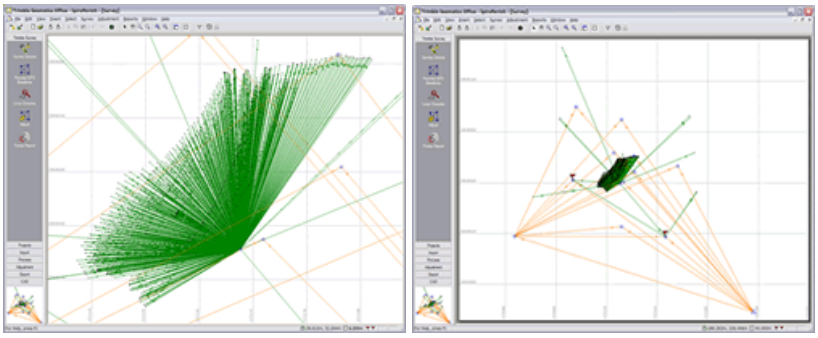
Trimble 5600

Checklist | Setup Operation

The Trimble 5600 DR 200+ is a robotic total station that provides a long range surveying capabilities. Technical specifications are available from the Trimble web site by clicking here.

This instrument is capable of 2" angular precision and, in reflectorless mode can measure distances up to 600m with an accuracy of 3mm +/- 2ppm. With the active prism, the EDM can measure distances up to 5,500 meters with an accuracy of 2mm +/- 2ppm. Used for control point placement, site stake-out, micro-topography surveys and more, the 5600 provides a flexible solution to many geomatics applications. The instrument may be linked via an integrated UHF radio to the powered prism pole so that, as the pole moves from point to point, servo motors swivel the total station's telescope in both horizontal and vertical angles to stay aligned with the active prism. Because the data logger is attached to the prism pole, the operator can control all aspects of the instrument remotely: one person surveys, even high resolution micro-topography, are feasible and have been demonstrated many times by researchers at CAST. One example was in the creation of a very high resolution topographic map of the Double Ditch Site by Ken Kkvamme and his collaborators. Information on that project is available here. Another project, at the Pea Ridge National Battle Field, used the system in a similar high precision mapping effort. Both angle and distance measurements are easily integrated with GPS data collected from the Trimble 5700/5800 in a least-squares network adjustment using Trimble's Geomatics Office software. The systems has been used in a number of innovative projects.



Green vectors represent measures from the 5600 total station to an active prism pole as part of a micro-topography survey. The orange vectors represent GPS base-lines measured in fast-static mode using the 5700/5800 instruments. The GPS observations were integrated with the total station survey to establish a geodetic reference for the survey.


The system was purchased with support from an NSF Major Research Instrumentation (MRI) grant.

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