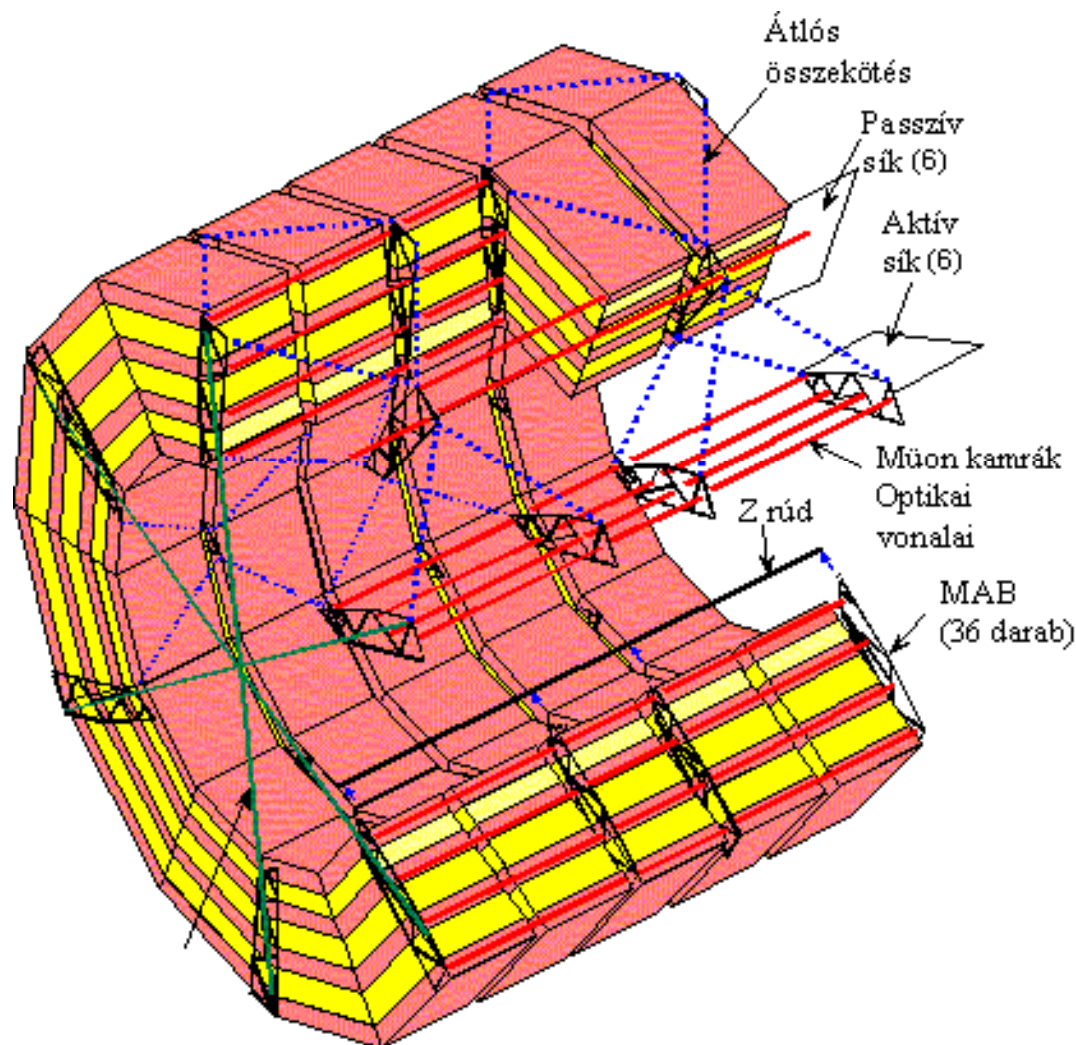
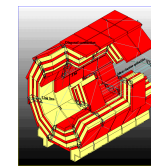
Noémi Béni



