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## The software system for the Control and Data Acquisition for the Cherenkov Telescope Array

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The Cherenkov Telescope Array (CTA), as the next generation ground-based very high-energy gamma-ray observatory, is defining new areas beyond those related to physics; it is also creating new demands on the control and data acquisition system. CTA will consist of two installations, one in each hemisphere, containing tens of telescopes of different sizes. The ACTL (array control and data acquisition) system will consist of the hardware and software that is necessary to control and monitor the CTA array, as well as to time-stamp, read-out, filter and store -at aggregated rates of a few GB/s- the scientific data. The ACTL system must implement a flexible software architecture to permit the simultaneous automatic operation of multiple sub-arrays of telescopes with a minimum personnel effort on site. In addition ACTL must be able to modify the observation schedule on timescales of a few tens of seconds, to account for changing environmental conditions or to prioritize incoming scientific alerts from time-critical transient phenomena such as gamma ray bursts. This contribution summarizes the status of the development of the software architecture and the main design choices and plans.

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