

**PRESENT STATUS OF THE DISTRIBUTED COMPUTER  
CONTROL SYSTEM FOR THE 1.8GEV SYNCHROTRON  
RADIATION SOURCE TSRF AT TOHOKU UNIVERSITY**

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The control system has been designed for the 1.8GeV synchrotron radiation source at Tohoku-University Synchrotron Radiation Facility (TSRF), Sendai-city, Japan. TSRF is a third-generation synchrotron radiation facility that is currently proposed at Tohoku University, Sendai, Japan. The control system comprises three physical layers: UNIX workstations, FDDI (Fiber Distributed Data Interface) high-speed network, and VME field bus. At the upper layer, UNIX workstations provide process control and user interface. The upper layer has an on-line database for retrieval of operational data and control information. The FDDI is a 100-Mbps, token-passing, dual-ring LAN using a fiber-optic link suitable for exchanging control data reliably. On the bottom layer, there are VME crates with high performance CPUs that are interconnected to the magnets, RF, Vacuum, beam-position monitors, wigglers/undulators, beamlines and related components of the storage ring for local process control. The design of the TSRF control system is discussed.