

Computer Control Operation and Future Upgrade Plan in STAR Accelerator Facility at ANSTO

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STAR is a 2MV tandetron accelerator that can perform both IBA and AMS analyses. It has three ion sources which include two duoplasmatron sources for hydrogen and helium, and a solid target sputter source used primarily for ionising carbon samples for AMS. The STAR accelerator currently has 3 beamlines, a multi-elemental surface analysis beamline (SIBA1), a high-resolution depth profiling and irradiation beamline (SIBA2), and a 14C beamline (AMS).

This presentation will firstly introduce the current computer control system, and look at its history and developments. These include partial modification of the original C14-OS package in Windows NT, and upgrade from Windows NT to Windows XP.

Due to the age of the system, and the base hardware, operation and maintenance of the control system has become problematic. Consideration for a future upgrade of the STAR computer control system are in there early stage. This presentation will also explore two possible upgrading and replacement options.

Primary author(s) : Dr WANG, JIAN (CAS ANSTO); Mr BUTTON, David (CAS ANSTO); Mr PANERAS, Nikolas (CAS ANSTO); Mr REES, Matthew (CAS ANSTO); Mr DOWNES, Andrew (CAS ANSTO)

Presenter(s) : Dr WANG, JIAN (CAS ANSTO)

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