

3D MACHINE CONTROL FOR DOZERS, GRADERS, EXCAVATORS & SCRAPPERS



The next-generation Trimble® GCS900 Grade Control System puts design surfaces, grades and alignments inside the cab using Global Navigation Satellite System (GNSS) technology. The system uses the MS980 smart antenna, a fully integrated GNSS receiver and antenna, mounted to each end of the machine blade. You can operate the system in a completely stakeless environment and grade to an accuracy of 20-30 mm (0.1 ft).

On a dozer or grader, the GCS900 can operate in either indicate or automatic mode:

Indicate mode – Light bars and a graphical color display use the project design information and 3D GNSS position and cross slope to show the operator what blade elevation and cross-slope movement is required to get to grade. The unique, dual GNSS antenna system indicates the exact position, slope and cutting edge orientation for faster grading of complex designs and maintaining accurate blade cuts.

Automatic mode – The GCS900 system is connected to the machine hydraulics. Using 3D GNSS position, cross-slope and design information, the blade is automatically moved to the exact elevation and cross slope. The result: Significant improvements in both productivity and accuracy. If large cuts are required, the operator can instantly offset the design surface so smaller amounts are cut on each pass.

The GCS900 is a simple, easy-to-use, rugged machine accessory for your whole fleet. It gives you more value and greater return from your machine and operator. Using the GCS900 can help you reduce material overages and dramatically improve your project profitability.



target. This unique feature eliminates false lock-ons, ensuring that the correct machine is being tracked. Additionally it has built-in "search intelligence" to quickly search for and find the target when lock is lost. The high up-date rate, low latency and synchronized angle and distance measurements capabilities make it perfect for

dynamic applications. Ideal for motor graders performing fine or finished grade, you can use the ATS Construction Total Station for GCS900 blade guidance to ± 2 millimeters (0.007 ft).



The GCS 900 ATS includes a total station, a license-free radio link and an active target mounted to the motor grader blade. The ATS uses active target technology to reliably lock onto and track the



LASER AUGMENTATION

TRIMBLE SR300 LASER RECEIVER

The Trimble SR300 Laser Receiver is available as an option for use with a GNSS based GCS900 system to provide improved vertical accuracy. This laser receiver is ideal for GNSS operations with tight tolerances. The SR300 features 360 degree receiving and works with a standard laser transmitter such as the Trimble GL700 series of grade lasers or the LL500 Laser Level. And with intelligent rejection of invalid laser beams the SR300 is designed to work on jobsites where other lasers maybe present. You can use the SR300 with the GL700 series of Grade Lasers for GCS900 blade control to 3-6 millimeters (0.01 to 0.02 feet).



2-WAY DATA COMMUNICATIONS

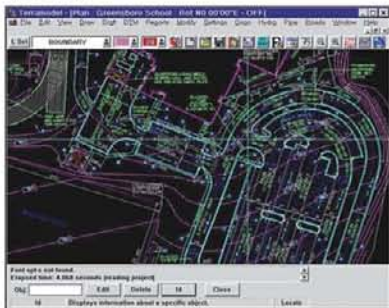


Trimble's two-way data solution allows you to get updated design data to the field now – not later today, tomorrow or next week. Once design changes are made and approved, getting the information out to the machines is as easy.

Two-way data improves turnaround time for design changes and problem solving, allowing contractors to realize productivity gains throughout all phases of the job.

DATA PREPARATION

Using TerraModel Software, we can provide you with the information you need to achieve the best results in the field or office. Whether its data for machine control, stakout, earthwork volumes, or basic CAD information, our data management service can give you the information you need to get your job completed in a timely and cost effective manner. These include converting 2D data, either from paper or electronic files, to 3D for use in a variety of field and office applications.



GPS SITE SURVEYING



You can use GCS900 Data Collector software at every stage of construction:

- >Perform initial site measurement and verification of original ground levels
- >Measure site features
- >Check finished grade and laid material thickness
- >Topo site or material stockpiles and compute volumes
- >Stake out points, lines, alignments, planes and surfaces
- >Carry out as-built site measurements

This easy-to-use software helps you efficiently conduct and quantify site operations so you don't need to rely on a contract surveyor for all your site measurement and stakeout requirements.