# **Release Notes**

## **SPECTRA PRECISION SURVEY OFFICE**

Version 3.61



#### **Corporate office:**

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## Welcome to Spectra Precision Survey Office

**Spectra Precision® Survey Office** (SPSO) software is ideal for processing and analyzing satellite and terrestrial survey data recorded in the field. The software provides numerous innovative and unique features, and it is easy to learn and use.

## Installing or updating

For installation or update instructions, see the appropriate bullet below.

#### Notes:

- Spectra Precision Survey Office (SPSO) licensing information is contained in a Sentinel HASP hardware or software key connected to or installed on your computer. If no key has been connected or installed, SPSO allows you to import and view data only. It does not allow you to use any licensed features. To view your license after installation is complete, select View License Manager on the Start Page. For a description of the features available in each licensed configuration, see "Licensed Features" in the online Help.

- After installation, be sure to select Check for Updates on the Start Page to ensure you have the latest updates for Spectra Precision Survey Office.

- New users installing SPSO to use with a single-user license:
  - Before you insert the new Sentinel HASP hardware key you received in your installation package, install SPSO from the SPSO installation package downloaded from the Spectra Precision website.
  - b. Before running SPSO for the first time, insert the new Sentinel HASP hardware key into an available USB port on your computer.

All licensed features will be available when you run SPSO. Your 1-year warranty begins the first time you open the software.

Existing users installing this version of SPSO:

Install SPSO from the installation package downloaded from the Spectra Precision website.

*Important Note!* This version is available to users whose current warranty expiration date is **1 November 2015 or later**. If your warranty expires prior to this date and you proceed with the installation, licensed features will not be available. Contact your distributor to purchase a warranty extension. On the Start page, select View License Manager to verify your warranty expiration date.

## **New features**

Following are the new features included in the various licensing options for this version of Spectra Precision Survey Office. See "Licensed Features" in the online Help to help determine which of these new features are available with your license.

#### Data review and editing

 Multiple record definitions for custom leveling importers - When you use the Custom Importer to create an importer for leveling data, you can specify that the import file includes multiple record types; each record type is identified by a field code in the record. This enables you to import non-uniform level data files from non-Trimble level instruments and reuse importers that you may have created for other level adjustment applications such as STAR\*NET. (See Import Level Data Using a Custom Importer in the help.)

#### Feature coding and attribution

- New Layer Editor Create/edit/delete and import/export layers in SPSO and Feature Definition Manager using the new Layer Manager, which combines all layer editing features in one easy-to-use dialog. This allows you more flexibility in editing and removing layers in Feature Definition Manager as well as provide a more comprehensive view of all of your project layers. (See Manage Layers in the help.)
- Add symbol for list attribute In Feature Definition Manager, add a symbol for a list attribute so that, based on the list attribute specified for a feature, the symbol displays in SPSO after feature processing. That is useful when you have, for example, tree features that can have list attributes (conifer, deciduous, oak, and so on) and you want the symbol to change based on the list attribute. (See the Feature Definition Manager help.)
- Assign layers and labels to points in line and polygon features In Feature Definition Manager, assign layers and labels to points used for line and polygon features, allowing you to control the labeling and layers of points that are coded as part of line and polygon features. (See the Feature Definition Manager help.)
- Feature codes are preserved when feature lines are deleted When you delete a line feature from your project, the line feature codes remain on the associated points and will be used to recreate the line if you reprocess feature codes.

#### Survey computations and COGO

- Streamlined exchange of coordinate systems using EPSG ID Import/export Trimble coordinate systems from/to third-party software (for example, GIS data sources) using EPSG (European Petroleum Survey Group) IDs or OGC WKT (Open Geospatial Consortium Well Known Text) strings. EPSG IDs are stored in the Coordinate System Manager database and are displayed as properties for each coordinate system, datum, ellipsoid, and geoid model.
- Automatic update of Coordinate System Manager Installing SPSO automatically supplies the latest data to the Coordinate System Manager. Previously, it had to be updated by selecting it after installing SPSO.
- New coordinate systems added to Coordinate System Manager The Coordinate System Manager now includes the following new coordinate systems:
  - IA County (Iowa, USA)
  - IN County (Indiana, USA)
  - Trinidad Tobago

- VRS processing mode In SPSO, you can specify that an imported raw GNSS data file be processed as a VRS (Virtual Reference System) reference station. VRS enables RTK corrections over a large geographic area where robust cellular data coverage is available.
- Export Applanix SmartBase files Immediately after importing GNSS points contained in one or more raw data files, you can export all or some of those points to a single Applanix SmartBase file (.asb) that can be uploaded to the Applanix SmartBase Cloud service. The Applanix SmartBase Cloud Service then uses the data to deliver a virtual base station in the center of the surveyed area that covers the entire time duration of all the selected GNSS points. The virtual base data can then be imported into SPSO for post-processing. (See Export Applanix SmartBase Files in the help.)

