

Survey Pro Software

**Includes Spectra
Precision Central:**
Spectra Precision's
cloud computing solution.

Survey Pro: Simply The Best





Simplicity, Reliability, and Security

Spectra Precision® 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 Precision rugged data collectors. Combined with Spectra Precision Central, Survey Pro also provides immediate file backup and collaboration tools to provide an even bigger productivity boost.

Spectra Precision Ranger 3 Data Collector

The third generation Spectra Precision® Ranger™ 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.



Spectra Precision Nomad 900 Data Collector

The Spectra Precision® Nomad® Data Collector, packed with functionality, is an extremely powerful and full-featured rugged data collector. In addition to meeting rigorous military standards the Nomad uses a high speed 806 MHz processor, a longlife, 5200mAh lithium-ion battery, and integrated wireless capabilities like GPS, Wi-Fi 802.11g, and Bluetooth for power and flexibility.





Spectra Precision T41 Data Collector

The Spectra Precision® 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. A new capacitive touch-screen protected by Gorilla® Glass provides intuitive and responsive finger-tip touch capability. The T41 handheld has 3.75G cellular data capabilities plus cellular voice and SMS capabilities.



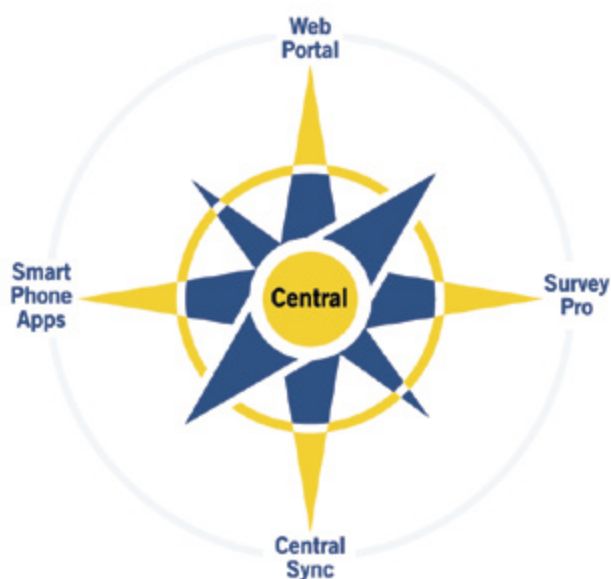
Spectra Precision MM20 Data Collector

The Spectra Precision® MM20 Data Collector delivers maximum performance and reliability in a lightweight but rugged design. It's dust- and waterproof and weighs just 380 g (13 ounces). It features long battery life making it a perfect tool for long surveying tasks. The MM20 provides Bluetooth, wireless LAN (WiFi), and GSM/GPRS/3.5G modem. Top that off with a 5M pixel camera and built-in GPS, and you have a powerful, yet inexpensive tool.



Spectra Precision Central

Spectra Precision 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. Spectra Precision Central is designed for professionals who make their living outside, doing measurements, and building the world.



The Parts

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

Survey Pro Central for Android and Survey Pro Central for iOS provide access with dedicated smart phone and tablet apps. These apps provide data access and a range of functionality to help you manage your data, and therefore your workday, better.

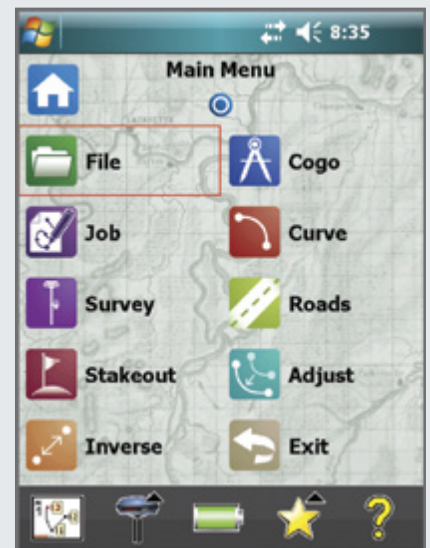
Spectra Precision Central Sync

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.

Survey Pro Integration

Survey Pro is fully integrated into Spectra Precision Central. Files are uploaded as they are created. New data is sent up to Central based on user preferences. So now, not only do Spectra Precision ultra-rugged data collectors and dedicated field software protect your data, so does Central, backing it up on a remote server.

See the Spectra Precision Central product brochure for more information.



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

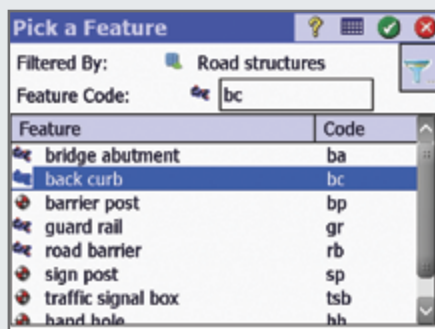
Full featured data collection, calculation, mapping, data storage, and data management, all in one package. Survey Pro works with GPS/GNSS, Robotic instruments, mechanical instruments, digital levels, and even manually. Data can be combined seamlessly and processed through the office software without hassles. Based on over 20 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 Precision 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.

