



# SURVEY PRO



# SIMPLICITY, RELIABILITY, AND SECURITY

Spectra Geospatial Survey Pro™ software gives you a complete set of tools for all your survey projects. It's fast, easy to use, and reliable, so you can work more productively in the field. Use Survey Pro on a range of field proven Spectra Geospatial rugged data collectors. Combined with Spectra Geospatial Central, Survey Pro also provides file backup and collaboration tools to provide an even bigger productivity boost.

## SPECTRA GEOSPATIAL RANGER DATA COLLECTORS



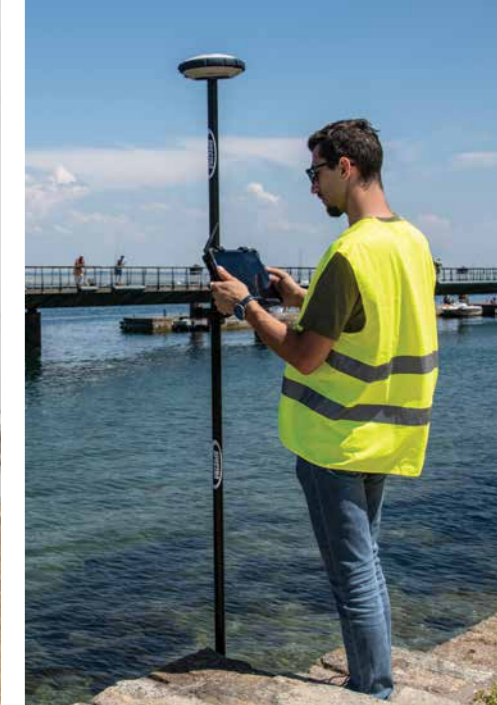
### RANGER 7

With its large 7-inch touch screen, full keypad, and Windows 10 Pro operating system, Ranger 7 is built to hit the mark for surveyors requiring an easy-to-use, rugged data collector. It seamlessly runs MS Office applications, Skype e-mail, Survey Pro and other survey and GIS applications.



### RANGER 3

The Spectra Geospatial Ranger 3 Data Collector offers a large, bright touch-screen, full alpha-numeric, easy to operate keypad, and is packed with the features surveyors depend on. Built rugged, it meets rigorous MIL-STD-810G military standard for drops, vibration, humidity and extreme temperatures, and with an IP67 rating, it's designed to keep your investment and your data safe. The Ranger 3 comes standard with 8 GB of onboard memory for storing data. Move your data fast and easily using a SDHC card, Bluetooth, USB cable, USB memory stick, Wi-Fi, or WWAN modem



### ST10 TABLET

The ST10 tablet has a bright, high contrast, sunlight readable 10-inch screen to give you the area you need to easily see your data or manage map layers. Combined with its powerful processing capabilities you'll be more productive, achieve faster results and catch errors in the field, saving valuable time and money.



### T41 DATA COLLECTOR

The T41™ Data Collector is rugged, powerful, connected and compact, offering high performance with a high resolution outdoor readable display. The slim, ergonomic design is easy to hold and enables all-day use. The capacitive touch-screen protected by Gorilla® Glass provides intuitive and responsive finger-tip touch capability.

## SPECTRA GEOSPATIAL CENTRAL

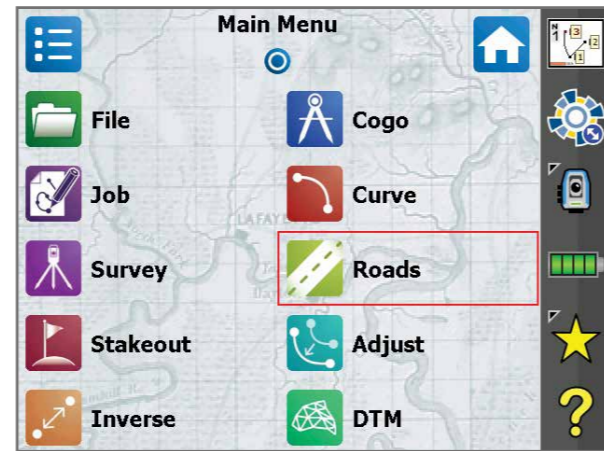
Spectra Geospatial Central provides a cloud computing hub for your complete survey team to connect and exchange information from anywhere there is a data connection. A cloud service is nothing more than internet accessible data storage. It's how you access and use the data that is really the important part. Central is designed for professionals who make their living outside, doing measurements, and building the world.