#### **CAD** and drafting

- **Group layers** Use the Layer Manager command to assign layers into groups that appear in the View Filter Manager. (See Manage Layer Groups in the help.)
- Enhancements to CAD grips For polyline, linestring, polygon, and line entities, you can move the entire entity by selecting an endpoint grip and moving it with the Ctrl key pressed. For polyline entities, you can double-click on a segment grip and change the segment type from a line to an arc, and vice versa. (See Move and Modify CAD Objects Using Grips in the help.)
- Benefit from the latest Teigha® version (support for CAD data) Teigha 4.0.1 is now supported:
  - Better import of .dgn files
  - Better rendering of .dwg and .dgn files
  - Implementation of associative arrays and recalculation of associative dimensions

#### Usability and performance

 Set a reminder to save your project - Use the Save Project Reminder setting in Options > Project Management to set a timed reminder that prompts you to save your project. When enabled, the Save Project dialog appears at an interval you specify. (See Set a Reminder to Save Your Project in the help.)

## **Resolved issues**

Following are issues that have been fixed in this version of SPSO:

 If your project included a closed line feature with offsets, the offset lines did not connect correctly at the end/start point.

## **Known issues**

Following are known issues in this version of SPSO:

- A rendering issue may cause an irregular dark pattern to display in a top view of a point cloud created from a surface.
- The mouse cursor leaves a "trail" image when it is moved in the Plan View. If you pan
  or zoom out, the trail no longer displays.

## **Miscellaneous notes**

- OpenCL Runtime is a graphics accelerator driver required when SPSO is performing automatic tie point matching or dense point cloud creation. If the driver is not installed, an error message is displayed indicating OpenCL Runtime cannot be found. In this case, you must download OpenCL Runtime from <a href="https://software.intel.com/enus/articles/opencl-drivers#phiwin">https://software.intel.com/enus/articles/opencl-drivers#phiwin</a> and install it on your computer using the instructions provided.
- Know issue with HASP license key and Intel C602 chipset The HASP license key required to run SPSO is not compatible with the Intel C602 chipset used in some server/workstation environments. The use of the HASP license key in combination with the C602 chipset will cause the application to crash.
- VCE compatibility You cannot open a VCE project file created with this new version of SPSO in an older version of SPSO.
- Tutorials PDF If you click the Tutorials link on the Start page and receive a
  message indicating the required Adobe Flash Player is not installed on your
  computer, the link to the installation page contained in the message may not work
  correctly. Go to <a href="http://helpx.adobe.com/acrobat/kb/reader-acrobat-flash-player-download.html">http://helpx.adobe.com/acrobat/kb/reader-acrobat-flash-playerdownload.html</a> to download and install the Flash Player.
- Windows 10 users When you create an HTML-based report, the links in the report to objects in SPSO do not work.
- Windows 8 users Some components in SPSO require Microsoft .NET Framework 3.5 to operate. If the .NET Framework 3.5 is not installed, you are prompted to install it when you install SPSO. If your computer is connected to a domain that does not allow you to directly connect to Windows Updates on the Internet to enable and install .NET 3.5, you may need to change your group policy settings. See your system administrator for assistance.

For more information, see http://technet.microsoft.com/en-us/library/dn482065.aspx

- Windows XP users Some components in SPSO require Microsoft .NET Framework 4.5, which is not supported by the Windows XP operating system. To run this version of SPSO, you must install a different operating system. See "System requirements" for complete operating system requirements.
- TabletSync transfers If you use TabletSync to transfer large files (for example, panoramas) into SPSO, it can take a long time for the upload to complete. As an alternative, you can shorten the transfer time by copying the files from the tablet onto a USB memory stick and copying the files from the stick into SPSO.
- 3D PDF The Create 3D PDF command causes texturized surfaces (that is, a surface to which a texture image has been added) to display as black in the PDF Reader when the surface shading is set to something other than "by elevation." To avoid this problem, select "Shading: by elevation" in the surface Properties pane for any texturized surface before creating a 3D PDF.

- Known issue with KMZ panoramas KMZ (.kmz) panorama files created in SPSO do not display in Google Earth version 7.0 and later. For them to display correctly, it is recommended that you use an earlier version of Google Earth. Or, use the option to generate Google Earth KML Powered by InSphere.
- Proxy server settings If you receive an error when trying to access an external server to process data (for example, export KML graphic files to Trimble InSphere for use in panoramas displayed in Google Earth), you may need to specify a proxy server for your LAN using Internet Properties > Connections > LAN settings > Proxy Server.

## System requirements

Operating system:	Microsoft Windows® 10 (64-bit version)
	Microsoft Windows 8 (64-bit version)
	Microsoft Windows 7 (64-bit version with Service Pack 1)
Processor:	Dual-core 1.80 GHz or better recommended
Random access memory (RAM):	2 GB or more recommended
Hard disk space available:	5 GB or more recommended
Graphics:	DirectX 9 (or higher) compatible graphics card with 512 MB memory or more
	<i>Note:</i> To display point cloud data (if applicable), your graphics card must support OpenGL version 3.2 or newer.
Monitor:	1280 x 1024 or higher resolution with 256 or more colors (at 96 DPI)
I/O Ports:	USB 2.0 port