

## **ACCESSING REMOTE EQUIPMENT AS DISTRIBUTED REMOTE OBJECTS THROUGH THE COMPUTER NETWORK USING JAVA REMOTE METHOD INVOCATION**

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High-energy accelerator control systems are usually comprised of distributed computers and equipment such as analogue-digital converters, digital input/output ports and VME CPUs. We have replaced the existing distributed system, which was coded mainly in PASCAL on VAX/VMS, with the software system in Java and with VME modules/SUN-UNIX workstations for hardware. In particular, software interfaces for the hardware which was implemented in various CAMAC modules for cost and historical reasons have been replaced with Java Remote Method Invocation (RMI) running under the distributed VME CPU modules on the network. By taking advantage of Java RMI's capability, many remote accesses are carried out easily without paying a lot of efforts for remote communication as if the remote equipment was residing on the local machine. Experience with Java Remote Method Invocation for accessing remote equipment/devices as the distributed remote objects is discussed.