Detector Control System in 2008

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Overview of the DCS in 2007

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Integrated HW

- CAEN
  - 23 crates
  - 1947 channels
- ISEG
  - 18 modules
  - 272 channels
- WIENER
  - 14 LV PS, 15 VME crates
  - 62+75 channels

- PLC: 3 (134 items)
- ELMB: 26 (529 items)
- NMRmeter
- CAEN channels trip status: 60 (MM/DC)
- DAQ temperatures: 52

Historical data available in ROOT trees on:
/afs/cern.ch/compass/detector/calibrations/dcsdata/2007/

Overview of the DCS in 2007

Uptime

Driver	Purpose	Time on alert (h)	Efficiency (%)	Driver	Purpose	Time on alert (h)	Efficiency (%)
OPC6	CAEN HV	13:33:30	99.7	DIM1	CAEN HV	27:15:15	99.3
OPC7	PLC	10:40:08	99.7	DIM2	CAEN HV	18:49:17	99.5
OPC8	ISEG HV	28:55:50	99.3	DIM3	CAEN HV	19:54:32	99.5
OPC9	ELMB	9:07:56	99.8	DIM4	CAEN HV	22:54:17	99.4
OPC11	WIENER VME	23:09:21	99.4	DIM5	CAEN HV	23:57:27	98.7
OPC19	WIENER LV	14:59:50	99.6	DIM6	CAEN HV	24:05:16	99.4
OPC20	WIENER LV	9:19:25	99.8	DIM11	DAQ temp.	19:07:06	99.5

Total Run time: 4153 h
Time with project stopped: 22.7 h (backups, power cuts)
Drivers on alert due to: server-client communication problems, crashes
Additional problems: loss of communication with HW (older Wiener equipment, CAEN crates for GEM/Silicon and others)

$$Efficiency = \frac{Server\ controlling\ time}{Total\ Run\ time}$$

DCS in 2008

Improvements

- Update of software
   (now PVSS II 3.6 SP2 and JCOP Framework 3.2.0)
- Archiving of monitored values in external DB (Oracle)
- Configuration DB (settings and alert limits)
- Memory of main PC doubled
- Switch Muon/Hadron/DVCS programmes on main UI (ongoing)
- Tests with new WIENER and CAEN OPC Servers (ongoing)

DCS in 2008

New implementations

- Wiener low voltage power supplies (RICH) had firmware upgrade

- New PixelGEM HV and LV channels

- Monitoring of calorimeters HV (?)

- New PLC for cryogenics of Cold Silicons

- Probably remapping of HV/LV channels in the DCS, due to reuse of HV/LV PS

- More requests?