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Software design for the control system for "Small-Size Telescopes with single-mirror" of the Cherenkov Telescope Array

Tuesday 4 August 2015 16:00 (1 hour)

The Small-Size Telescopes with single-mirror (SST-1M) is 4 m Davies-Cotton telescope and is among the proposed designs for the Cherenkov Telescope Array (CTA). It is conceived to provide the high-energy ($>$ few TeV) coverage. The SST-1M comprises proven technology for the telescope structure and innovative electronics and photosensors for the camera. Its design is meant to be simple, low-budget and easy-to-build industrially.

Each device of an SST-1M telescope is made visible to CTA through a dedicated OPC-UA server. The software is being developed in collaboration with the CTA Medium-Size Telescopes to ensure compatibility and uniformity of the array control. Early operations of the SST-1M prototype will be performed with a subset of the CTA central array control system based on the Alma Common Software (ACS). The triggered event data are time stamped, formatted and finally transmitted to the CTA data acquisition.

The software system developed to control the devices of an SST-1M telescope is described, as well as the interface between the telescope abstraction to the CTA central control and the data acquisition system.

Collaboration

CTA

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