

RELEASE NOTES

Survey Pro 5.4 October, 2013

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Introduction

Spectra Precision Survey Pro version 5.4 is a major update with significant functionality improvements. Read the release notes and feature list carefully prior to installing. Many of the new features in this release were already available in Survey Pro, but they have been so greatly enhanced as to constitute a new feature.

New features and changes

New Features

- The Digital Terrain Model (DTM) system has been reworked to provide new functionality, more productivity, and easier access.
 - There is a new DTM menu on the main menu page.
 - All loaded DTM surfaces will be stored in the .survey file and will not need to be reprocessed.
 - Multiple DTM models can be loaded using the DTM Manager.
 - DTM's can be created from individual job layers using selected points, boundaries and break lines.
 - The stake DTM routine has been updated and the map view will show more than just the targeted triangle.
 - Added an exporter to export DTM surfaces to LandXML files.
 - The 3D view has also been updated to include a better position indicator.
- GNSS Satellite Tracking System
 - Added support for multiple GNSS constellations including BeiDou, Galileo, and QZSS.
 - The satellite identifiers have been standardized and are now much more clear. For example, GPS satellites have a prefix of G and the number designator matches the satellite number. GLONASS prefix is R, BeiDou is C, etc.
 - The GNSS Status Sky View display has been updated with colors for each constellation type, quadrant lines, elevation mask line, and is touch sensitive to “uncover” a satellite icon if other icons are on top of it.
 - The GNSS Status Sat Info page has been updated to more clearly display SNR data and now has a filter to more easily view SV's that are of interest.
 - New interface was included to allow the selection of the desired constellations for use in the solution.
- Point Staking
 - The Stake Points and Stake List of Points features have been combined.
 - An individual point and sequence of points can be staked just like before.
 - There is a new Manage Design Points feature that allows points to be tagged as design points for use in the staking routine.
 - Points can be staked by the next design point in the list, or by automatically selecting the next closest point.
 - All design points, and points that have been staked will be marked on the maps. Staked points will show a small flag.
- Electronic Compass Display
 - For data collectors with an electronic compass, Survey Pro will now display a compass arrow on the map screens.

- There is a setting page where the declination can be entered and to calibrate the compass.
- Staking screens can also show a compass heading to assist with orientation.
- Optical Station Setup Streamlined
 - The Set Circle button has been replaced by a Set Backsight button that sets the circle on the instrument as required and then either finish the routine or advances to the backsight check screen depending on settings.
 - Measuring a new backsight point now sets the circle and initiates the measurement with one button tap.
- GNSS Alerts
 - An alert will sound and display when the battery in the ProMark 700 or EPOCH 50 drops below a certain threshold.
 - On the ProMark 700 and EPOCH 50, a warning will be given when the remaining post process data storage space has less than 15 minutes of space left.
 - The RTK fix indicator for all Spectra Precision and other receivers will sound when fix is lost using the same alert system as the other messages resulting in more timely, and less repetitive, alerts.
- The traverse adjust routine now has an automated traverse picker to assist in entering the traverse data.
- Active Map Improvements
 - Construction lines are now drawn on the map to show COGO operations and other calculations that create temporary lines.
 - The customer can now define the zoom extents limits for a job. Once set, when the Zoom Extents button is tapped, the map screen will zoom out to that limit. There is a simple editor to reset the limit.
 - There is now a “follow me” mode for the map where the map will center on a moving rover or robotic target.
- Plane and Vertical Angle Offset
 - Measure two points that define a vertical plane.
 - Measure using angles only to determine horizontal and vertical position on the vertical plane. Multiple measurements can be made resulting in multiple points stored without having to redefine the vertical plane.
 - This routine is most typically used for measuring objects like power lines.
- Fix Station Setup
 - A new guided routine is now available that will aid in correcting a backsight setup that was done on assumed coordinates or using an assumed backsight azimuth. This routine simplifies correcting for this common setup practice and will orient the job to the correct plat basis without having to manually edit the raw data.
- Custom Importers
 - Survey Pro now supports the IXL custom file import standard. Multiple custom importers are currently available, and more can be added by customers or by Spectra Precision as needed. A new release of the Survey Pro software is not required to implement a new importer, just a new IXL definition file. IXL importers work on text based file formats only.
- The Descriptor field has now been changed to a scrolling prompt
 - This feature will make it easier to use features in more places.

- The prompt can be toggled to using features from an FXL file instead of a simple descriptor.
- The selection will be remembered and used in all affected screens.
- As always, both feature and descriptor can be prompted for after the measurement is completed.

Enhancements

- The Dual Prism Offset routine has been expanded to include measurement data records in the .survey file. These records show both of the measurements made and the resultant point record.
- Increased the flexibility of the various curve calculation screens by adding more options including chord bearing.
- The File Export interface has been revamped to be easier to use and to allow for future expansion of the export options.
- Added a date range prompt for various reports including the cut sheet reports.
- The Raw Data Editor can now be used to edit manually entered measurement data.
- The Remote Elevation screen in station setup has been streamlined and now has an easier method of cancelling the operation without abandoning the station setup.
- There is now an option to select a reference location to use in scaling when surveying in 2D mode and using a mapping plane projection.
- Improved the post processing status page interface to make it more clear and useful.
- The Survey Pro T41 data collector (capacitive touch screen) interface has been improved to better support finger selection. Various interface elements have had more space added to make it easier to select individual items and new control types have been added to again assist with easier selections.
- The Resection routine has been enhanced to support auto-repetitions when using a robotic instrument.
- Added CSD mode for the ProMark 220 (this feature is not supported in North America).
- Added a prompt to reconnect to the base server if the network RTK connection is lost while surveying.
- Added a vertical RMS value to the main page for the Resection routine.
- All VRS base points will now automatically be stored to a special layer making base point management easier.
- Added additional search filters in the Raw Data Editor.
- The design point description/feature will now be shown in the remote staking screen replacing static hint text.

General Improvements

- Over 260 important updates, improvements and changes were made in this release. For details on specific items, check with your local dealer.

No Longer Supported

The following receivers are still supported in Survey Pro version 5.4, but will be dropped from the next major update of Survey Pro:

Sokkia Radian IS
Novatel OEM4
Topcon Regency
Topcon Odyssey
Topcon Odyssey E
Topcon Legacy
Topcon Legacy H
Topcon Legacy E
Ashtech Z-Surveyor
Ashtech Z-Xtreme.

Compatibility

Spectra Precision Survey Office version 2.95 is required for use with Survey Pro 5.4 because of the new .survey file format. SPSO version 2.95 implements new file updater routines that will allow for file updates without having to install a new version.

Survey Pro will automatically convert older version 5.x files to version 5.4 when the file is opened. An automatic backup of the older version file will be created when this happens.

ForeSight and ForeSight DXM are supported via the .JOB file and .RAW file export from Survey Pro 5.x. However, neither ForeSight nor ForeSight DXM can import the new .survey file directly from Survey Pro 5.x.

Update procedure

For the update procedure and downloads, refer Spectra Precision Partners or SpectraPrecision.com.

Survey Pro 5.4 enforces the requirement for a valid warranty prior to updates. The Survey Pro 5.4 installation program will use an Internet connection to verify the serial number of the data collector for warranty coverage. If the unit is not covered, you can continue the installation, but the software will only work in demo mode on the data collector until a warranty is purchased. You can also choose to discontinue the installation and keep the fully licensed version that is currently installed on the unit.

If an Internet connection is unavailable at the time of installation, and the software installed on the unit is the current minor update version, the installation will continue.

The installation program will warn you if your warranty has expired and you can choose to continue or cancel the installation at that point.