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DT HV/LV status and plans for MTCC

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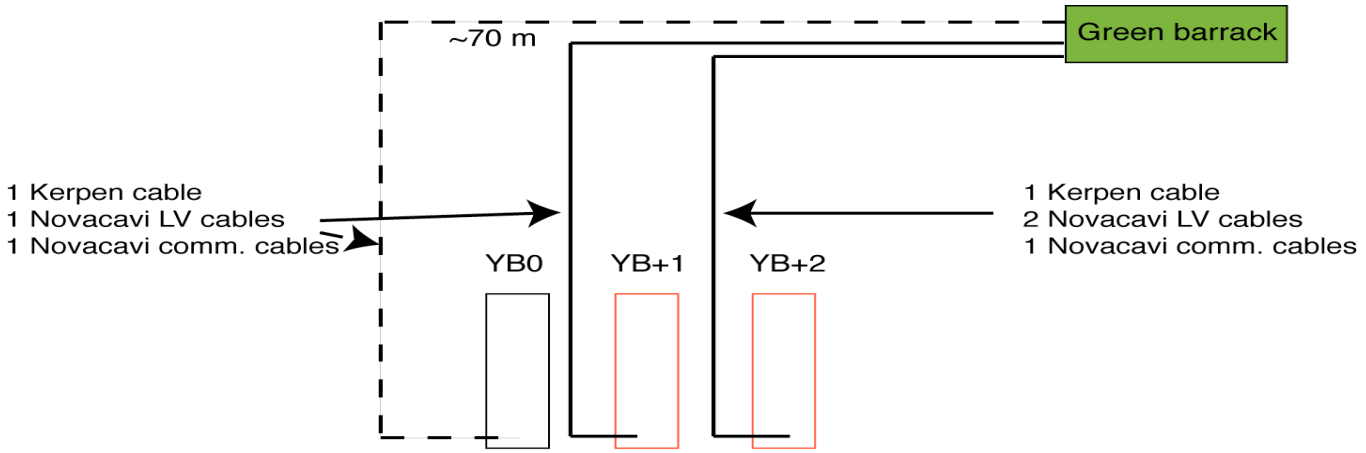
DT Setup for MTCC

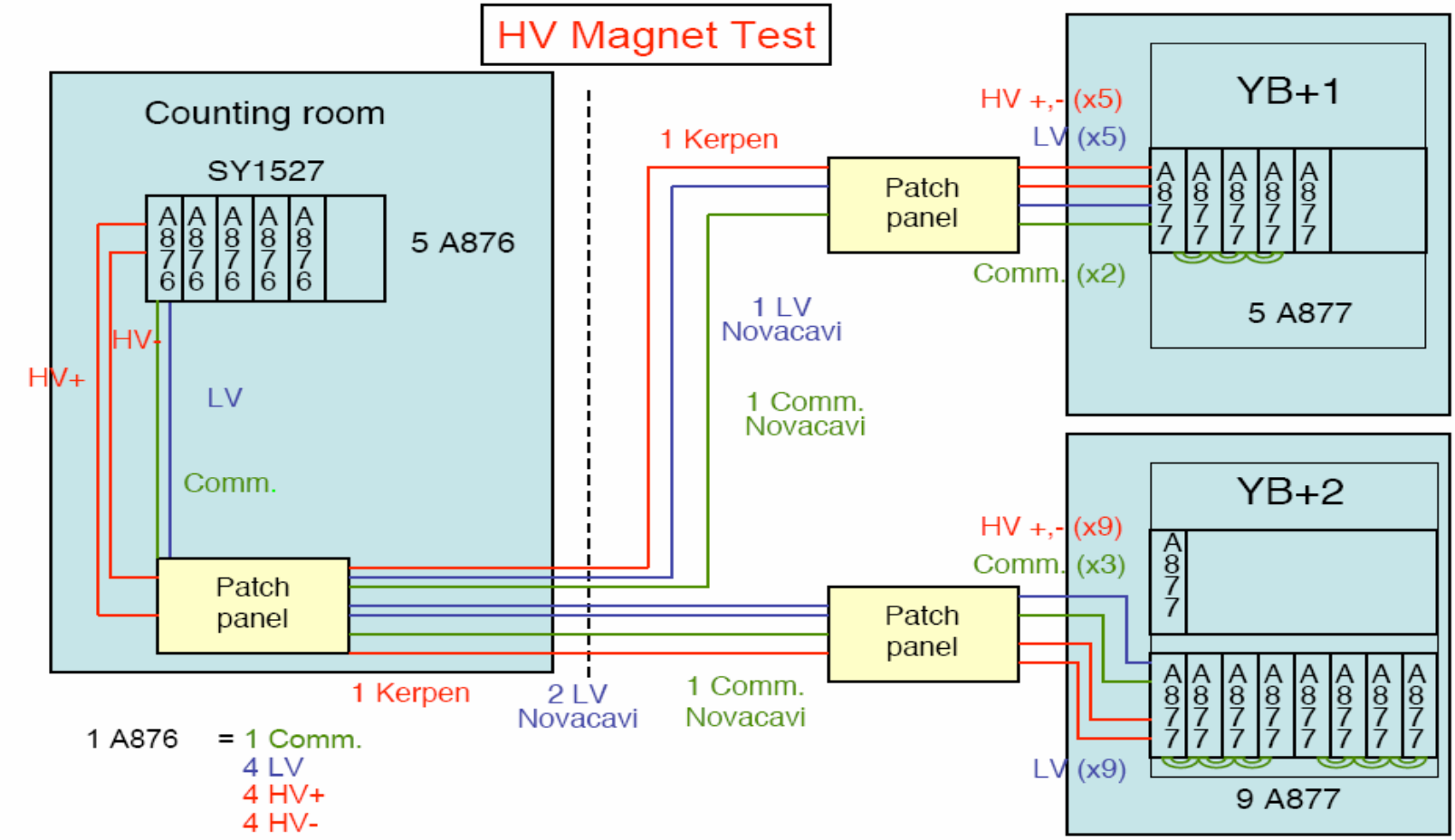


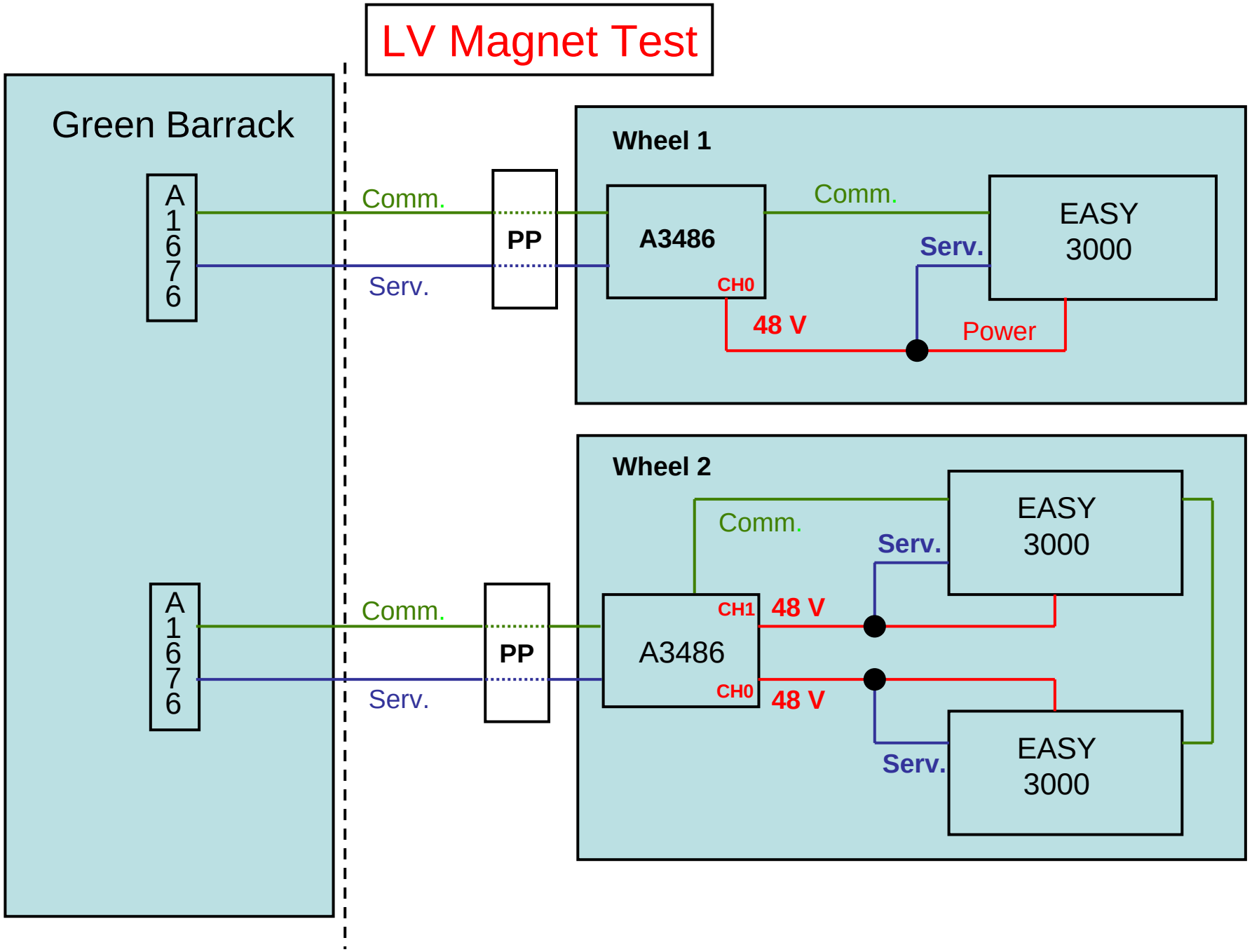
HV

Sectors 10 and 11 in YB+2 (9 DTs): 3 A876, 9 A877
Sector 10 in YB+1 (5 DTs): 2 A876, 5 A877
Sector 10 in YB0 (5 DTs): 2 A876, 5 A877

We will have 3 DT sectors in 2 wheels (YB+2 and YB+1) ~ total of 14 DTs.
HV needs: 1 SY1527, 5 A876 and 14 A877.
LV Needs: 2 A3486, 2 A1676A, 5 A3009, 8 A3050, 2 A3100.

HV Hardware


HV Magnet Test
Counting room
SY1527
A876
A876
A876
A876
A876
5 A876
HV+
HV-
LV
Comm.
Patch panel
1 Kerpen
1 Kerpen
2 LV Novacavi
1 Comm. Novacavi
1 LV Novacavi
1 Comm. Novacavi
Patch panel
Patch panel
HV +,- (x5)
LV (x5)
Comm. (x2)
YB+1
A877
A877
A877
A877
A877
5 A877
HV +,- (x9)
Comm. (x3)
LV (x9)
YB+2
A877
A877
A877
A877
A877
A877
A877
A877
A877
9 A877
1 A876 = 1 Comm.
4 LV
4 HV+
4 HV-


LV Magnet Test
Green Barrack
A1676
Comm.
Serv.
PP
Wheel 1
A3486
CH0
48 V
Comm.
Serv.
EASY 3000
Power
Wheel 2
A1676
Comm.
Serv.
PP
A3486
CH1
48 V
CH0
48 V
Comm.
Serv.
EASY 3000
Serv.
EASY 3000

Hardware status

- HV
  - HV Boards: OK
  - Cables: ready and in position
  - Patch Panels: ready and in racks
- LV
  - LV Boards:
    - Finally received all boards from CAEN !!!
    - 3 A3009 boards on loan from RPC
  - Cables: ready !!
  - Patch Panels: almost ready