### Web Portal

The web portal provides an easy way to edit, manage, and use your Central accounts and data. It can be accessed with any browser from your office computer, tablet, or smart phone. Smart Phone Applications

### Spectra Geospatial Central Sync

Central Sync is a tool that runs as a service on your computer and synchronizes the data files that are placed in the Central folders. This makes file management and synchronizing data with Central very easy.



## ALL THE TOOLS YOU NEED TO DO THE JOB RIGHT

Use it for measurements, general layout, COGO, attribute collection, road layout and all types of mapping and general surveys, cadastral surveys, and more.

### THERE'S NOTHING BETTER

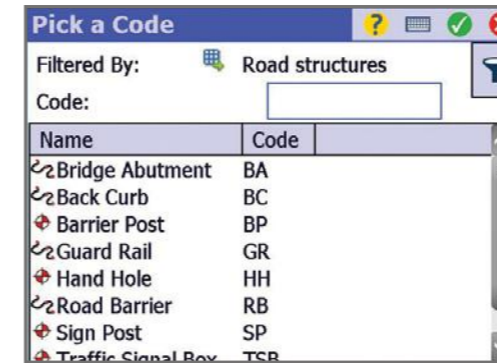
Full featured data collection, calculation, mapping, data storage, and data management, all in one package. Survey Pro works with GPS/GNSS, Robotic instruments, mechanical instruments, digital levels, and even manually. Data can be combined seamlessly and processed through the office software without hassles. Based on over 25 years of survey software development experience, the latest version of Survey Pro now does even more to increase productivity, reduce errors, and ensure you can do your work the way it needs to be done. And now with Spectra Geospatial Central, your data can be backed up and shared from the field automatically and securely.

### SETUP

Survey Pro setup routines are designed to get you working as soon as possible. Multiple instrument setup options using known points or resection means you can work the way you need to work. Results are conveniently displayed making it easy to check the setup. All setup data is stored and is easily reviewed and edited as necessary using the integrated data editor. If an instrument height is updated, all affected coordinates will also be updated. Survey Pro puts you in control.

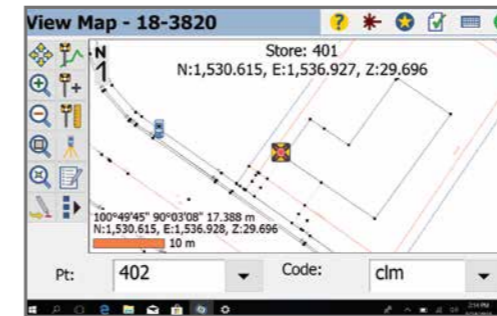
### GNSS SETUP

Survey Pro provides two main methods of configuring a GNSS survey: Mapping Plane and Calibration. With these two methods, there is nearly infinite flexibility. Calibration allows you to use a local coordinate system, often set using total stations. This keeps everything aligned which makes you more productive. Survey Pro walks you through the process and provides check routines to ensure everything is spot on.



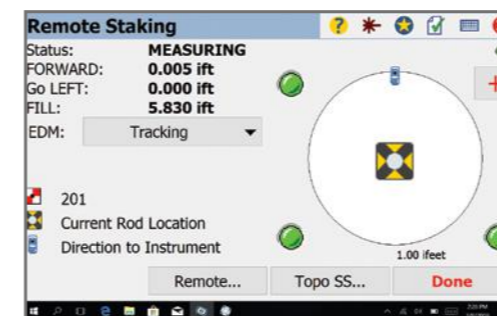
### CODE AND ATTRIBUTE COLLECTION

Using the Survey Pro code system is as easy as using the original descriptor system. Type in text and save it. Or, you can define codes like "utility pole" and "water line" in the field or in the office. Add codes and attributes as you survey. Using line codes, Survey Pro will automatically draw lines in real time making it easy to verify your work before leaving the job site. Process and adjust the data in Spectra Geospatial Survey Office and export to common data formats when you are done.



### ACTIVE MAPS

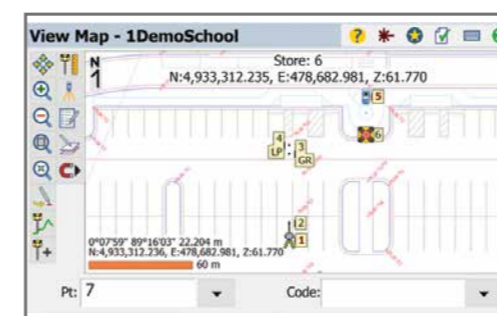
Seeing your data graphically helps speed your work and ensures there are no mistakes. Survey Pro provides several exciting map features for just this reason. Active Maps provide a way to do calculations or initiate measurements right from the map views. Tap on a point to stake it. Tap two points to compute the inverse. Or, enter Survey Mode and collect points seeing them appear on the map as they are measured. Active Background Maps provide a method of importing DXF files that can be used for calculations or staking. Select a DXF line and offset points or stake it. You have full control of the DXF file layers; hide them, show them, or freeze them. See what you need to see, how you need to see it.