This project is supported by Hungarian Research Fund NK67974 & H07-C74281

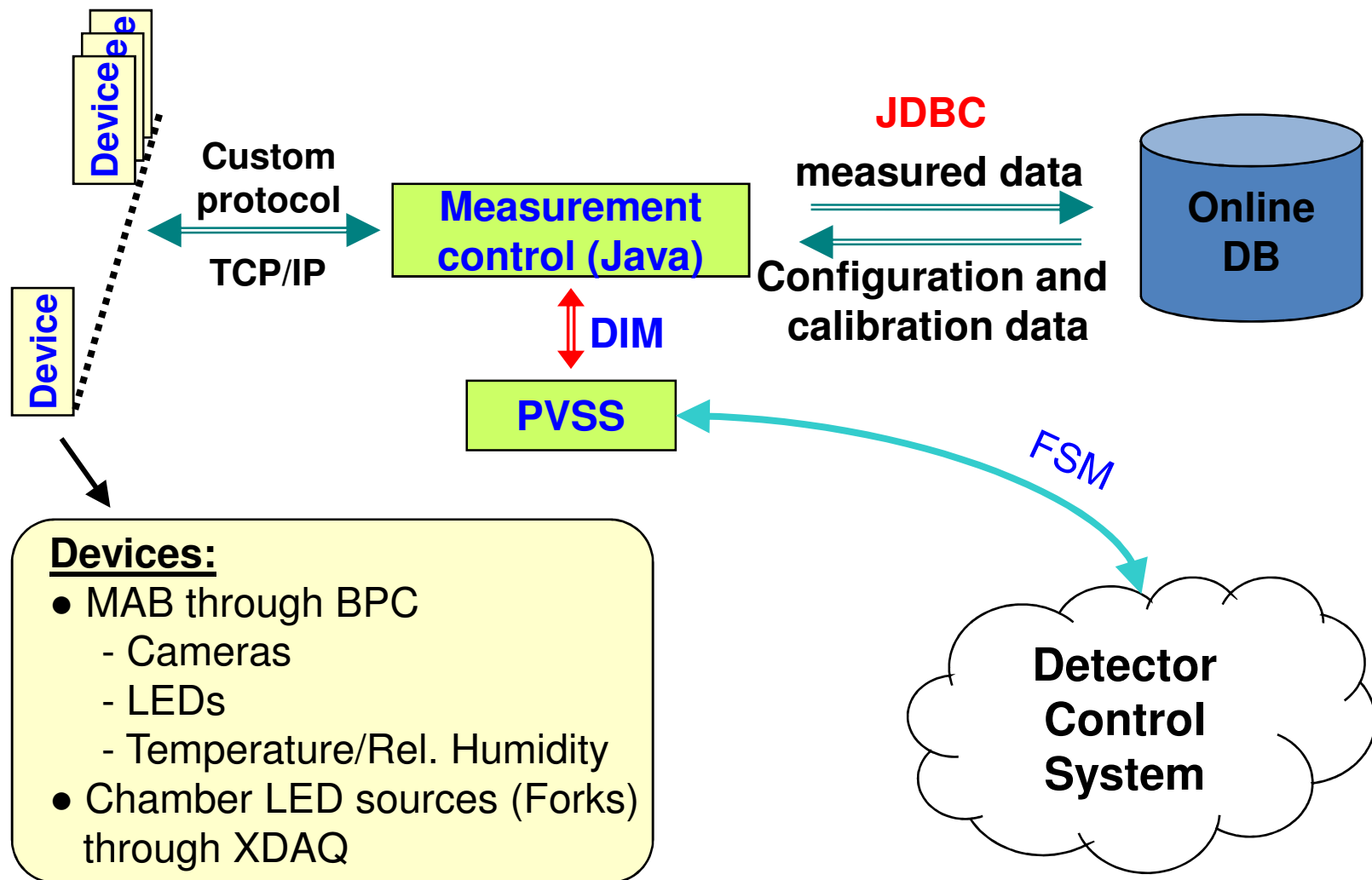
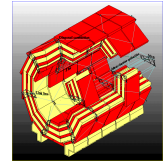


# Muon Barrel Alignment System



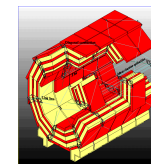


# Barrel DAQ





# Data taking

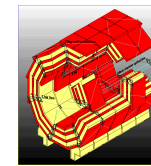


RUN#	Start Time	B field	Comments
160-164 *	2009/07/15 22:25 - 2009/07/16 06:45	0T	
156-159 *	2009/07/10 10:01 - 2009/07/10 14:10	~ 1.5 T	Only Z and Diagonal measurement
152 *	2009/07/08 14:42	0T	version 22
144	2009/07/08 14:42	0T	version 20
143	2009/07/02 16:14	0T	version 19
108	2009/06/22 12:32	0T	version 20
107	2009/06/18 16:57	0T	version 20
106	2009/06/18 08:28	0T	version 19

\* these are good measurements



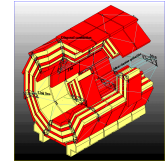
# Problems



- We had problem with the measurement software (we discovered it at run 109 (2009/06/22 22:16))
- There was 2 main problem:
  - CCB server connection error (connection to the minicrates of DT)
  - Database connection problem
- The upgraded measurement software (version 22)
  - centroid data transfer to DB has been put through to a separate thread
  - ccb connection error counters included (included also in PVSS)
  - trigger a second measurement if sigma larger than 0.2 (also in version 20)
- Future steps:
  - Error status including to PVSS
  - DB connection error counter



# New main panel



runParameters: TOP

Thu 16/07/2009 11:07:54

root

**Device** runParameters **State** STOPPED

### Standard run monitor

Progress of measurement		Measurement information	
Total number of measurements	8342	Actual run number	165
Optical links already measured	8342	Actual run started at	2009.07.16. 08:49:14
Optical links not yet measured	0	Last init at run number	1
Running measurements	0	Last init at	2009.07.15. 21:45:41
!!!!Started since last update	0	Program started at	2009.07.15. 21:45:40
Expected remaining time	0 s	Status	STOP
Elapsed time	8321 s	Reply command	command accepted