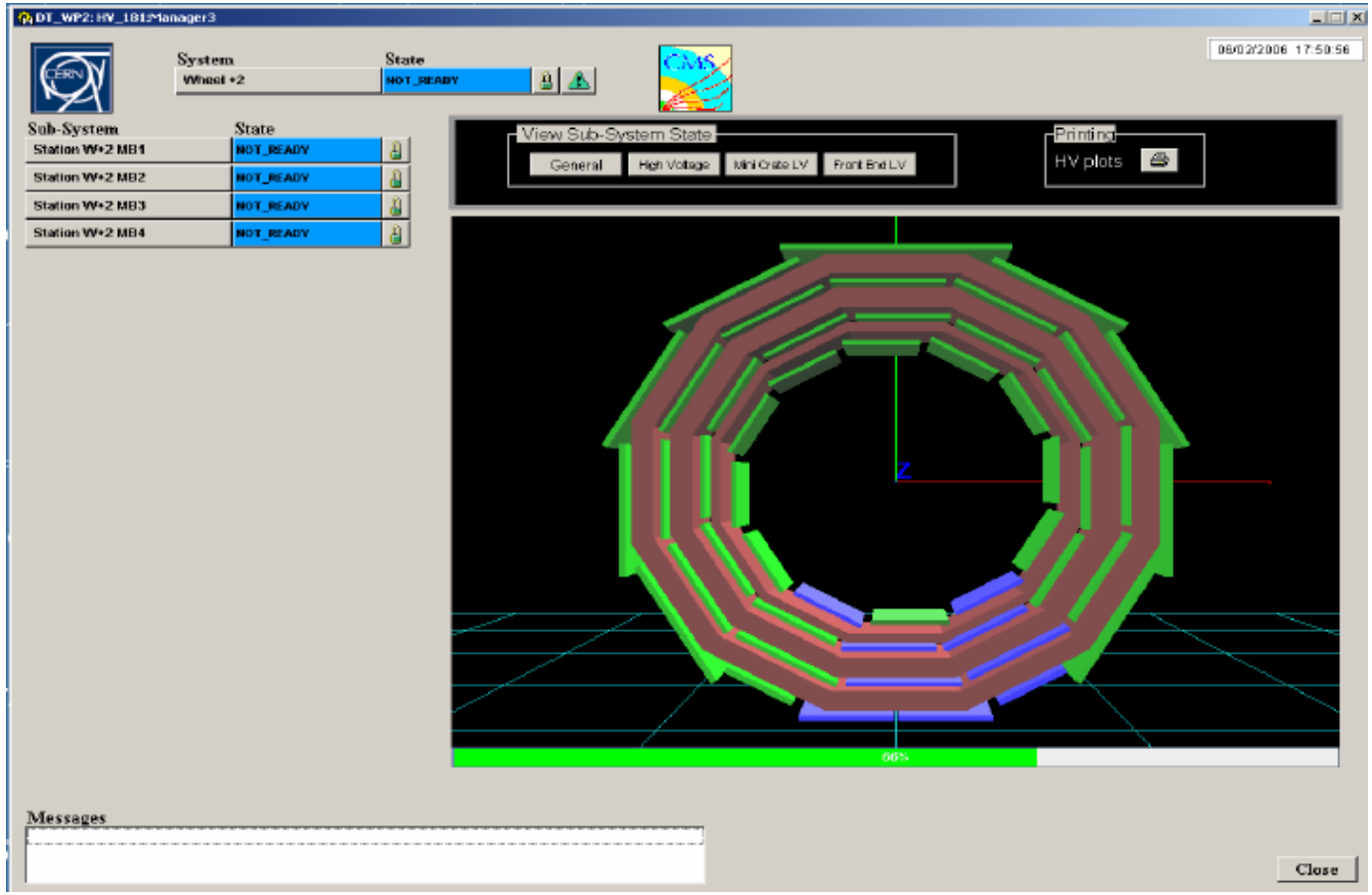
Controls

- HV and LV will be controlled using PVSS
  - prototype PVSS project already running at SX5
  - used to control HV & LV of installed chambers
  - chambers kept under HV since >3 month, LV controlled during sector test: no problems

- Now project running on 1 PC, but for MTCC we will use our 2 rack mounted PCs:
  - 1 for the HV
  - 1 for LV + Supervisor (including connection to MiniCrate state through PSI)

