

**SOFTWARE DESIGN OF THE SCHONLAND 6MV EN-TANDEM
ACCELERATOR CONTROL SYSTEM,**

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Currently the 6MV EN-Tandem accelerator at the Schonland Research Centre for Nuclear Sciences is being upgraded for computer control. A distributed, networked based control architecture has been implemented and successfully installed to control two sections of the accelerator. A graphical user interface (GUI) is being designed to be both didactic and easy to use. The entire control system software has been written to use OS/2 and exploits the multi-threaded and real-time nature of the operating system. Source code has been written in C and C++. A client-server type architecture is used to control electronic components to provide prioritising of control instructions and monitoring events. A relational database is used to store all system and control variables to facilitate upgrading needs. The modular nature of the control system allows minimal down time when installing new sections for computer control. We present here a status report and first results of the accelerator control system software.