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C1Po1F-02: Fermilab SSR1 and HB650 synoptic and EPICS Remote cryogenic control system

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Abstract- The 325MHz Single Spoke Resonator 1 (SSR1) twelve cavities Cryomodule (CM) is 5.3-meter length and it has 288 liter liquid helium @ 2K mode, The High Beta 650 MHz (HB650) six elliptical cavity cryomodules is 9.92 meter and it has 530 liter liquid helium @2K mode. The SSR1 and HB650 CM had been tested at Fermilab PIP2 IT in the Cryomodule Test Facility (CMTF). Their synoptic/EPICS cryogenic control system includes the Siemens Process Control System S7-400, Automation Direct DL205 PLC and remote synoptic/EPICS Phoebus GUI. This paper presents a method which has been successfully used by Fermilab PIP2 IT cryogenic remote on-line, real-time control systems.

Index: PIP-II SSR1 and HB650 CM, cryogenic control system, synoptic/EPICS IOC OPC UA

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