

A VERSATILE CONTROL SYSTEM FOR THE LEIR/AD ELECTRON COOLER

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With the end of antiproton physics at LEAR in 1996, the electron cooling device was modified in order that it could be used for experiments with lead ions in 1997 in LEIR and then for installation in the AD machine the following year. As a consequence, as well as the mechanical modifications to the cooler, the control system also needed to be upgraded and it was decided to build a system that could run either from a PC or from a Workstation as used in the accelerator control rooms. This turned out to be the most efficient solution as no support was given for the maintenance of the old control system during the experiments with lead ions. The PC system was realised during the shutdown before the machine experiments started, leaving time during the rest of 1997 to build the VME interface for installation in the AD. In this paper the hardware and software implementations of this new control system are described and some ideas for the near future are also presented.