

# **INTEGRATED GPS+ SURVEYING/FIELD DESIGN/LAND LEVELING**



**Precision GPS+ control, and the industry's easiest-to-use field design and survey software**

## **AGS**

- FEATURES TOPCON'S DUAL CONSTELLATION (GPS & GLONASS) GPS+ TECHNOLOGY
- EASY UPGRADES SO YOU'RE ALWAYS USING TOPCON'S LATEST TECHNOLOGY
- BACKWARD COMPATIBLE - USE WITH EXISTING TOPCON LASER, SONIC, AND SLOPE SYSTEMS

## **AGForm-3D**

- SURVEY LARGE FIELDS ACCURATELY IN ONE SETUP
- VIEW CONTOURS, PROFILES, AND 3D MODELS OF EXISTING AND DESIGNED MODELS
- ...MUCH MORE



# It's time.

Topcon's AGS control systems take precision land leveling beyond the limits of laser control. No more drift, virtually endless range and so simple to use that you'll start increasing productivity on Day 1. Everything is controlled from the operator-friendly AGS-C control box. Survey the field, create a cut/fill field design map, and begin grading without leaving the cab! If desired, the survey data can be saved to a CompactFlash® card for more detailed farm design work using AGForm-3D software. Best of all, the AGS-C control box is not only compatible with your existing Topcon laser system, it's field upgradeable so you'll stay current with future Topcon AGS innovations.

## AGS-100 & AGS-200

Topcon's single bucket AGS-100 and dual bucket AGS-200 solutions are the advanced way to get the most out of your fields. Automatically survey in minutes right from the cab. Turn on the steering guidance light bar for more efficient and consistent survey patterns. After surveying, set desired field slopes, or let the AGS-C control box accurately calculate "best-fit" slopes reducing yardage more than 10% vs. traditional laser survey and hand calculations. You can even copy the file to a CompactFlash® card and transfer it to a PC running Topcon's AGForm-3D field design software to break the field into sections and further reduce yardage. You'll shorten haul distances and minimize topsoil cuts.

Fields warped too much for laser control? With Topcon's AGS controlled leveling, you can still get the irrigation and drainage benefits too difficult to level using traditional laser control. Using AGForm-3D software, you can design the field to retain the natural slopes while smoothing out the highs and lows that impede water flow and cause drainage problems. Or simply level the sections that are causing problems.

## AGForm-3D Field Survey & Design software

With AGForm-3D, view existing ground and designs using contour views or 3D graphical views. 3D-view works at any location and angle to find the best place for section breaks and grade changes. Also view and compare existing and design cross section profiles from any angle – great for determining break line locations.

AGForm-3D will design the field section as a best-fit plane, single slope, or dual slope plane. Or, significantly reduce the earthwork yardage by breaking the field into multiple sections, shortening haul distances and minimizing topsoil cuts.

AGForm-3D also has handy design tools that calculate distance, slopes, area, and volumes, very helpful when designing road and ditch pads. You can even determine the import or export volumes needed for pads or roads. These import and export values can then be factored into the design of adjacent or nearby sections to help optimize earthwork quantities.



## AGS and AGForm-3D

Ag Survey, Design, & Leveling System and Software



## The World's most advanced GPS+ technology built to withstand the hostile environment of even your toughest jobs. Only Topcon has it!



### AGS-C Control Box

- Cut/fill map shows the operator exact cut/fill areas
- Automatically adjusts grade and slopes when cutting multiple sections and building road or ditch pads
- Sections displayed real-time, no need for additional survey staking or section marking
- High winds, heavy dust, or even fog? With AGS-C you'll always know exactly where you are
- Large, full color touch screen makes set up and operation fast and simple.



### MC-A1 GPS+ Antenna

- Dual-frequency/dual-constellation receiving
- Micro-center technology provides the highest horizontal and vertical accuracies available
- Integrated ground plane eliminates errors caused by multipath.
- Easy-lock collar mount fits standard 2.5" vibration pole



### AGS-R1 Machine Mounted GPS+ Receiver

- ?



### AGS-T Base Transmitter

- Super-fast and easy setup – tripod, tribrach, and HiPer Lite + – you're done!
- Integrated spread spectrum radio works up to 1.5 miles away - no FCC licensing requirements
- 40-channel dual-frequency GPS plus GLONASS availability
- Exclusive AMR and Co-op Tracking™ technology
- Cable-free rover works with Bluetooth® wireless technology equipped field controllers



## Topcon's AGS-C control box, easy-to-use, bright, full color information at the operator's fingertips. The standard by which all other positioning system interfaces are measured.



The CompactFlash® port on the AGS-C control box allows you to be in complete control of your design files. Save your survey files to a CompactFlash® card and save them to your desktop or laptop computer running AGForm-3D for quick and efficient segmentation of the field for optimum productivity. Once you're ready, copy the files back to the AGS-C and go to work.



Select the steering indication option and the AGS-C displays a color-coded guide on the lower screen to keep you on the optimal path. Increase efficiency by avoiding overlapping cuts, and keep productivity up even in inclement weather.

