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ABSTRACT

Reliable automation of SLR systems is complex and difficult to achieve. Successful automation will be multi-layered starting with a well designed foundation that includes environmental and safety aspects of laser ranging, with added capabilities to automatically track targets while maintaining good calibrations, to autonomously obtain predictions and publish data files, to automatically process raw ranging data and generate full rate and normal point reports, and to automatically generate tracking schedules. Many operations at Mt Stromlo SLR Station have for many years been conducted autonomously, and indeed the station operates unmanned for significant periods of time. This paper will provide an overview of these automated operations and experience gained over the years. More recent work developing auto-processing and auto-scheduling and supporting infra-structure will also be discussed.