26.03.03 JO, ZH

TRT DCS for building SR

1. Assumption for scale of the exercise
   - We assume that at the same time we will be testing (i.e. power) either one full wheel or 1/32 slice of 14 wheels (this will be also enough to test substantial part of the barrel)
   – integration with ID foreseen at later stage (end 2004)
2. Environment monitoring (atmospheric pressure, ambient temperature, humidity)
   – standard DCS connection to facilities provided by Central DCS
   – will be implemented progressively when moving to SR1
3. Low voltage power supplies
   – prototype setup, controls over OPC + PVSS II, software 80 % ready:
   a. Bulk power supply WIENER (OPC server ready, PVSSII panel 80% ready
   b. Set of patch panels with regulators (on/off functionality): modification of ELMB 80% ready; PVSSII not started yet
   c. Communication to ID DCS not designed yet
4. High voltage power supplies
   – since there is no baseline yet, we propose to use CAEN PS from pool. Latest system – SY 1527 is equipped with OPC server easy to integrate. Any other (older systems) is difficult to control since are using private CAENET protocol.
5. Temperature on detector
   – we will use standard ELMB setup with sensors on the detector. System close to final for the pit. We are preparing PVSSII panels.
6. Cooling – electronics
   – if necessary and connected to detector will be monitored by standard DCS s/w (cooling stations for ID) and TRT temperature system.
7. Gas system
   a. No control for active gas, probably monitoring of the flow meters (standard gas group s/w)
   b. Gas Gain Stabilization System - prototype as build for the pit. H/W already purchased (80%); S/W operational at low level; OPC connectivity ready at 60% level; PVSSII starting the design.
8. High level system
   – integration of TRT subsystems, automation of tasks, Finite State Machines will be done progressively starting this year and being a test field for final system