30TH INTERNATIONAL COSMIC RAY CONFERENCE

Data acquisition system of air fluorescence detectors for the Telescope Array experiment

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Abstract: The construction of the fluorescence detectors (FDs) of the Telescope Array (TA) experiment will be completed in June 2007, and the first observation with the full configuration is planned in summer in this year. In this paper, we describe the development of the data acquisition (DAQ) system for the TA FD observations. The DAQ system of each TA FD station is comprised of 16 CPUs: 13 for controls of the FD front-end electronics and 1 for data storage and 1 for environment monitoring, and 1 for the central control of the whole system. We employ the Network Shared Memory system (NSM) for communication of the CPUs. We will present the detail of the system and the performance in the test observations and the first science run.