DCS status for the 2004 run

C.Q., DCS group

- DCS computers
- DCS software
- Received requests
- New implementations
- Shift procedures

DCS computers

- Main: pccompass04 running on **Linux** (1 Gby RAM, 40 Gby disk)
- and na58pc014 running on **Windows** (256 Mby RAM)

Two more computers are used as spares:

- pccompass07 mirroring pccompass04 (40 Gby disk + 120 Gby backup and archives disk)
- pccompass03 mirroring na58pc014 (with Kvaser PCI-CAN card installed, and available ports for connection to the PLCs)

DCS Software

- PVSS version 2.12 is still used → no upgrade to PVSS 3.0 (due to its delayed release)
- Framework from the JCOP-IT/CO used
- SLiC+DIM chain used for CAEN HV controls
- SLiC OPC server used for ISEG HV
- SLiC+DIM used for Wiener crates control
- Wiener OPC server used for Wiener LV control
- CANopen OPC server used for monitorings via ELMB
- Schneider OPC server used for gas monitorings via PLCs

Task list
for 2004 Run

Tasks	Responsible	Time estimated	status
Upgrade of CAENET driver on na58pc037 and OS upgrading to RedHat 7.3. Test of SLiC with new driver	I. Manouilov, V. Falaleev	2 weeks	done on December 03
Integrate Lecroy PS for Trigger	I. Manouilov	1 month + 3 weeks	postponed
Integration of Alerts from Micromegas and Drifts using Channel Access	D. Sora	1 month	done on March 04
Control of ISEG PS for STRAWs by SLiC OPC server	D. Sora	4 weeks + 1 week PVSS	PVSS ongoing
Control of ISEG PS for Silicons by SLiC OPC server	D. Sora	4 weeks	PVSS ongoing
Pass information to/from SLiC by group instead of by channel	D. Sora	2 months	postponed
Replacement of Wiener Fantrays control	V. Falaleev	2 weeks	ongoing
Integration of RICH Wiener LV, using OPC server	V. Falaleev	2 weeks	ongoing
Integration of 3 Wiener LV crates for STRAWs	V. Falaleev	1 month	ongoing
Control of temperature and humidity for STRAWS	M. Varanda	4 weeks (hw) + 2 weeks (PVSS)	done on December 03
Cold Silicon temperatures	M. Varanda	2 weeks (PVSS)	3 ELMBs missing, waiting for Munich negotiations
Monitoring of Gas system for MW1, MW2 and RICH Wall, from PLC3	C. Quintans	2 weeks	postponed due to hardware (MW1, RICH Wall)
Monitoring of Gas system for Silicons	M. Varanda	3 weeks	-
Upgrade monitoring of Gas system for MW1	M. Varanda	2 weeks	-
NIM crates control for Trigger	M. Varanda	1 month	ELMBs+PS+boxes installed, waiting for cables to be provided by trigger group
Monitoring of RICH Wall LV and HV	?	?	hardware postponed
Monitoring of Target magnets via ELMB	M. Varanda	1 week	ongoing
Additional temperature sensors for MM	M. Varanda	3 weeks	done on April 03
Additional temperature sensors for DC	M. Varanda	1 week to build boxes + 1 week for installation + 1 week PVSS	ongoing
CAEN HV and LV channels control for GEM11	C. Quintans	2 weeks	ongoing

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Control of 1 additional CAEN crate for Silicon	C. Quintans	1 week	-
Temperature sensors for W45	M. Varanda	3 weeks	ongoing
Monitoring of Gas distribution system status	M. Varanda, C. Quintans	2 weeks	-
Control of CAEN HV modules for Veto Box	C. Quintans	1 week	-
Monitoring of HV status for Veto Box via ELMB	M. Varanda	3 weeks	-
Replace display of DpNames by DpAlias for ELMBs and some other datapoints	C. Quintans	-	done on March 03
Replace Action buttons in ELMB panels, display of units where absent	C. Quintans	2 weeks	done on March 03
Revision of ELMB hardware	M. Varanda, V. Falaleev	1 month	done
Cleaning error/warning messages from log files	C. Quintans + IT/CO	2 weeks	ongoing
Revision of spare DCS hardware	V. Falaleev	until end 2003	done
Document any new or past developments	all	?	-
Install new versions of PVSS and Framework	all	1 month	postponed for after 2004 run

last update:28/04/2004

New implementations

Status of the requests and DCS ongoing work can be checked at:
http://wwwcompass.cern.ch/compass/detector/dcs/run2004.html

Call for requests to the DCS was done in October 2003. But half of the requests were received in April only! And we are still receiving "last minute" requests...

