

HIGH VOLTAGE CONTROL AND MONITORING OF Ge AND BGO DETECTORS AND LIQUID NITROGEN FILLING CONTROL AND MONITORING OF Ge DETECTORS ASSOCIATED WITH THE RMS

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The Liquid Nitrogen (LN) Control and Monitoring System for RMS Ge detectors, described in 1996,¹ has been revised and High Voltage (HV) control and monitoring of Ge and BGO detectors has been incorporated into the system. The graphical user interface, Inmon, has been replaced with a more simple and robust text based user interface, hvln, that can be executed from any terminal that has access to rms1. A number of problems arose when the previous user interface allowed the user to inadvertently or unwittingly set the LN filling schedule to some impossible or absurd state. Therefore, a special effort has been made to reduce to a minimum the likelihood that this sort of thing will continue to happen in the future.

Protective features include:

- Setting of LN fill-times to the past is prohibited.
- Setting of LN fill-times more than 24 hrs. in advance is prohibited.
- Setting HV on warm Ge detectors is prohibited.
- All LN fill or HV changes require user verification.

The system also provides interactive commands that:

- Process command files for standard setups, etc.,
- Display and log status of the HV and LN control systems,
- Display messages reported by the VME processor software,
- Control HV on Ge detectors supported by LN filling system,
- Control HV on BGO segments associated with Ge detectors,
- Specify when detectors are to be filled,
- Initiate cool-down sequences for specified detectors,
- Enable/disable detector filling or manifold operation,
- Save all VME data on a file and
- Load data from a file into the VME processor.

¹ H. D. Sanders et al., *Phys. Div. Prog. Rep. for Period Ending Sept. 30, 1996, ORNL-6916*, p. 1-63.