

NETWORK BASED EPICS DRIVERS FOR PLC'S AND MEASUREMENT STATIONS

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The control system of JHF (Japan Hadron Facility) is being designed employing EPICS. The overall discussion of the system is provided elsewhere [1]. In the system it is planned to install PLC's and measurement stations for accelerator equipment and beam instrumentation, which are connected with Ethernet/IP network. The reason is that modern controllers can be managed better over TCP/IP network even for software downloading and debugging, and that the IP network and Ethernet are de facto standards. In order to integrate those controllers into EPICS environment device support software is being developed. Yokogawa's PLC's are considered to be used since many installations are already running at the site [2] although they are not under EPICS. EPICS software for them is relatively straight forward. For the measurement stations WE7000 systems from Yokogawa are being evaluated, which are designed carefully against accelerator noises, and are cost efficient. Its network driver software is under development on Unix at first, and later it will be adapted to EPICS environment.

- [1] J. Chiba et al., A Control System of the JHF Accelerator Complex, contribution to this conference. [2] K. Furukawa et al., Microwave Control and Measurement System at the KEKB Linac, ICALEPCS97.