During the shutdown period the list of priorities had to be reformulated, due to delays in program releases and manpower problems.

ISEG HV (I)

by David Sora

A new SLiC was writen to control the ISEG HV modules used in COMPASS:

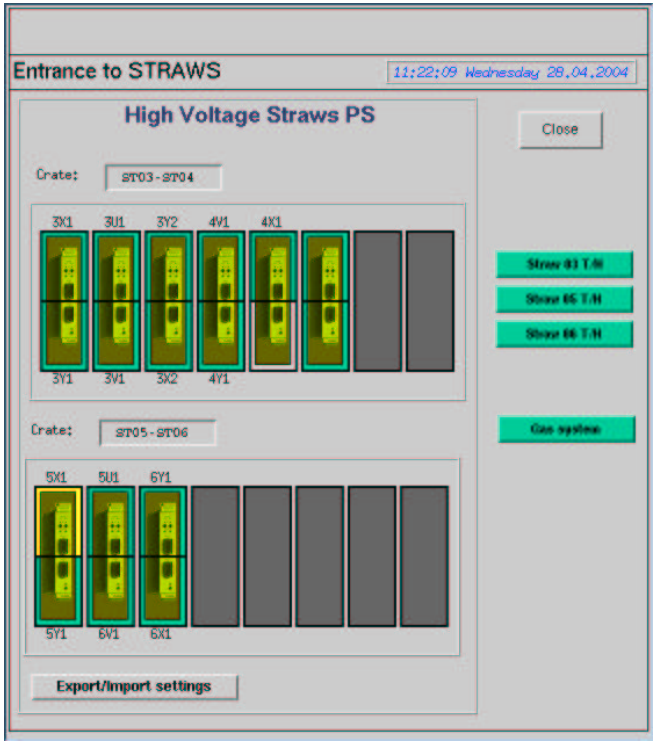
- EHQ 20 025p_204 (16+16 channels), used for Straws detectors
- EHQ 8 006p_605-F (8 channels), used for Silicon detectors

