

**A New Remote Control and Monitoring System for the ISIS Ion Source on the 665 kV DC Accelerating Platform,** M. PERKINS, A.P. LETCHFORD,

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- The control system is based on commercially available equipment and provides a high integrity datalink to the ISIS ion source. The system communicates with the H<sup>-</sup> source situated at the 665 kV high voltage potential of the DC accelerating column and replaces a 50 Hz 160 bit serial link with a high speed, adaptable, microprocessor based and PC, controlled system. The prototype installation highlighted the problems associated with such equipment when used in electrically hostile environments. These have been surmounted with careful consideration to noise immunity and power supply integrity. Software has been written that allows communication between the commercial software and the ISIS (VAX based) control system software. This provides full monitoring and control of the ion source from the ISIS main control room.