

DATA ACQUISITION OF BEAM-POSITION MONITORS FOR THE KEKB INJECTOR-LINAC

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About 90 strip-line-type beam-position monitors (BPM) have been installed and used for the beam controls of the KEBB e-/e+ injector-linac since December of 1997. A data-acquisition system for the BPMs has been developed. It comprises a few Unix workstations, which are part of the linac control system, and eighteen dedicated VME computers with the OS-9 operating system. The BPM waveforms detected by a digital oscilloscope are analyzed by a VME computer, then the calculated beam parameters (current, x-position, y-position) are transferred to Unix workstations using the TCP/IP protocol. The workstations are used as the data servers for client applications. The present data-acquisition system enables a real-time indication of beam parameters over the whole linac at the same time. The detail of the system and the experiences over the recent years are given in this article.