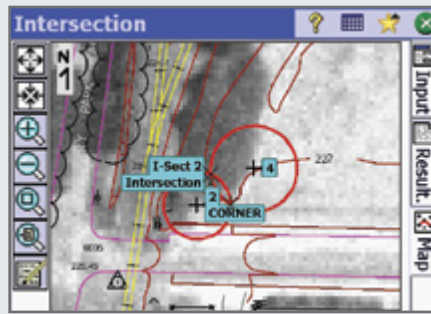
GNSS Setup

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.



Feature and Attribute collection

You can define features like “utility pole” and “water line” using feature codes in the field or in the office. Add features and attributes as you survey. Using line features, 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 Precision Survey Office and export to common data formats when you are done.



COGO, Inverse, and Curves

Survey Pro software provides powerful Coordinate Geometry (COGO), Inverse and Curve functions. The calculation tools give you the power to do just about anything in the field. The end result is more productivity.

Spectra Precision Central

Spectra Precision Central is a cloud computing solution that provides real-time data upload, backup, and download along with the tools to easily access your data wherever you are. Central is fully integrated into Survey Pro making it easy to use.

Survey Pro Central for Android and iOS are the perfect companion tools. These apps allow access to your Central account so you can manage your data from just about any smart phone. These apps come with your Spectra Precision Central account.

Central also has a dedicated web portal giving you complete access and control over your accounts and account data.



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 Spectra Precision Survey Office or XML Style Sheets to create reports on your data collector while still in the field.

Stake DTM surfaces and use the data collected to compute volumes in the field. View the resultant DTM being staked in the field to determine where additional points might be needed. Survey Pro displays cut / fill information for any location on the DTM surface in real-time.



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**

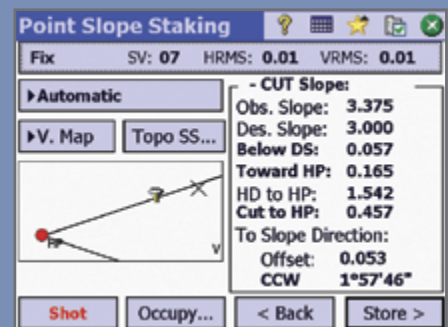
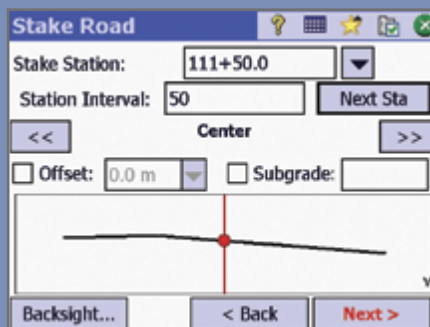
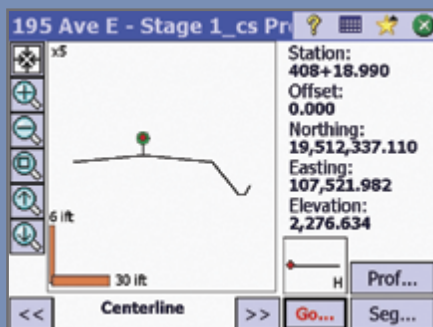
Support staking with DXF files to enable data flow from design software to your field crews, improving efficiency on the road or construction site. Import a DXF file as a background map to select objects like lines and nodes for staking or calculations. Survey Pro also provides control over the layers 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 and then back again quickly and easily.

It's More Than Just Software

When you choose Survey Pro, you get software built on more than 20 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 — send an e-mail to surveypro@spectraprecision.com



Roads

Import road data from Spectra Precision 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.

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.

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 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 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.

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™ 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 GNSS receivers and total stations.

Survey Pro Software Functions

- 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 ¹ , TXT, CSV, LandXML, JobXML, CRS.	●	▲	◆	■	★
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	●	▲	◆	■	★
Multiple point backsight	●	▲	◆	■	★
Traverse/sideshot	●	▲	◆	■	★
Quick shot ⁴	●	▲	◆	■	★
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 ²	●	▲	◆	■	★

STAKEOUT

Quick stake ⁴	●	▲	◆	■	★
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 stake 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

Import from Trimble RXL	●	▲	◆	■	★
Supports Survey Office roads	●	▲	◆	■	★
Complete road data supported	●	▲	◆	■	★
Import from LandXML Roads	●	▲	◆	■	★
Road Stakeout	●	▲	◆	■	★
Alignment	●	▲	◆	■	★
Cross Sections	●	▲	◆	■	★
Any location	●	▲	◆	■	★
Station and Offset	●	▲	◆	■	★
Road Slope Staking	●	▲	◆	■	★
Designate hinges and slopes	●	▲	◆	■	★

ADJUST

Scale/translate/rotate	●	▲	◆	■	★
Traverse adjust	●	▲	◆	■	★
Fix Station Setup	●	▲	◆	■	★

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	●	▲	◆	■	★
Occupancy point	●	▲	◆	■	★
Backsight point	●	▲	◆	■	★
Base location	●	▲	◆	■	★
Rover location	●	▲	◆	■	★
Rod location	●	▲	◆	■	★
Follow me mode	●	▲	◆	■	★

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 ³	●	▲	◆	■	★

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 Precision and Trimble receivers.
4. Only available on the Nivo C, FOCUS 8 and FOCUS 30.

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