# Status of the SSD

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Offline week 03/10/06

SSD readout (1/2)

- 1 ECM (End Cap Module) per half ladder -> 144 ECMs
- Each ECM read out by an AD-module in the FEROM (Front-End Read-Out Module) (see next slide)

Ladder

ECM
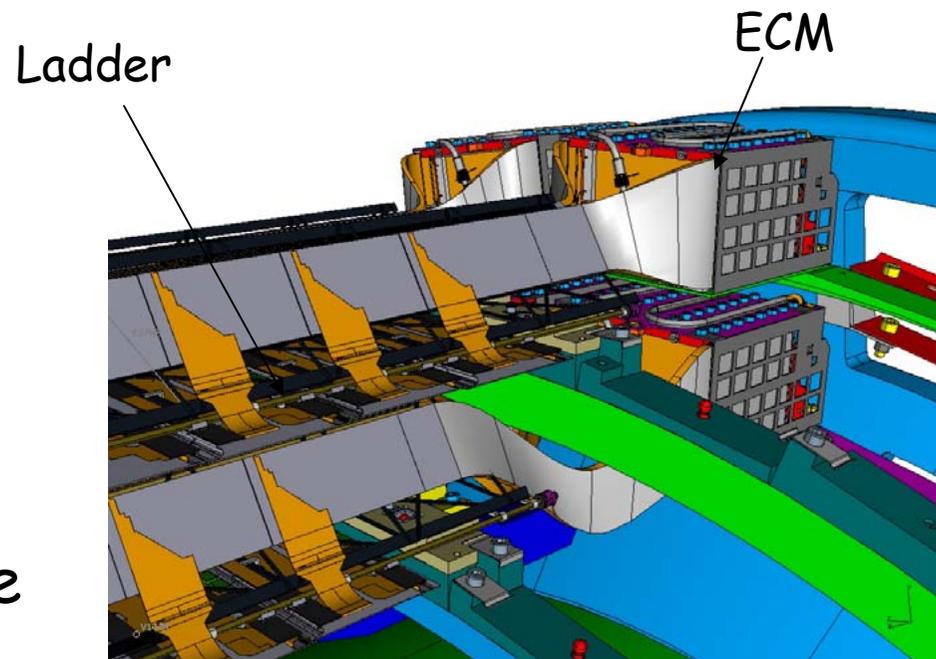
SSD readout (2/2)

- FEROM: 8 VME crates with 2 VME430 backplanes
  = 16 VME430s

- 9 AD-modules per VME430 backplanes + 1 DDL
  = **16 DDLs**

- 12 12-bit ADCs per AD-module

- 1536 channels readout sequentially by ADC

- **3 LDCs** to readout 16 DDLs
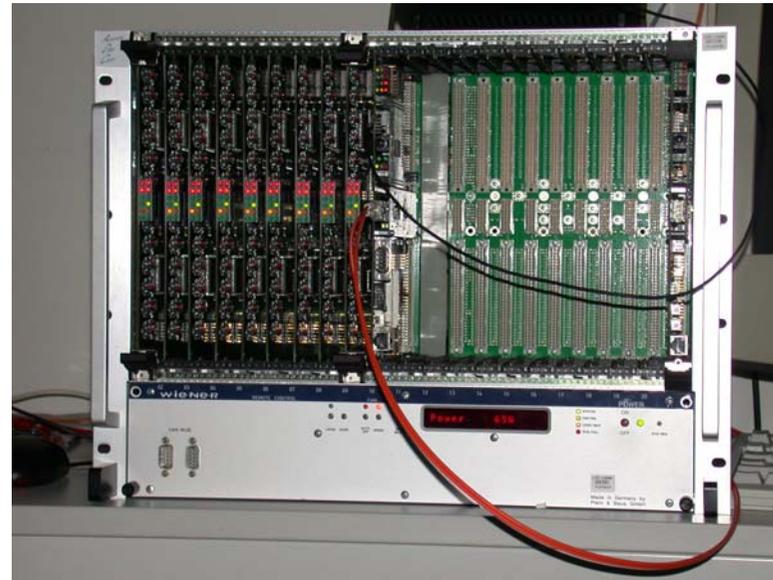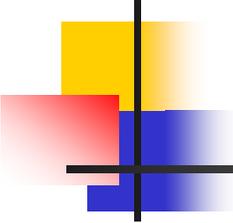
Raw data format (1/2)

- **DDL offset = 512**

- EquipID = (DDL offset + DDL index) set in the LDC

- from the electronics point of view all 16 FEROMs are identical (M.J.Rossewij)

- **12 ADCs x 9 AD-modules = 108 modules per DDL**
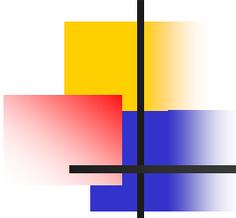
Raw data format (2/2)

D31	D(39...27)	D(26...23)	D(22...12)	D(11...0)
Spare	AD-module number	ADC-number	Strip-number	ADC value

ADC value	12 bit signed ADC data
Strip-number	0...1535
ADC-number	0,1,2,3,4,5,8,9,10,11,12,13
AD-module number	1...9
spare	X
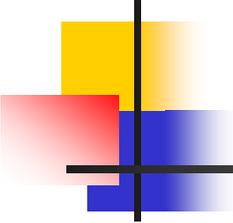
AliITSRawStreamSSD

- AliITSRawStreamSSDv1 (in cvs) successfully used to digitize 2004 beamtest data
- AliITSRawStreamSSDv2 (private) successfully used to analyze cosmic SSD ladder test data last month
- Map in the official streamer has to be confirmed by hardware people (alerted but presently busy with layers assembly) (done by the end of november)
- Layer tests in the next two months will provide an opportunity to test the streamer
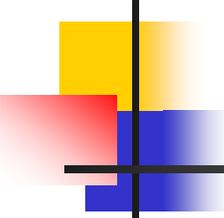
Rawdata reconstruction

- Rawdata access from AliITSClusterFinder and removal of gAlice dependencies will proceed as for SPD and SDD (see E.Crescio) (done by the end of november)

- Raw2digits conversion implemented for beamtest (see E.Crescio) (done by the end of november)
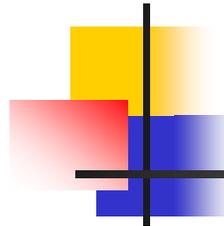
Todo

- Rawdata simulation
- AliEVE Visualization