Event-Driven Site Controller for Distributed Optical SSA

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The Space Situational Awareness (SSA) and amateur astronomy communities have experienced a rise in the number of observatory management software systems that enable remote, or autonomous operation of telescopes. Many of these systems use a scheduler that allocates observation time in blocks.

The Lockheed Martin Advanced Technology Center has developed the Distributed Observatory Manager for Enhanced SSA (DOMES) over the past five years. DOMES enables remote and autonomous operation of several optical observatories, and has been designed specifically for the purpose of collecting SSA data. This paper will analyze the limitations of time-block schedulers used by the SSA community, and discuss the novel capabilities that have been implemented in the DOMES software.