



# TerraSync

## SOFTWARE

### SOFTWARE FOR HIGHLY PRODUCTIVE FIELD GIS DATA COLLECTION AND MAINTENANCE

Trimble® TerraSync™ software is designed for fast and efficient field GIS data collection and maintenance. Integrating all the ways you collect data—with a GNSS handheld computer, laser rangefinder, or centimeter-grade equipment—it's a powerful system for the collection of high quality feature and position data for GIS update and maintenance.

#### Effortless and Intelligent Field Data Collection

Regardless of the field application and the complexity of the GIS data to be collected, Trimble TerraSync software provides simple and efficient workflows to capture high quality data quickly and easily.

Working in Trimble QuickPoint™ data collection mode GIS point features can be collected with a single press of a button, a tap of the screen, or point-and-shoot operation of a Trimble laser rangefinder. Simple to learn and use, QuickPoint mode saves field workers time collecting position and attribute information for features of the same type.

Trimble TerraSync software also makes it easy to incorporate photo capture into the data collection workflow using a Trimble handheld with integrated camera. Field workers can take and preview photos, automatically attaching them to the current feature.

Trimble TerraSync software also includes the ability to use data dictionaries previously created in Trimble GPS Pathfinder® Office software or Trimble Positions™ Desktop add-in, based on the enterprise GIS. A data dictionary allows field workers to create features and assign attribute values that not only comply with the GIS data structure, but also preserve data integrity. Data capture forms can also dynamically adapt to previously entered

attribute values for maximum data collection efficiency with a minimum of training.

#### Powerful Simplicity

To improve the field worker experience, the TerraSync user interface can be customized and simplified, removing functionality to ensure maximum field productivity and eliminate potential configuration errors, while minimizing the need for specialist training. TerraSync Studio utility within GPS Pathfinder Office software provides a rich environment to develop and test customized TerraSync user interfaces. The result is that field workers see the overview of a data form more clearly, avoiding confusion and guiding them through only required form sections, speeding up form completion without sacrificing accuracy.

#### Smart Data Maintenance

Trimble TerraSync software provides additional benefits for field workers involved in data maintenance activities. Assets imported from a GIS can be sorted and filtered based on the order they are to be visited for efficient route planning. Assets can be viewed as a simple list, or on a color-coded map with an aerial photo or satellite image in the background for reference.

#### Quality Control Made Easy

With Trimble TerraSync software, field workers can collect data and achieve the required level of accuracy, either in real time or after postprocessing. Accuracy-based logging settings specify the GNSS data quality that the enterprise GIS demands and TerraSync software does the rest.

TerraSync software integrates seamlessly with a range of Trimble GNSS receivers to deliver the required accuracy level to meet company or regulatory requirements. The software supports postprocessing the data back in the office or using real-time differential GNSS corrections to improve data quality and accuracy. TerraSync software can also be used with supported Trimble GNSS receivers to collect Trimble H-Star™ data for extra precision.

## Key Features

- ▶ Efficient field GIS data collection and maintenance
- ▶ One-click data capture with Trimble QuickPoint data collection mode
- ▶ Customizable user interface simplifies field operation
- ▶ Supports GNSS handheld computer, laser rangefinder, camera, or centimeter-grade equipment data collection methods



## FEATURES AND OPTIONS

### Key features

- Efficient field data collection of features, positions, and attribute data
- Easy, fast one-click data capture working in QuickPoint data collection mode
- Configurable user interface for simple, efficient workflows and data entry
- Conditional attributes for dynamically adapting data capture forms
- Industry-leading GNSS receiver configuration and control
- Map display support for multiple raster and vector background maps
- Quick navigation to features or waypoints
- Multimedia support for attributes such as voice and image files
- Optimized for Trimble handhelds with integrated digital cameras
- Read/write support for Esri Shapefiles
- Customizable splash screen

### GNSS accuracy

- Real-time differential correction including Trimble RTX™ correction services (available sources depend on GNSS receiver and base station used)
- Record GPS and GLONASS data for subsequent postprocessing
- Achieve decimeter (10 cm / 4 inch) accuracy using real-time or postprocessed H-Star technology (dependent on H-Star-capable receiver and antenna combination used)
- Supports logging of DeltaPhase data for optimal code accuracy after postprocessing
- Support for collection of RTK data with Trimble 5800 and Trimble R10/R8/R6/R4 GNSS receivers
- Achieve real-time or postprocessed centimeter-level accuracy using a Trimble Geo 7X Centimeter edition handheld or an R2 GNSS receiver, and a dual frequency correction source<sup>1</sup>