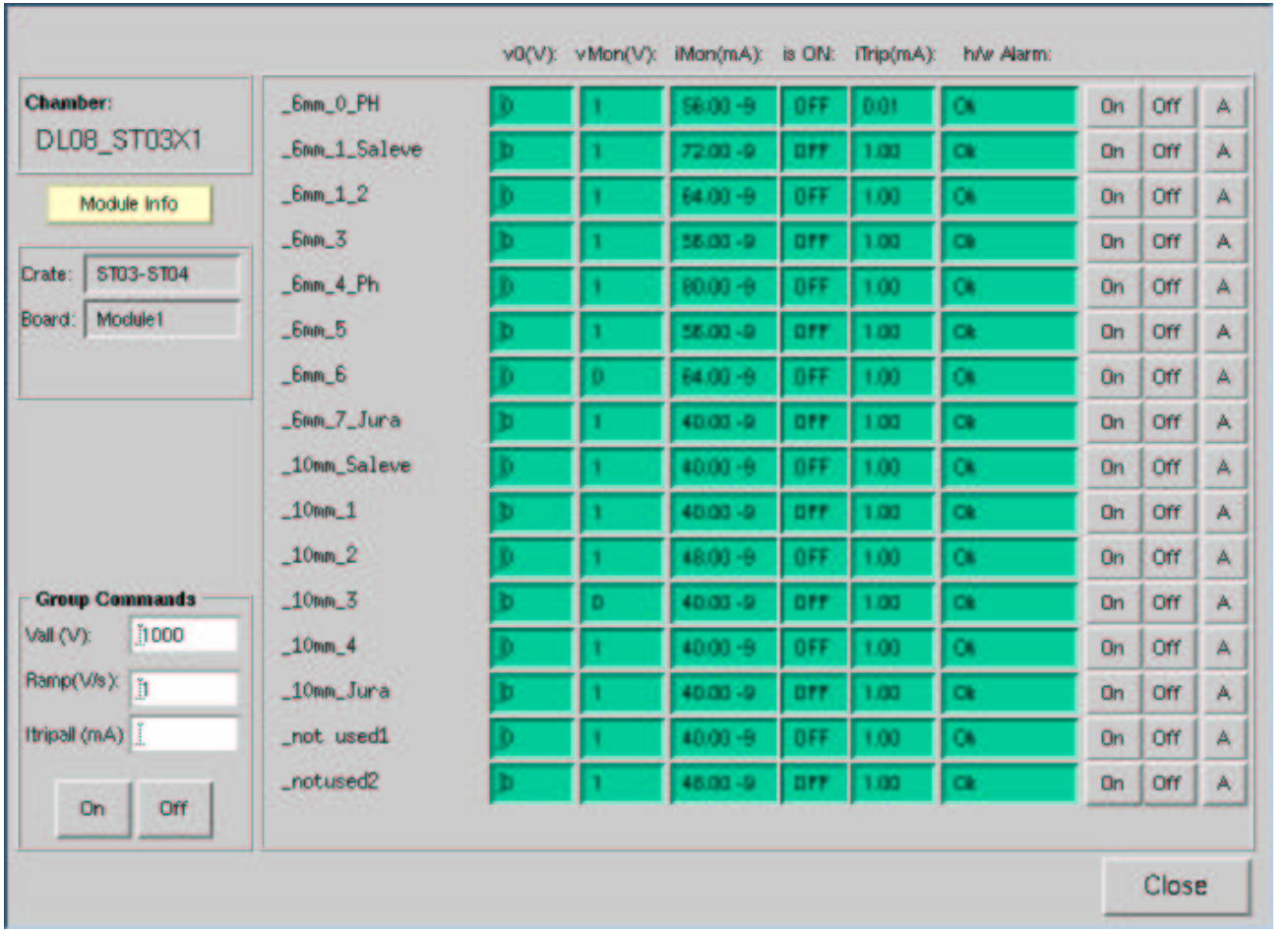
It is compiled as an **OPC server**, running in the DCS windows PC. PVSS connects to it as an OPC client. Controls in PVSS include:

- Set voltage, maximum voltage and trip current, ON/OFF per channel
- Set voltage, ramp speed, trip current, ON/OFF per group
- Monitoring of voltage, current and hardware alarms
- Archiving of currents and voltages

ISEG HV (II)

