



## KEY FEATURES

Software designed for efficient field GIS data collection and maintenance

Intelligent data capture based on conditional attribute collection requirements

Customizable user interface data to simplify the field worker experience

Robust support for vector or raster map backgrounds for verification of field data

Seamless GNSS control in the field for high quality position data

Runs on a wide range of Trimble handheld and tablet field computers

H-Star data collection for high accuracy with compatible Trimble receivers and handhelds

Real-time and postprocessed GLONASS support with compatible Trimble receivers and handhelds

Data collection for Trimble DeltaPhase processing provides improved postprocessed accuracy

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

The Trimble® TerraSync™ software is designed for fast and efficient field GIS data collection and maintenance. Paired with a supported Trimble GNSS receiver and field computer, 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 data collection workflow required and the complexity of the GIS data to be collected, the TerraSync software captures high quality data quickly and easily.

The TerraSync software makes the field data collection workflow seamless by including intelligent features such as map-centric operation, graphical status display, and the ability to record a position offset at the field worker's fingertips. The TerraSync software also makes it easy to incorporate photo capture into the data collection workflow using a Trimble handheld with an integrated camera or the Trimble TrimPix™ Pro system with any supported camera. Field workers can take and preview photos, automatically attaching them to the current feature, and stamping each photo with the time, date, and location at which it was taken.

The TerraSync software also includes the ability to use a data dictionary previously created in the Trimble GPS Pathfinder® Office software, 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 simplified, removing functionality to ensure maximum field productivity and eliminate potential configuration errors. The TerraSync Studio utility within the 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.

As part of the customizable user interface, intuitive data entry controls such as radio buttons and check boxes can be used to aid faster data entry, improved data accuracy, and more efficient field workflows. Data entry based on

pre-loaded image galleries allows features to be uniquely identified by direct visual comparison to a reference image, minimizing the need for specialist training.

### Smart data maintenance

The 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. Fast raster map background redraw makes it possible to work with much larger images in TerraSync, resulting in increased productivity and creating a more dynamic field worker experience.

To revisit an asset, a field worker can select the corresponding feature from the list or map, and the intuitive graphical GPS navigation tools will guide them to the asset's precise location. Once a feature or waypoint is reached, the TerraSync software marks it as visited and if an existing feature is edited, the TerraSync software marks it as updated.

### Quality control made easy

With the 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 the TerraSync software does the rest. To ensure that time in the field will be productive, field workers can use the Plan section to view a graphical prediction of the GPS satellite constellation and identify the best times for data collection.

The 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. The TerraSync software can also be used with supported Trimble GNSS receivers to collect H-Star™ data for extra precision. Alternatively, optimal GNSS code processing accuracy can be achieved with a Trimble DeltaPhase™ technology-capable receiver.

Simple, efficient, and productive in the field—the TerraSync software is the clear choice for collecting and maintaining high quality GIS data.



## FEATURES AND OPTIONS

### Key features

- Efficient field data collection of features, positions, and attribute data
- 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
- Mission planning to find the best time to collect GPS data
- 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 (available sources depend on GNSS receiver and base station used)
- Record GPS and GLONASS data for subsequent postprocessing
- Achieve up to 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 R8 GNSS receiver

### Software editions

- TerraSync Standard edition for data collection
- TerraSync Professional edition for data collection and maintenance

For a product comparison of the Standard and Professional editions visit: [www.trimble.com/mgis\\_prodcomp.shtml](http://www.trimble.com/mgis_prodcomp.shtml)

### Supported GNSS receivers

- GPS Pathfinder ProXT receiver
- GPS Pathfinder ProXH receiver
- GPS Pathfinder ProXRT receiver
- Trimble 5800 receiver
- Trimble R8 GNSS receiver (Models 2 and 3)

### Supported field computers with integrated GNSS

- GeoXH handheld
- GeoXT handheld
- GeoXM handheld
- Juno® ST handheld
- Juno SB handheld
- Juno SC handheld
- Juno SD handheld
- Trimble Nomad® G series handheld
- Trimble Recon® GPS XC edition
- Trimble Yuma® rugged tablet computer

### Supported field computers

- Trimble Ranger™ handheld
- Trimble Recon handheld

### 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 software or Windows Mobile version 6.0/6.1

Processor type . . . . . ARM or XScale

Processor speed . . . . . 200 MHz or faster

Memory . . . . . 32 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) Reflective screen (or other screen suitable for outdoor viewing)

### Windows field computer

Operating system . . . . . Windows® XP (Home, Professional, or Tablet PC Edition) (32- or 64-bit versions) or Windows Vista® or Windows 7 (Home, Business, or Ultimate editions) (32- or 64-bit versions)

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

- GPS Pathfinder Office software
- Trimble GPS Analyst™ extension for Esri ArcGIS Desktop software

*Specifications subject to change without notice.*

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YOUR LOCAL TRIMBLE OFFICE OR REPRESENTATIVE

### NORTH & SOUTH AMERICA

Trimble Navigation Limited  
10355 Westmoor Drive  
Suite #100  
Westminster, CO 80021  
USA  
+1-720-587-4574 Phone  
+1-720-587-4878 Fax

### EUROPE & AFRICA

Trimble Germany GmbH  
Am Prime Parc 11  
65479 Raunheim  
GERMANY  
+49-6142-2100-0 Phone  
+49-6142-2100-550 Fax

### ASIA-PACIFIC & MIDDLE EAST

Trimble Navigation  
Singapore PTE Limited  
80 Marine Parade Road  
#22-06 Parkway Parade  
Singapore, 449269  
SINGAPORE  
+65-6348-2212 Phone  
+65-6348-2232 Fax