### STAKEOUT / LAYOUT

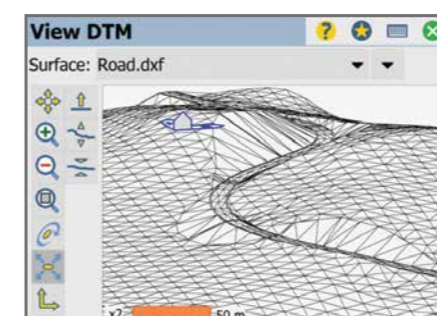
Survey Pro provides tools to complete your stakeout tasks more efficiently. Using an active map view or interactive features, Survey Pro navigates you to the points you need to stake, when you need to stake them. Points are checked off as they are staked, preventing you from duplicating observations.

Survey Pro stores all measurement data and any as-built or as staked points that are collected. This data can then be used for cut sheet reports using Survey Office or XML Style Sheets to create reports on your data collector while still in the field.



### MAX+

Survey Pro has always worked with both GNSS and total stations with the data shared in the same file. Now, Survey Pro supports using both GNSS and Robotic instruments at the same time. Setup your robot using a GNSS position you just measured for the occupy point and for your backsight point. Switch to GNSS for a measurement when the total station line-of-sight is blocked. Use whichever tool is best for the situation. Max+ provides you the flexibility to decide and then act immediately.



### DTM

Manage and open multiple DTM surfaces to use for staking. Select a centerline to use for horizontal control showing station and offset values along with cut/fill. DTM's can be imported via LandXML, DXF, and other formats. Or, choose a layer or specific points to create your own surface in the field. It's perfect for borrow pits and stockpiles. Survey Pro's updated DTM engine and displays make using surfaces faster and more intuitive than ever before.

# POWER FEATURES

Survey Pro continually improves with capabilities that make your job easier, help you work more productively, and get the job done right. Some of the most recent feature enhancements include:

## DATA MANAGEMENT CONTROL

Flexibility in data collection with the ability to edit survey data to fix entry errors or blunders and immediately get updated coordinates. Change a rod height and see the change cascade through the file with our enhanced dynamic file viewer/editor.

## ACTIVE DXF

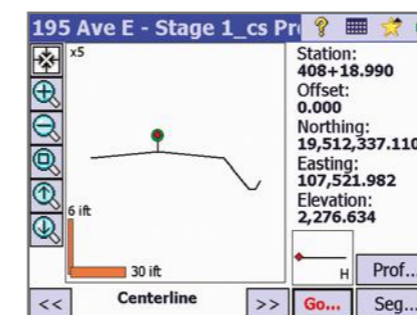
Support staking with DXF files to enable data flow from design software to your field crews, improving efficiency on the road or construction site. Import a DXF file as a background map to select objects like lines and nodes for staking or calculations. Survey Pro also provides control over the layers you are viewing and what layers you can select objects from allowing you to see what you need to see.

## OPTIMIZED WORKFLOW

Survey Pro contains a user customizable Home screen enabling you to configure your favorite choice of field processes to expedite your daily workflow. Easily switch between functions by selecting the home screen and choosing your next action. Also use the graphical Active Survey map screen to speed your activities. For example, tap and hold to create new points, then select your points and switch to your graphical stakeout screen to complete the task. Also, the customizable Quick Pick feature provides a custom menu that is available from most survey screens and allows you to jump to another feature

## IT'S MORE THAN JUST SOFTWARE

When you choose Survey Pro, you get software built on more than 25 years of experience. You also get software that's continually enhanced thanks to input from surveyors in the field. Many of our people—including members of the Survey Pro development team—have worked as surveyors so we understand how a small change to an existing function can help you be more productive or make your job easier. That's why—and how—we continuously improve Survey Pro, along with all our hardware and software. So go ahead—tell us how we can make Survey Pro work even better for you.



## ROADS

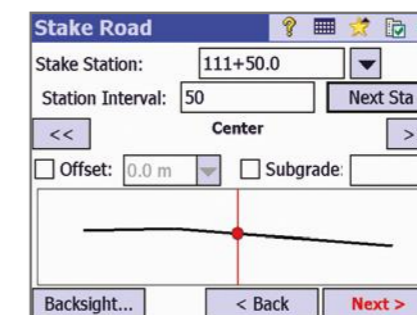
Import road data from Spectra Geospatial Survey Office via a RXL file, which is also a supported format in many other CAD packages, or from a LandXML file. Multiple roads can be loaded into the road manager to use for road staking/layout. View any station and offset along the road, view a vertical profile, and see cut slope values for any station. It's all there.

