DATASHEET

Trimble GPS Analyst extension for ESRI ArcGIS software

KEY FEATURES

Optimize your field-to-office workflow

Work with GPS data directly in your geodatabase

Differentially correct to improve GPS accuracy

H-Star processing for subfoot accuracy with the GPS Pathfinder ProXH receiver

Store detailed information about the quality of your GPS data

Extend and customize with ArcObjects

STREAMLINED GPS DATA PROCESSING INSIDE ARCGIS

Take a giant leap forward in productivity and improve your data quality with the Trimble® GPS Analyst™ extension for ESRI ArcGIS software. The GPS Analyst extension optimizes your field-to-office workflow by allowing you to work directly with GPS data inside your personal geodatabase. And because the extension comes with Trimble's proven differential correction engines, you can be sure you have the best quality GPS data.

Get the best possible accuracy

The GPS Analyst extension is the only software that allows you to differentially correct your GPS data directly inside ArcGIS Desktop software. Depending on the environment and your GPS receiver, differential correction can improve the accuracy of your GPS positions from 10 meters[1] to submeter and better. With Trimble's new H-Star™ technology you can achieve accuracies of subfoot (30 cm) and even 8 inches (20 cm) with the GPS Pathfinder® ProXH™ receiver.

The GPS Analyst extension's powerful Integrity Index grading system provides a list of monitored base data providers from around the world—helping you select the best quality base data to use when differentially correcting your data.

Have confidence in your data

You use your GIS every day to make critical decisions, so you need to know that you can trust your data.

The GPS Analyst extension allows you to specify the GPS accuracy required for each feature class. Once you have processed your GPS data, the extension quickly checks that features match your criteria, and helps you to fix or flag any exceptions.

Plus, the GPS Analyst extension stores detailed information about the source and quality of each and every GPS position in the geodatabase, and provides powerful tools for querying and analyzing this information.

Maximize your productivity

Say goodbye to unnecessary file conversions—with the GPS Analyst extension you can effortlessly bring GPS data straight from the field into the geodatabase. The extension offers a seamless workflow for ESRI ArcPad software with the Trimble GPScorrect™ extension for ESRI ArcPad software. Check data out; use, verify, and update the data in the field using ArcPad and the GPScorrect extension; and then check updated data back in. There are no extra steps or complicated procedures to follow.

You can even work directly with data from Trimble's TerraSync™ software, for a proven data collection and maintenance solution.

Now, all your GPS processing needs are met within ArcGIS. It's the GIS environment you know—so expect to become more productive immediately, and with only minimal training.

Open up to the possibilities

As an open extension to ArcObjects, the GPS Analyst extension can easily be extended and adapted to match your data processing needs. You can even take ArcGIS Desktop software into the field on a laptop computer or Tablet PC, and capture GPS data directly into the geodatabase with the GPS Analyst extension. Or, if you have your own field solution, write a plug-in that takes advantage of GPS Analyst extension's versatile data processing tools.

Let the GPS Analyst extension for ArcGIS improve your data accuracy and your field-to-office workflow by making GPS data an integral part of your GIS.

1 Typical autonomous GPS accuracy.

◈Trimble

FEATURES AND OPTIONS

Work within the GIS
- Collect, view, and edit GPS data inside ESRI ArcGIS software
- Improve productivity by eliminating extra file conversions and processing steps outside the GIS
- Quickly and easily validate position accuracy against requirements set in the feature class

GPS accuracy
- Improve GPS position accuracy with differential correction of data from supported Trimble GPS receivers
- Achieve subfoot (30 cm) accuracy by H-Star processing data from the GPS Pathfinder ProXH receiver
- Store complete QA/QC information for GPS data

Extensible
- Extend and tailor core GPS Analyst extension functionality
- Develop plug-ins to support other GPS receivers
- Customize tools and forms to suit your requirements

Required software
GPS Analyst extension for ArcGIS requires ArcView, ArcEditor, or ArcInfo, version 8.3 (SP3), 9.0 (SP1)

