

RUGGED SPS985
GNSS SMART
ANTENNA ON A
ROVER POLE

TSC3
CONTROLLER
RUNNING
SCS900 SITE
CONTROLLER
SOFTWARE

SOLUTIONS FOR CHECKING GRADE AND SITE MEASUREMENT

Modern construction standards require adherence to tighter specifications and immediate response to potential quality problems on the job site. In the new construction environment, grade checking and site measurement can no longer be carried out conventionally, using a grade level and paper.

Contractors depend on the grade checker's work to maintain accurate progress reports, check the accuracy of construction to the 3D design, and check grade for conventional grading operations. If grade isn't checked on a timely basis, work can be delayed or errors can be introduced, resulting in costly rework.

Designed for the Work of the Grade Checker

With an ultra-rugged Trimble® SPS985 GNSS Smart Antenna on a rover pole and a Trimble TSC3 controller running SCS900 Site Controller Software, the grade checker has all of the tools necessary to stay on top of the hectic job. Trimble Site Positioning Systems and SCS900 field software were designed to simplify field workflows and data management for the grade checker, and they don't require a surveying background to operate.

The 3D site model is first prepared in the office using Business Center – HCE software and exported to the TSC3 controller for use in the field. Armed with digital site data on the controller, the grade checker or site engineer can tackle any measurement task quickly, including initial site surveys to verify elevations and checking volume estimates for site, road or rail construction, mining, or landfill projects.

Once the project is underway, the TSC3 and SPS985 rover can be used to conduct daily or periodic site measurements to check progress or stockpile volumes without waiting for a contract surveyor. Daily rover set up is fast and easy; the receiver, antenna, radio, radio antenna and battery are integrated into one housing, so there are no cables to attach and keep track of.

Grade checker functionality in SCS900 is very intuitive, displaying cut/fill as up/down icons at a particular location or over an area on the site. Using the SPS985 rover to conduct measurements also provides a more accurate real-time cut/fill record everywhere on the site, not just at intermittent points created by conventional methods. The grade checker can record layer information, calculate volume changes, and immediately take action to address any potential problems on site.

To facilitate grading operations, the grade checker can verify grade and capture as-built information, do slope staking, set out utility lines, roads or other site features. In all of these operations, SCS900 can store individual points to be used later for verification of layers and machine accuracy as well documentation of features such as retention ponds and drainage areas.



The Construction Technology Standard

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Staying Connected in the Field

As part of the Trimble Connected Controller solution, the Trimble Tablet has built-in communications capabilities to keep information flowing between the grade checker, supervisor, other job crews and the office.

Design updates, measurement results or site issues documented with a geotagged picture can be forwarded to any other person who can solve the issue -- no matter where the person is working. The grade checker can transfer progress reports, on-site problems, and as-built data back to the office on completion of on-site operations. Site issues and completed work can be photographed and sent back to the office overlaid on the site map — making it easier for managers to make instant decisions regarding remedial work.

Using this two-way data capability reduces delays and rework associated with using outdated information and syncing data only at the end of the grade checker's workday. Reducing delays and rework increases the likelihood that projects will finish on time and under budget.

Learn More

To learn more about how Trimble Site Positioning Systems can increase the efficiency of grade checkers, please contact your SITECH® Technology Distributor or visit <http://www.trimble.com/sitepositioning>

EQUIPMENT FOR GRADE CHECKERS:

Trimble SP5985 GNSS Smart Antenna

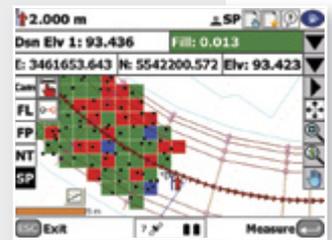
The ultra-rugged Trimble SP5985 GNSS Smart Antenna is built to withstand the rugged conditions of the construction site. It offers unmatched reliability for grade checkers performing precision construction site measurement tasks.

Trimble TSC3 Controller

The Trimble TSC3 controller features onboard GPS, wireless communications and a digital camera, combining the benefits of multiple handheld devices into a single unit.

Trimble SCS900 Site Controller Software

Trimble SCS900 Site Controller Software organizes job site information the same way contractors already work, and an intuitive interface makes SCS900 easy to learn and use for tasks such as grade checking, staking, or measuring as-builts.



SCS900 displays color coded cutfill maps to easily visualize and report grade check results.

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