## SURVEY STANDARD™

A complete data collection package for surveyors. It contains a complete COGO suite as well as traverse, sideshot and staking routines.

## SURVEY PRO

Shares all Survey Standard functions and adds advanced road layout routines, advanced staking routines, attribute collection, DTM routines, and much more.



## ROAD STAKEOUT

The road staking capabilities enable you to stake any part and even locate catch points. Once your road has been opened, Survey Pro provides a comprehensive set of road stakeout tools and graphical views, depending upon which element of the road you are staking out. Quickly edit and view the road definition in the field using the road editor. Points can also be staked out to a predefined subgrade offset, depending upon the phase of the job you are working on.

## SURVEY PRO GNSS

Shares all the Survey Pro functions, and it provides the capability to collect data from RTK GNSS receivers. Survey Pro GNSS software is easy to use, reduces training and simplifies setups. All staking functions are supported in the GNSS module.

## LEVELING MODULE

Add Leveling to any module of Survey Pro to add support for level loops, trigonometric leveling, and digital level drivers.



## SLOPE STAKING

Slope stake using a complete road definition, or define it yourself in the standard slope staking screen, or just pick a point to use as the anchor. Survey Pro displays all shots on a vertical realtime map display so you can see the profile, and quickly locate and stake the catch point.

## SURVEY PRO ROBOTICS

Shares all Survey Pro functions and adds support for controlling robotic total stations. Use the data collector at the rod to take measurements, control the instrument, and finish the survey faster than ever before.

## SURVEY PRO MAX™

The ultimate field software. It integrates Survey Pro Robotics and Survey Pro GNSS functions, enabling you to use the same job files with both GNSS receivers and total stations.

- Survey Standard
- ▲ Survey Pro
- ◆ Survey Pro Robotics
- Survey Pro GNSS
- ★ Survey Pro Max

**TITLE BAR/TASK BAR/MENU**

Toggle collection mode (total station/GNSS)				■	★
Battery status indicator	●	▲	◆	■	★
Map access button	●	▲	◆	■	★
Editable quick picks	●	▲	◆	■	★
Home screen	●	▲	◆	■	★
Build your own custom menu	●	▲	◆	■	★

**FILE**

Import/export	●	▲	◆	■	★
JOB, RAW, TXT, CSV, LandXML, JobXML, CR5.	●	▲	◆	■	★
Import Control	●	▲	◆	■	★
Backup/Restore	●	▲	◆	■	★

**JOB**

Edit points/polylines	●	▲	◆	■	★
Edit alignments		▲	◆	■	★
Auto linework (real time)		▲	◆	■	★
View/edit raw data	●	▲	◆	■	★
View DTM		▲	◆	■	★
Manage layers	●	▲	◆	■	★
Calculator	●	▲	◆	■	★
AU Conversions	●	▲	◆	■	★

**SURVEY (CONVENTIONAL MODE)**

Backsight setup	●	▲	◆	■	★
Traverse/sideshot	●	▲	◆	■	★
Quick shot <sup>4</sup>	●	▲	◆	■	★
Repetition shots	●	▲	◆	■	★
Multiple sideshots	●	▲	◆	■	★
Distance/angle offset	●	▲	◆	■	★
Corner & 2 lines	●	▲	◆	■	★
Corner & angle	●	▲	◆	■	★
Corner & offset	●	▲	◆	■	★
Corner & plane	●	▲	◆	■	★
Shoot from 2 ends	●	▲	◆	■	★
Resection	●	▲	◆	■	★
Remote elevation	●	▲	◆	■	★
Check point	●	▲	◆	■	★
Bluetooth support (Recon)	●	▲	◆	■	★
Solar observation		▲	◆	■	★
Remote control			◆	■	★
Fine turning			◆	■	★
Tap to turn			◆	■	★
Surface Scan <sup>2</sup>		▲	◆	■	★

**STAKEOUT**

Quick stake <sup>4</sup>	●	▲	◆	■	★
Cut/fill to design grade	●	▲	◆	■	★
Generate cut sheet data	●	▲	◆	■	★
Turn instrument to stake with 2-D and 3-D modes			◆	■	★
Remote stake from rod			◆	■	★
Stake points/list of points	●	▲	◆	■	★
Stake to line/polyline	●	▲	◆	■	★
Offset staking		▲	◆	■	★
Slope staking from line or point		▲	◆	■	★
Stake to line and offset	●	▲	◆	■	★
Stake to curve and offset	●	▲	◆	■	★
Stake to spiral and offset		▲	◆	■	★
Stake DTM		▲	◆	■	★
Define a location	●	▲	◆	■	★
Where is next point	●	▲	◆	■	★
Slope staking from a point		▲	◆	■	★
Station staking		▲	◆	■	★

