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The Control System for the cryogenics in the LHC tunnel

Wednesday 24 September 2008 14:00 (25 minutes)

The cryogenics process automation of each of the 8 LHC sectors is based on 2 Siemens-S7® Programmable Logic Controllers (PLC), each running 250 closed control loops, 300-500 alarms and interlocks, and the process phase sequencer.

Distributed along the LHC circumference, 15 000 cryogenic sensors and actuators are accessed through industrial field networks (Profibus® and WorldFIP®), running through optical fibres, copper cables and signal repeaters.

This presentation describes the main hardware and software components of the control system for the LHC tunnel cryogenics, together with their human interfaces and tools for operation and diagnosis.

Proposed for workshop session (see call for abstracts): 1- Operation 2- Maintenance 3 - Safety 4 - Control

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