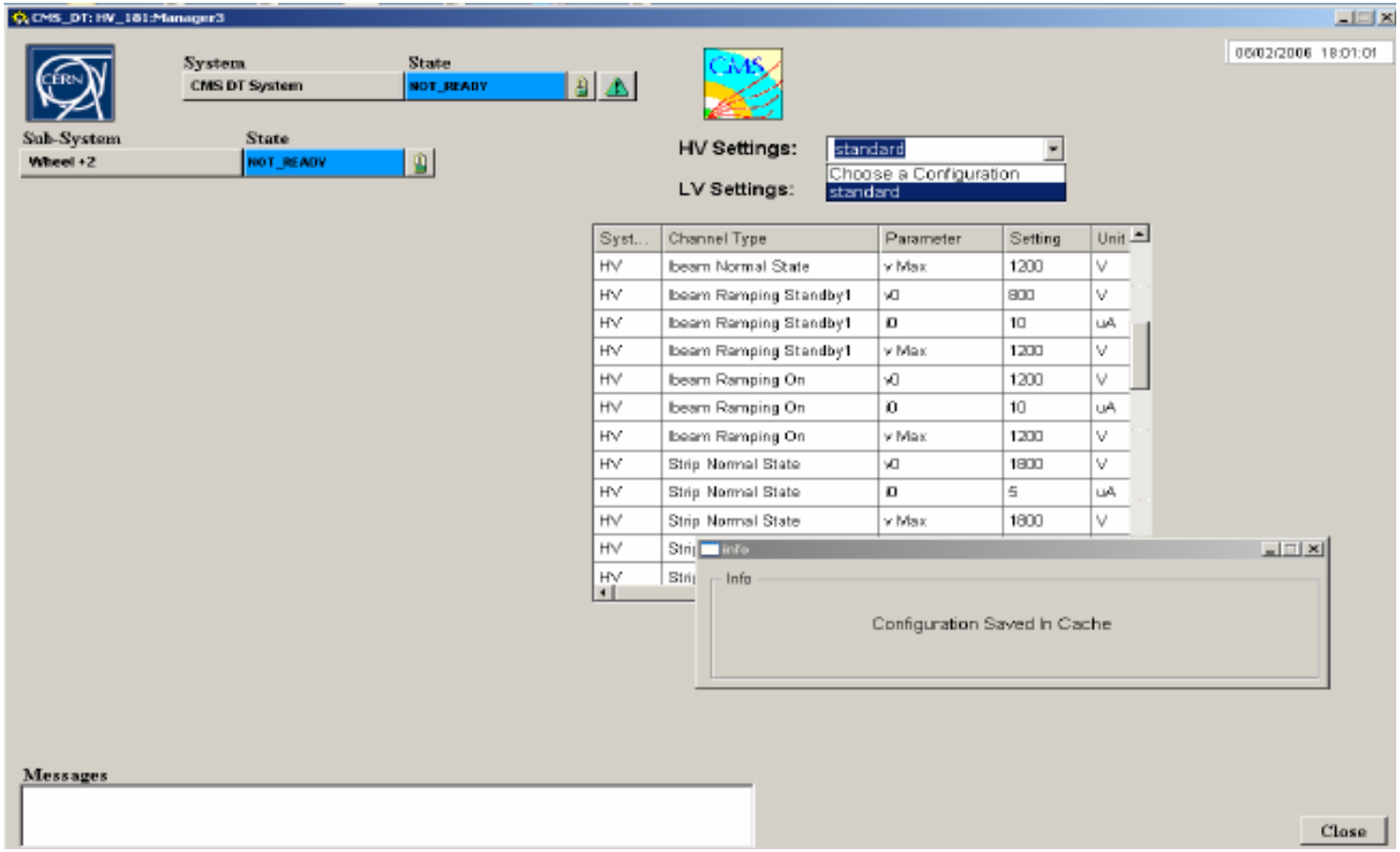
Included functionalities (I)

- Monitoring, settings, FsMs trees,…
- Java Interface (R. Gomez-Reino)