**Measurement program status** **NEW**

Up Time 48135 s

**This counter must increment continuously!**

### DIM

Actual DIM refresh rate 500 s

**Start DIM** **Stop DIM**

**Set DIM refresh rate** **Check DIM status**

### CCB connection error counters

YB-2	0	
YB-1	0	
YB0	1	
YB+1	0	
YB+2	474	

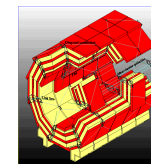
**NEW**

Messages

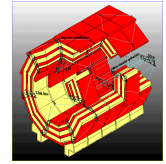
Close



# Hardware failures



- Bad temperature sensor:
  - MAB +3/5 Sensor 4
- Bad cameras:
  - MAB -2/10                   INT/4/R Barrel
  - MAB -2/4                    INT/1/L Diagonal
  - MAB 3/7                     INT/4/L Barrel
  - MAB -2/10                 EXT/1/L Barrel
  - MAB -2/12                 INT/3/R Barrel
- Problematic BoardPC: MAB -2/8
  - OVC error in CAEN power supply → Not useable (no TRH, no camera)
  - After reboot it works fine.



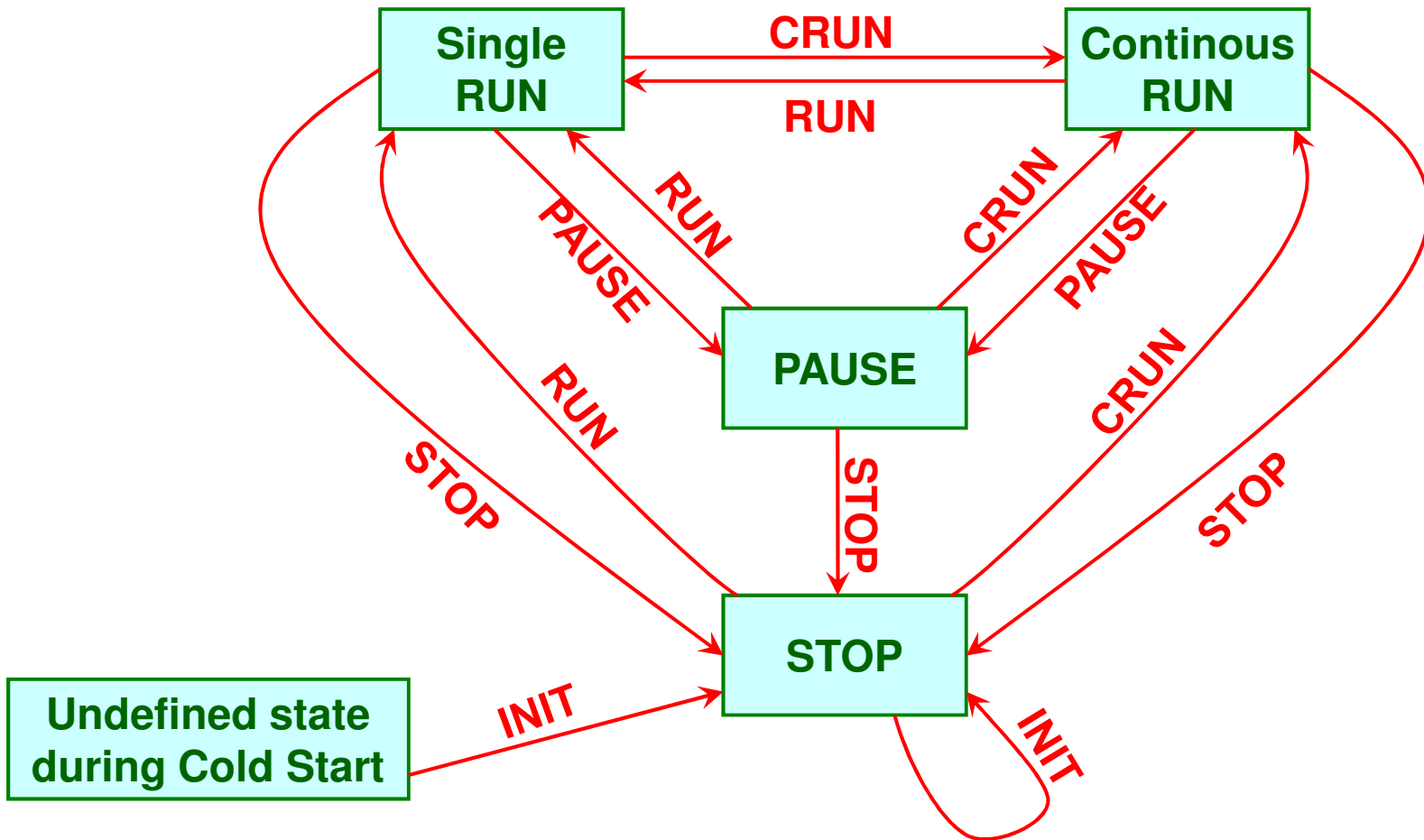
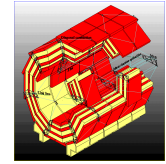
---

# BACKUP SLIDES





# State Diagram of the Barrel Muon Alignment Control





# FSM states of Muon Barrel Alignment

