

GNSS Surveying Solution R10



Trimble (USA) has during Intergeo 2012 in Hanover, Germany, introduced its next-generation GNSS surveying solution: the Trimble R10. As the smallest and lightest receiver in its class, the Trimble R10 combines powerful features and technologies including Trimble HD-GNSS to provide surveyors increased productivity. A quick-release adaptor and the ability to configure the receiver from a smartphone make it easy to deploy and use as a base station or rover.

With the introduction of the Trimble R10, new versions of Trimble's its field and office software have been released: Trimble Access 2012.20 and Trimble Business Center 2.80 to extend Trimble's Connected Site survey solution.

The Trimble HD-GNSS processing engine integrated in the Trimble R10 represents a new generation of core positioning technology for Trimble. It surpasses traditional fixed/float techniques to provide a more accurate assessment of error estimates than traditional GNSS processing engines. Measurements collected with Trimble HD-GNSS are precision-based so surveyors can confidently collect data in challenging environments where they may have been unable to collect data before. Reduced convergence times and instantaneous point measurements allow surveyors to start measuring sooner and up to 60 percent faster. Trimble 360 technology allows tracking of available GNSS satellite signals for existing and currently planned GNSS constellations and augmentations.

Trimble has extended its Trimble SurePoint technology, a cornerstone of the successful S-Series total stations, to the new GNSS surveying system. It simplifies the survey data collection workflow by providing faster measurements, increased accuracy and greater quality control. The Trimble R10 includes an electronic bubble that appears on the controller display so that all measurement information is displayed in one place. Trimble SurePoint constantly monitors the pole tilt and protects surveyors from collecting erroneous data by only allowing data to be stored when the survey pole is plumb. Simultaneously, pole tilt angle values are stored for every point collected to ensure data traceability.

Trimble xFill leverages a worldwide network of Trimble GNSS reference stations to deliver position information via geostationary satellites. xFill seamlessly 'fills in' for RTK or VRS corrections in the event of a temporary connection outage such as a radio black spot so users experience less downtime in the field.

Additional features of the new GNSS system include multiple connectivity capabilities such as Wi-Fi and 3G cellular connectivity, a lithium-ion battery, an integrated GNSS antenna, 4GB internal memory and an internal 2 Watt radio.

Trimble Access is a field solution that enables wireless connectivity between the project team members to expedite data collection, processing, analysis, and project information delivery through improved workflows, collaboration and control. The complete solution speeds both typical and specialised surveying tasks, and enables two-way information sharing between the field survey crew and the office. Surveys can be completed faster with less time spent travelling back and forth to the office.

Trimble Business Center office software is a complete surveying office suite designed to manage, analyse and process all field survey data, including data from optical instruments (total stations and levels), GPS/GNSS and spatial stations (imaging and 3D scanning data).