Required hardware
System requirements are determined by the ArcGIS product version and platform configuration you are using. Please refer to the applicable ArcGIS Desktop specifications at www.esri.com/arcgis. In addition, GPS Analyst extension for ArcGIS requires:

Free disk space . . . . 25 MB
Input/output. . . . . RS-232 serial port and USB port

Available languages
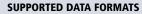- English

Field software options
- ESRI ArcGIS software with Trimble GPS Analyst extension
- TerraSync software
- ESRI ArcPad software with Trimble GPScorrect extension
- Applications developed using GPS Analyst extension's COM object interface
- Applications developed using GPS Pathfinder Tools Software Development Kit (SDK)

Only data collected with supported Trimble receivers can be differentially corrected with GPS Analyst extension.

GPS RECEIVERS AND ACCURACY (HRMS)[1] SPECIFICATIONS

Receiver/Handheld	Real-time differential	Postprocessed differential
GPS Pathfinder ProXT™	submeter	submeter
GPS Pathfinder ProXH™	submeter	30 cm[2]
GPS Pathfinder Pro XRS	submeter	50 cm
GPS Pathfinder Pocket	2–5 m	2–5 m
GeoXT™	submeter	submeter
GeoXM™	2–5 m	2–5 m
Trimble Recon™ GPS Pocket edition	2–5 m	2–5 m

SUPPORTED DATA FORMATS

Data storage format
- ArcGIS personal geodatabase (Microsoft® Access MDB)

Check out/check in formats
- ESRI Shapefiles from ArcPad with Trimble SSF files from GPScorrect extension

Import formats
- ESRI Shapefiles from ArcPad with Trimble SSF files from GPScorrect extension
- Trimble SSF files

Export formats
- Trimble SSF files

SUPPORTED BASE FILE AND COMPRESSION FORMATS

Base file formats
- Hatanaka (Compressed RINEX)
- RINEX
- Trimble DAT format
- Trimble SSF format

Compression types
- GZip (.gz)
- Self-extracting executable (.exe)
- Zip (.zip)

GPS RECEIVERS SUPPORTED FOR DATA COLLECTION
WITH GPS ANALYST EXTENSION

Trimble GPS receivers
By using a Trimble GPS receiver you have complete GPS status information, configuration control, real-time differential correction, and the ability to perform postprocessed differential correction. The following Trimble GPS receivers are supported:
- GPS Pathfinder ProXT receiver
- GPS Pathfinder ProXH receiver
- GPS Pathfinder Pro XRS receiver
- GPS Pathfinder Pocket receiver
- GeoXT handheld
- GeoXM handheld
- Trimble Recon GPS Pocket edition

NMEA-compliant GPS receivers
GPS Analyst extension also supports GPS data collection using a NMEA-compliant GPS receiver. Any NMEA receiver that meets the following requirements is supported:
- Outputs both the GPGSA and GPGSV sentences
- Outputs one of the following sentences: GPGGA, GPGLL, GPRMC
- Outputs positions in the WGS-84 datum

GPS data from NMEA receivers cannot be differentially corrected. The accuracy obtained with an NMEA GPS receiver depends on the model of receiver and the method the receiver uses to calculate the GPS position. For information about real-time correction capabilities and accuracy specifications, refer to the documentation for the NMEA GPS receiver.

1 Horizontal Root Mean Squared accuracy. Requires data to be collected with minimum of 4 satellites, maximum PDOP of 6, minimum SNR of 39 dBHz, minimum elevation of 15 degrees, and reasonable multipath conditions. Ionospheric conditions, multipath signals or obstruction of the sky by buildings or heavy tree canopy may degrade precision by interfering with signal reception. Accuracy varies with proximity to base station by +1 ppm for postprocessing and real-time.
2 Requires H-Star data to be collected for up to 2 minutes. Requires a minimum of 3 good quality dual frequency reference stations within 200 km.

Specifications subject to change without notice.

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