

INDUSTRIAL CONTROLS FOR THE ATLAS SUPERCONDUCTING MAGNET B0 TEST SETUP

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The Atlas B0 superconducting magnet is a test-model for the barrel toroid coils of the LHC experiment Atlas. To verify the manufacturing concepts of the coil, it will be subject to a series of electric, magnetic and thermal tests at CERN starting end 1999. The controls of this test bed will integrate industrial process controls (PLCs with fieldbus) and laboratory-type data-acquisition systems based on Labview developed by different participating institutes. They must provide secure process controls together with easily adaptable test scenarios and an accessible data repository. The paper describes the system architecture and the solution chosen for integrating the different components.