### Software editions

- Trimble TerraSync Standard edition for data collection
- Trimble TerraSync Professional edition for data collection and maintenance
- Trimble TerraSync Centimeter edition for data collection with a Trimble centimeter-grade receiver<sup>1</sup>

For a product comparison of the Standard, Professional, and Centimeter editions visit: [www.trimble.com/mappingGIS/product-comparison](http://www.trimble.com/mappingGIS/product-comparison)

### Supported GNSS receivers

- Trimble Pro 6H receiver
- Trimble Pro 6T receiver
- Trimble GPS Pathfinder ProXRT receiver
- Trimble R10 GNSS receiver (Model 1)<sup>2,3</sup>
- Trimble R8 GNSS receiver (Models 2, 3 and 4)<sup>2,3</sup>
- Trimble R6 GNSS receiver (Models 1, 2 and 4)<sup>2,3,4</sup>
- Trimble R4 GNSS receiver (Model 3)<sup>2,3,4</sup>
- Trimble R2 GNSS receiver
- Trimble R1 GNSS receiver
- Trimble 5800 receiver (Model 2)<sup>2,3,4</sup>

### Supported handheld computers with integrated GNSS

- Trimble GeoExplorer® family
- Trimble Juno® series
- Trimble Nomad® 1050 series
- Trimble Nomad G series
- Trimble Yuma™ 2 rugged tablet computer

### Available languages

- Chinese (Simplified)
- English
- French
- Russian
- German
- Italian
- Japanese
- Korean
- Portuguese
- Spanish

## RECOMMENDED PLATFORM

### Windows Mobile field computer

Operating system	Windows Mobile® version 5.0 or 6.x, Windows Embedded Handheld 6.x
Processor type	ARM, XScale, or OMAP
Processor speed	200 MHz or faster
Memory	62 MB RAM at least 8 MB free memory
Input/output	Serial cable and RS-232 serial port (or appropriate adaptor) or Bluetooth® technology for connection to GPS Pathfinder Pro series receiver
Display	Color touch screen (240 × 320 pixels or larger) Transflective screen (or other screen suitable for outdoor viewing)

### Windows field computer

Operating system:	Windows® 7 / 8 / 10
	Home Premium, Professional, Ultimate Editions SP 1 (32- or 64-bit)
Processor speed	500 MHz or faster
Memory	64 MB RAM at least 8 MB free memory
Input/output	Serial cable and RS-232 serial port (or appropriate adaptor) or Bluetooth technology for connection to GPS Pathfinder Pro series receiver

## SUPPORTED BACKGROUND FILE FORMATS

### Vector formats

- Trimble SSF format (.ssf, .cor, .imp)
- Esri Shapefiles (.shp)

### Raster (image) formats

- JPEG (.jpg)
- JPEG 2000 (.jp2, .j2c)
- Enhanced Compression Wavelet (.ecw)
- MrSID (.sid)
- TIFF (.tif)
- Windows bitmap (.bmp)

## GNSS POSTPROCESSING OPTIONS

- Trimble GPS Pathfinder Office software
- Trimble Positions Desktop add-in<sup>5</sup>
- Trimble GPS Analyst™ extension for Esri ArcGIS for Desktop software<sup>6</sup>

1 Trimble TerraSync Centimeter edition software only. Supports real-time or postprocessed data collection with the Trimble Geo7X Centimeter edition or Trimble R2 RTK rover. Supports real-time data collection only with centimeter-grade receivers.  
 2 Trimble TerraSync Centimeter edition software only.  
 3 Trimble centimeter-grade receivers must be running firmware version 4 or later. For real-time data collection only.  
 4 Requires the Advanced Data Controller option.  
 5 Esri ArcGIS for Desktop 10.1 and later.  
 6 Esri ArcGIS for Desktop software version 10 or earlier only.

Specifications subject to change without notice.



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