**INVERSE**

Multiple types	●	▲	◆	■	★
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**COGO**

Point in direction	●	▲	◆	■	★
Intersection	●	▲	◆	■	★
Offset line/points	●	▲	◆	■	★
Corner angle	●	▲	◆	■	★
Compute area	●	▲	◆	■	★
Triangle solutions	●	▲	◆	■	★
Map check	●	▲	◆	■	★
Predetermined area	●	▲	◆	■	★
HD/VD to/from SD/ZA	●	▲	◆	■	★
Station & offset		▲	◆	■	★

**CURVE**

Curve solution	●	▲	◆	■	★
PI and tangents		▲	◆	■	★
3-point curve		▲	◆	■	★
Radius point	●	▲	◆	■	★
Tangent to circles		▲	◆	■	★
Curve layout	●	▲	◆	■	★
Traverse on a curve	●	▲	◆	■	★
Parabolic curve/layout	●	▲	◆	■	★
Straight grade	●	▲	◆	■	★
Spiral/spiral layout		▲	◆	■	★
Traverse on a spiral		▲	◆	■	★

**ROADS**

Create/edit templates (cross-sections)		▲	◆	■	★
Create/edit alignments		▲	◆	■	★
Save alignment to file		▲	◆	■	★
Add super elevations to road		▲	◆	■	★
Add widenings to road		▲	◆	■	★

**ROADS**

Road stakeout		▲	◆	■	★
Import LandXML Roads		▲	◆	■	★

**ADJUST**

Scale/translate/rotate	●	▲	◆	■	★
Traverse adjust	●	▲	◆	■	★

**MAP VIEWS**

Active Background maps					
DXF Layers	●	▲	◆	■	★
DXF Colors	●	▲	◆	■	★
Select objects for survey operations	●	▲	◆	■	★
Active Survey Map					
Collect points	●	▲	◆	■	★
Manage linework	●	▲	◆	■	★
Inverse point to point or line or location	●	▲	◆	■	★
Create Point	●	▲	◆	■	★
Stake to point or location	●	▲	◆	■	★
Show past results	●	▲	◆	■	★
Survey Setup display					
Occupy point	●	▲	◆	■	★
Backsight point	●	▲	◆	■	★
Base location	●	▲	◆	■	★
Rover location	●	▲	◆	■	★
Rod location	●	▲	◆	■	★

**SURVEY (GNSS MODE)**

Cell phone/radio modem settings				■	★
GPS/GNSS status				■	★
Network connection manager				■	★
Base/rover setup (Smart Setup)				■	★
Control points				■	★
Collect point, features, offset				■	★
Projection setup/statistics				■	★
Remote elevation				■	★
Projection Calculator				■	★
Receiver file manager <sup>3</sup>				■	★

**SETTINGS (GNSS MODE)**

Post process				■	★
Map Projection or Calibration (local transformation) modes				■	★
Adjust with projection and control update				■	★
All stakeout functions with GPS receiver				■	★

Please note: This chart is an abbreviated general guide to software functions. All specifications are subject to change without notice.

1. Export Only.
2. Requires motorized instrument.
3. For Spectra Geospatial and Trimble receivers.
4. Only available on the Nivo C, FOCUS 8 and FOCUS 30.

**SURVEY STANDARD™** is a complete data collection package for surveyors. It contains a complete COGO suite as well as traverse, sideshot and staking routines.

**SURVEY PRO** shares all Survey Standard functions and adds advanced road layout routines, advanced staking routines, attribute collection, DTM routines and much more.

**SURVEY PRO GNSS** shares nearly all the Survey Pro functions, and it provides the capability to collect data from RTK GPS/GNSS receivers at centimeter-level accuracy. The GNSS software is easy to use, reduces training and simplifies setups. It provides meaningful error messages if anything goes wrong. All staking functions are supported when using GNSS receivers.

**SURVEY PRO ROBOTICS** shares all Survey Pro functions, works with all major brands of robotic total stations, and adds graphical staking screens.

**SURVEY PRO MAX™** is the ultimate field software. It integrates Survey Pro Robotics and Survey Pro GNSS functions, enabling you to use the same job files with both GPS/GNSS receivers and total stations.

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