

Abstract Submitted
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Implementation of Environmental Monitors for NIFFTE and SeaQuest Experiments¹ DONALD ISENHOWER, Abilene Christian University, NIFFTE COLLABORATION, SEAQUEST COLLABORATION — The implementation of environmental monitors for the LANSCE NIFFTE and Fermilab SeaQuest experiments will be discussed. The emphasis will be on the use of a single, low cost, general purpose instrument, as opposed to a system of specialized, multiple subsystems. The implementation uses a KeithleyTM 2701 Multimeter/Data Acquisition System with a KeithleyTM 7710 solid state multiplexer. The system will be set up to work with MIDAS or CODA as the DAQ interface. It can have multiple types of sensors hooked up, as each channel is independent and can measure any parameter ordinarily associated with a DMM. The inputs can be a mixed composition of thermocouples, thermistors, LVDTs, pressure, humidity, and other sensors. The KeithleyTM 2701 is easily controlled via the “Standard Commands for Programmable Instrumentation” (SCPI) Ethernet interface in a Linux environment. The different ways in which such a system can be configured as part of the LANSCE NIFFTE and Fermilab SeaQuest slow control systems will be demonstrated.

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