DATASHEET

Trimble GPS Analyst extension for ESRI ArcGIS Desktop 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 data collection for high accuracy with the GPS Pathfinder ProXRT and ProXH receivers, or the GeoXH handheld

Supports GLONASS postprocessing for data collected with a GLONASS option-enabled GPS Pathfinder ProXRT 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 Desktop 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 a package of powerful GNSS postprocessing tools, incorporating the new Trimble DeltaPhase™ differential correction technology, you can be sure you have GPS data that is consistent, reliable, and accurate.

Get the best possible accuracy

The GPS Analyst extension allows you to differentially correct your GPS data directly inside ArcGIS Desktop software. Depending on the environment and your GPS receiver, postprocessing gives significant improvements on your autonomous accuracy all the way down to decimeter (10 cm / 4 inch) level.

Using Trimble's H-Star™ technology you can achieve decimeter accuracy with the GPS Pathfinder® ProXH and ProXRT receivers and the GeoXH™ 2008 series handheld. Alternatively with a GeoXT™ or Juno™ series handheld, or a ProXT™ receiver, you can achieve optimal GPS code processing accuracy with the new Trimble DeltaPhase technology.

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 an alternative data collection and maintenance solution.

Now, all your GPS processing needs are met within ArcGIS Desktop. 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. 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 Desktop improve your data accuracy and your field-to-office workflow by making GPS data an integral part of your GIS.

Trimble

Trimble GPS Analyst extension for ESRI ArcGIS Desktop software

FEATURES AND OPTIONS

Work within the GIS

- Collect, view, and edit GPS data inside ESRI ArcGIS Desktop 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, including GLONASS postprocessing
- 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 Desktop software requires ArcView, ArcEditor, or ArcInfo, version 9.0 (SP3), 9.1 (SP2), 9.2, 9.3, or 9.3.1.

Required hardware

System requirements are determined by the ArcGIS Desktop 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 Desktop requires:

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

Available languages

- English

Field software options

- ESRI ArcGIS Desktop 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

Typical autonomous accuracy for all GPS receivers is around 10 meters. The following table shows differentially corrected accuracy specifications for supported receivers:

Receiver/Handheld	Postprocessed
GPS Pathfinder ProXRT receiver	decimeter[2]
GPS Pathfinder ProXH™ receiver	50 cm / decimeter[2]
GPS Pathfinder ProXT receiver	50 cm
GeoXH handheld	50 cm / decimeter[2]
GeoXT handheld	50 cm
GeoXM™ handheld	1–3 m
Juno series handheld	1–3 m
Trimble Nomad® G series handheld	2–5 m
GPS Pathfinder XC receiver	2–5 m
Trimble Recon® GPS XC edition	2–5 m
Trimble Yuma™ rugged tablet computer	2–5 m

Refer to relevant datasheet for full details.

SUPPORTED DATA FORMATS

Data storage format

- ArcGIS personal geodatabase (Microsoft® Access MDB only)

Check out/check in formats

- ESRI Shapefiles from ArcPad with Trimble SSF files from GPScorrect extension[3]
- ESRI AXF files from ArcPad with Trimble SSF files from GPScorrect extension[4]

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 BY THE GPS ANALYST EXTENSION FIELD TOOLS

Trimble GPS receivers

Version 2.20 of the GPS Analyst Extension continues to support direct connection to the following Trimble GPS receivers for in-field data collection. This capability is not supported for newer GPS receivers:

- GPS Pathfinder ProXH receiver
- GPS Pathfinder ProXT receiver

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. Specifications apply except in conditions where most GPS signals are affected by trees, or buildings, or other objects. The Trimble Nomad G series and GPS Pathfinder XB or XC receivers must be held horizontally; the Juno SB and SC handhelds must be held vertically. Postprocessed code accuracy varies with proximity to base station by +1 ppm.

2 The following factors increase the availability of 10 cm accuracy after H-Star postprocessing: longer elapsed time tracking uninterrupted L1/L2 carrier phase data, use of the optional external Tornado™ antenna, tracking of more satellites with L2 measurements, shorter distance to the base station(s), and use of more (than one) base stations for postprocessing. H-Star specified accuracy is typically achieved within 2 minutes and degrades at +1 ppm as the distance from the base station increases. The ProXH receiver will only achieve decimeter postprocessed accuracy with the optional Tornado external antenna.

3 ESRI ArcPad software version 6.0.3, 7.0, and 7.0.1 only.

4 ESRI ArcPad software version 7.1 and 8, and ESRI ArcGIS Desktop software version 9.2, 9.3, and 9.3.1 only.

Specifications subject to change without notice.

© 2004–2009, Trimble Navigation Limited. All rights reserved. Trimble, the Globe & Triangle logo, GeoExplorer, Nomad, GPS Pathfinder, and Recon are trademarks of Trimble Navigation Limited, registered in the United States and in other countries. DeltaPhase, GPS Analyst, GPScorrect, GeoXH, GeoXM, GeoXT, H-Star, Juno, ProXH, ProXT, TerraSync, Tornado, and Yuma are trademarks of Trimble Navigation Limited. Microsoft is a registered trademark of Microsoft Corporation in the United States and/or other countries. All other trademarks are the property of their respective owners.
PN 0220501-011V (12/09)

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

Trimble

www.trimble.com
store.trimble.com