### Don't be left behind

Other systems require you to scrap your old system when it's time for GPS. Topcon's experience in laser leveling means we have produced a system that is not only compatible with your existing Topcon laser system, but the operation is also just like the laser system. An operator can switch from laser control and operate AGS-100 with

### Fast, simple setup

Topcon's HiPer Lite+ GPS Base Transmitter makes setup simple. The HiPer Lite+ is an all in one unit, GPS receiver, radio, and antenna with a rechargeable battery pack, no messy cables to break or hook up. Just mount it on a short tripod or pole, push the power button, and start moving dirt! And unlike conventional laser systems, there is no time lost moving heavy laser towers, calibrating the instrument, or adjusting slopes trying to match grade. You start grading as soon as you're in the cab – no system warm up necessary, and no wondering if the grade is right. Laser drift and refraction are things of the past, so you only move the dirt once. With the HiPer Lite's 1.5 mile radio range, you can grade up to 4,524 acres with one setup and eliminate wasted time getting multiple laser setups to match grade. And since GPS follows the earth's curvature, there is no wasted time blending multiple laser setups, and you get more uniform irrigation than with planes created by lasers.

### Only Topcon gives you dual-constellation GPS+ for maximum productivity.

If there's one overwhelming advantage to Topcon GPS+ it's this—we provide access to 75% more satellites than ordinary GPS. That's because GPS+ has the ability to track not only both frequencies of all 24 GPS satellites, it can also receive the signals from the 20 GLONASS positioning satellites giving you precision accuracy 24/7.



## The Leader in Positioning Technology...

Topcon offers positioning products that deliver unparalleled site-wide performance and integration. Topcon's history of technological advances and our reputation for superior reliability means there's no other company positioned to provide you with a better "Total Positioning Solution."

From survey to inspection Topcon, through our 170+ dealers throughout North and South America, provides the innovative technology that gives surveyors, civil engineers, contractors, equipment owners, and operators the competitive edge by addressing such critical issues as increasing profits, quality craftsmanship, improving productivity, lowering operating costs, and enhancing job site safety.

Full positioning integration field-to-finish: That's the goal of Topcon. When it's time for you to step up to the next level, it's time to turn to Topcon.

## The Leader in Customer Satisfaction...

To ensure that your Topcon instrument maintains peak performance, your local Topcon dealer offers factory trained and certified service technicians. If service isn't available in your area, our factory offers a repair and return policy second to none.

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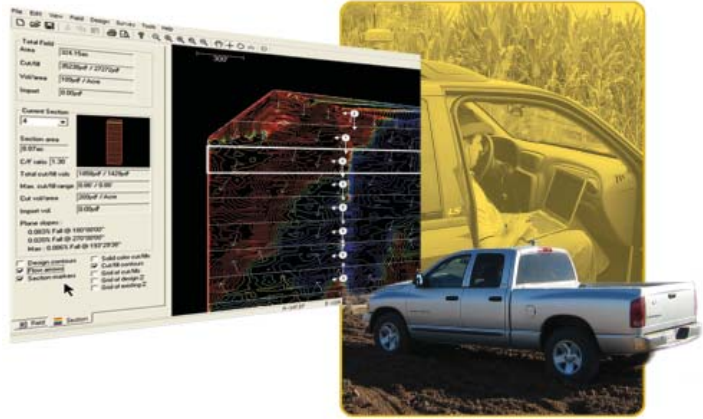
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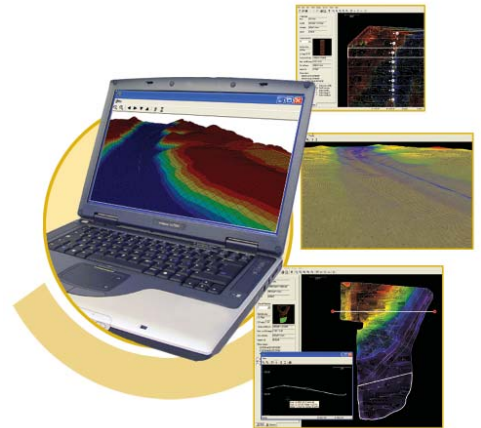
**AGForm-3D is the ideal field survey and design program to complement your AGS-100 GPS Land Leveling System or existing laser system. Combine AGForm-3D with Topcon's HiPer Lite+ GPS System, and you can:**



- Survey large fields accurately and efficiently in one setup – even fields with large elevation changes and irregular shapes
- Accurate surveying in dust, wind, and fog
- View contours, profiles, and 3D models of existing and designed surfaces
- Design fields with single or multiple sections to suit your needs
- Stake out benchmarks, set cut/fill hubs and section perimeters, and lay out alignment points for laser setup
- Transfer files to the AGS-100 Land Leveling System for automatic GPS control

### Create the best field design

To be able to create the best field design possible, you need to know what the field topography looks like. With AGForm-3D you can view the existing ground and designs using contour views or the 3D graphical view. The 3D-view works at any location and angle to find the best place for section breaks and grade changes. Also view and compare existing and design cross section profiles from any angle – great for determining break line locations.



With its simple, but powerful design tools, AGForm-3D will design the field section as a best-fit plane, single slope, or dual slope plane. Or, significantly reduce the earthwork yardage by breaking the field into multiple sections. With multiple sections, haul distances are shortened as well as top soil cuts being minimized. Sections can be "terraced" with dirt balancing within each section, or side-by-side sections can be "hinged" with a seamless edge.

AGForm-3D also has handy design tools that calculate distance, slopes, area, and volumes. These tools can be very helpful when designing road and ditch pads.

AGForm-3D can help you determine the import or export volumes needed for pads or roads. These import and export values can then be factored into the design of adjacent or nearby sections to help optimize earthwork quantities.

Your local Authorized Topcon dealer is: