APPLYING INDUSTRIAL SOLUTIONS TO THE CONTROLS OF EXPERIMENTS

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An increasing number of industrial systems are now using PLCs (ProgramableLogical Controller) and SCADA (Supervisory And Data Acquisition) systemsfor process control. These technologies were applied in existing detectorssuch as the L3 muon slow control and NA48 experiment. More recentlycontrol system of the B1GCS (Gas Control System for the Micro Strip GasChamber), ATLAS GAS TRT (Transition Radiation Tracker) and ALICE HMPID(High-Momentum Particle IDentification) liquid distribution prototype usedoff the shelf technolgies: PLC, PROFIBUS fieldbus, OPC (OLE for ProcessControl) and SCADA systems. Although these control systems include only asmall number of devices and are designed for a specific application, theycover nevertheless all layers of a complete system. In this paper asynthesis will be made of this experience and conclusions drawn as to thepossible use of these technologies for experimental physic detectorcontrols in the context of the LHC Joint COntrol Projet (JCOP).