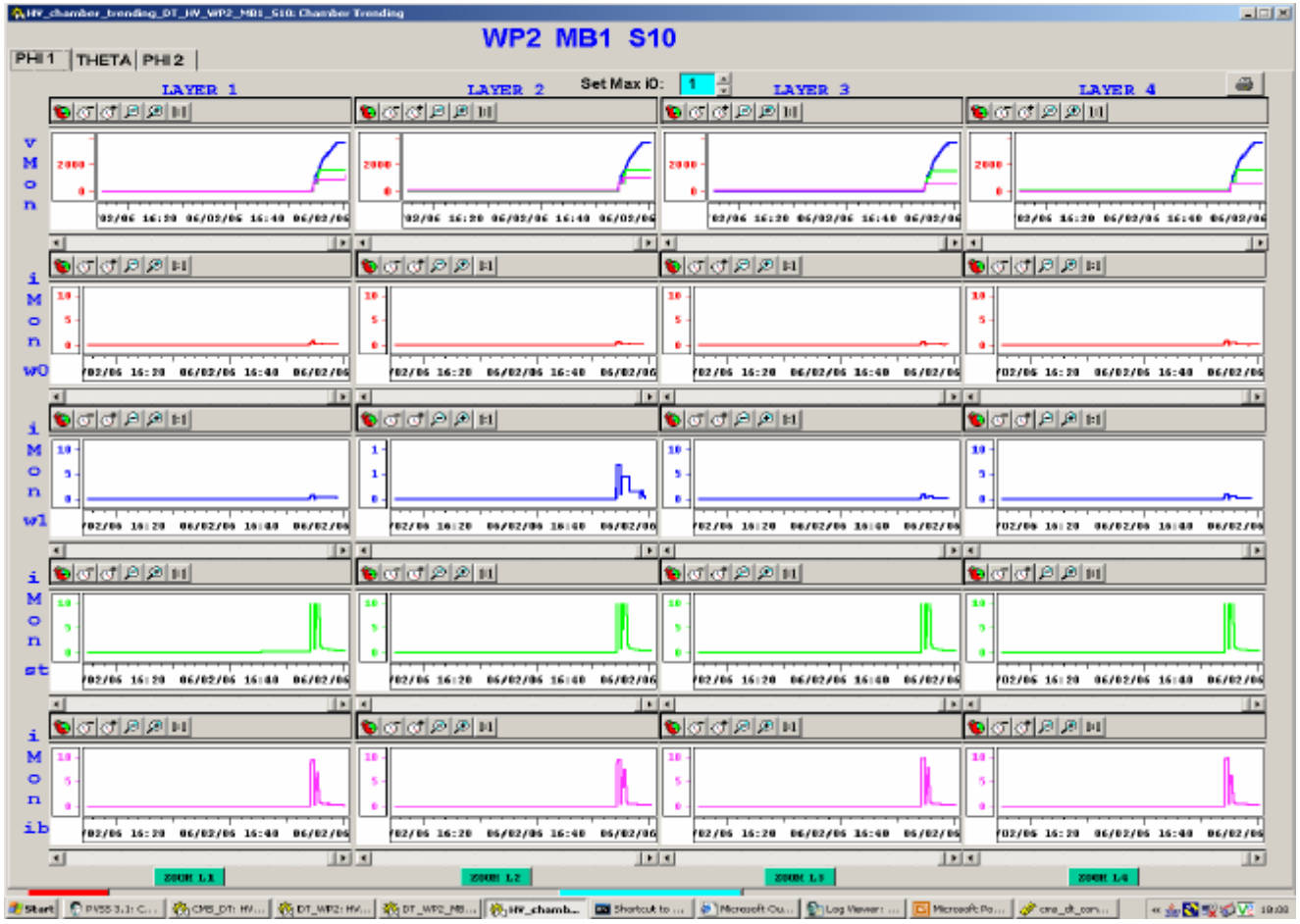
Included functionalities (II)

- Connection to Oracle Configuration Db



Included functionalities (III)

- Connection to Oracle Condition DB



Conclusions

- For the magnet test we will power a total of 14 DTs in sector 10 of wheel YB+1 and sectors 10 and 11 of wheel YB+2.
- HV and LV systems will be the final ones manufactured by CAEN.
- PVSS project with FSM integrated with the central CMS DCS is available for both HV and LV systems. First prototype PVSS project running since a few months at SX5.
- We have finally received all EASY modules. We also have final cables, final patch panels for HV and first prototype LV patch panels.