Example: Straw detectors

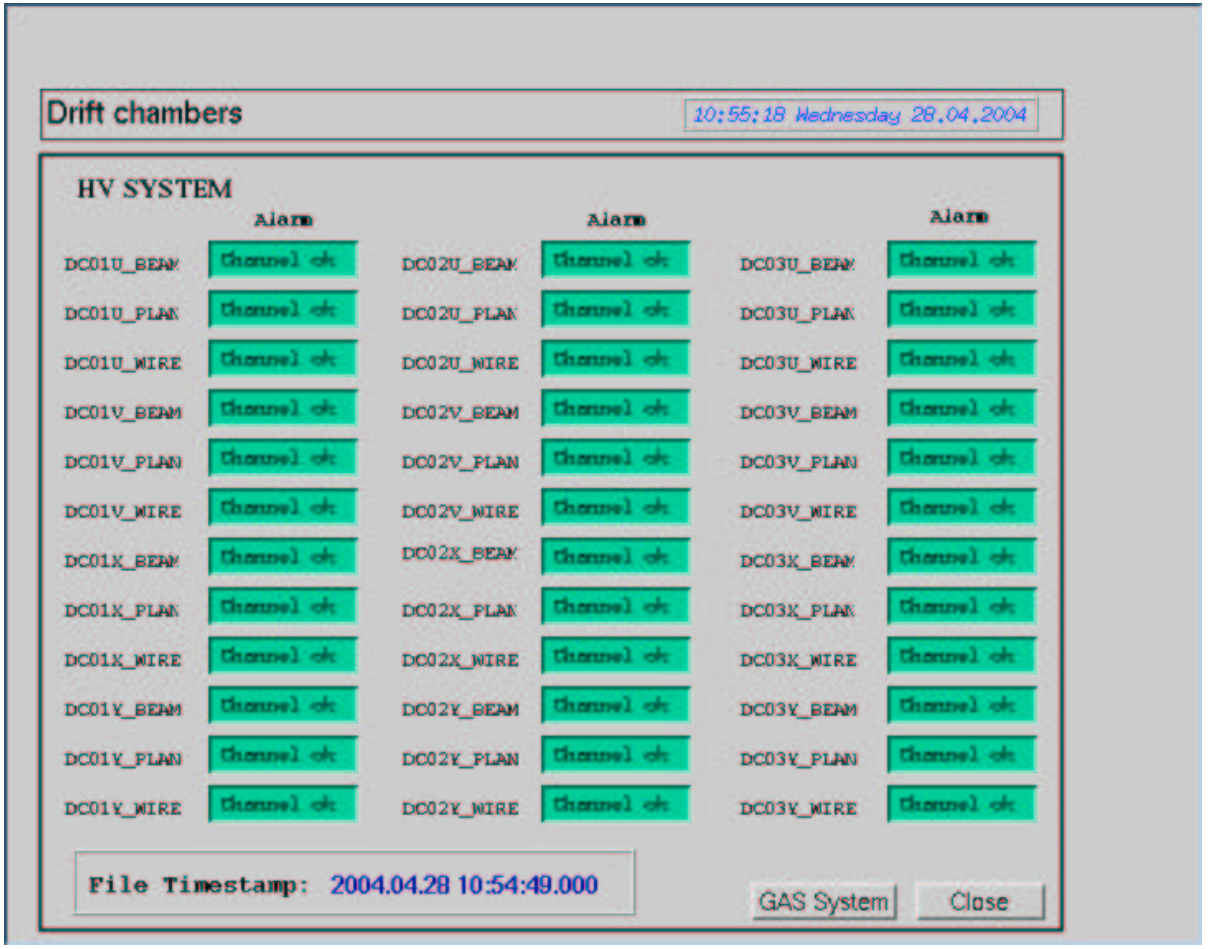




Channel trip alarm for DC and MM

by David Sora

Drift Chambers and MicroMegas slow control sends channel trip information into PVSS. Implementation was done using the EPICS package **Channel Access**.



Wiener crates control

by Valeri Falaleev

SLiC+DIM running in Windows, PVSS connects as a client. This replaces last year monitoring (using SLiC for VME + DIM) – real **control** is now possible.

CANbus cabling was installed, 14 crates in the same CAN branch.

Many parameters can be controlled/monitored:
voltages, currents, ON/OFF, status, temperature,...

Wiener LV control

by Valeri Falaleev

The work to have full control of the Wiener LV power supplies for Straws and RICH detectors is **ongoing**.

Wiener OPC server is used, running in the Windows PC.

2 independent CANbus branches will be installed to start with, one for each detector. These will be merged into one later during the Run period.

ELMBs

Many additional monitorings using ELMBs!

see Maria Varanda's talk.

Shift procedures

- Shift instructions will be updated and made available soon.
- Serious alarms like channel trips produce an alert sound – keep the loud speaker on!
- Other serious alarms send SMS and/or e-mail messages to detectors responsibles (gas systems).
- PVSS - PLC loss of connection produces an acknowledgeable alarm – acknowledge by clicking the "!!!" in the alert panel.
- There will be always at least one DCS responsible available during the Run. In case of need, call the DCS mobile: **164872**.