Accuracy Achieved with Post-Processing DGPS

DGPS Solution (Code post-processed)

Achieve sub-meter accuracy^{*1} by continuously tracking satellites for a few minutes at each point.

With tracking satellites for a few minutes Sub-meter*2

Best Solution (Carrier post-processed)

Achieve higher accuracy^{*1} by continuously tracking satellites for 30 minutes or longer.

- With tracking satellites for 20 minutes
- With tracking satellites for 30 minutes
- Sub-foot*2 15mm + 1.0ppm*2
- *1 Position accuracy may vary according to environmental conditions, observation situations and satellite positions.
- *2 Horizontal, 1 sigma

Reference station data required for post-processing DGPS can be obtained by observing a known point or by downloading reference station data. The results of post-processing DPGS are saved in a separate layer from the real-time feature data allowing you to compare the results.

The results from each post-processing are displayed in a new layer, allowing you to change parameters and reference station files to perform post-processing DGPS with different conditions to produce optimal results.

Supported Receivers SOKKIA Differential GPS Receivers GIR1450 and GIR1600

Spectrum Field Recommendations (ArcPad compliant)

	Software	ESRI ArcPad ver. 7.01 or later, Microsoft ActiveSync ver. 4.2 or later (required)
	OS	Windows Mobile 2003, Windows Mobile 2003 SE, Windows Mobile 5.0
	Memory	More than 64MB
	Disk space	More than 3MB (Required for installation)

Spectrum Office Recommendations (ArcGIS compliant)

Software	ArcGIS ver. 9.1 or later (required)
OS	Windows 2000 / XP
CPU	1GHz or higher
Memory	1GB or more
Disk space	More than 10MB (Required for installation)
Display	1024x768 or higher, 256 color or higher
Other	CD-ROM drive



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Continuous satellite tracking time is displayed on the screen. This allows you to check the required tracking time remaining for post-processing DGPS while in the field.

SOKKIA

Spectrum Field ESRI ArcPad Extension **Spectrum Office** ESRI ArcGIS Desktop Extension



Get More with SOKKIA DGPS

Spectrum Field

ESRI ArcPad Extension



Get More with SOKKIA DGPS with Mobile GIS ArcPad Support

Spectrum Field extension software gives you control of SOKKIA's GIR series DGPS receivers and saves raw (L1) data for use with ESRI® GIS data collection software ArcPad®.

Complete Control

Spectrum Field for ArcPad fully configures the settings of SOKKIA's GIR1450 and GIR1600 DGPS receivers*.

Display receiver status, positioning information, skyplot, satellite list and

receiver version information.

Select between SBAS (WAAS, EGNOS, MSAS) or MF beacon DGPS correction information for fast, real-time DGPS positioning.

*Refer to the GIR1450 and GIR1600 product brochures for more details.





Acquire Feature Data

You don't need to learn any new steps when collecting GIS data. Collect point, line and polygon feature data in the same way as with the original ArcPad.

Record Raw GPS (L1) Data for Post-Processing

Spectrum Field automatically saves raw GPS (L1) data in a log file using GIR DGPS receivers. Use Spectrum Office to perform post-processing DGPS to correct position data to sub-foot or higher accuracy*1.

Raw GPS (L1) data*² is automatically saved when observation starts - no extra steps.

*1 Position accuracy may vary according to environmental conditions, observation situations and satellite positions. *2 An ArcPad project checked out from a Geodatabase created in Spectrum Office must be used to record GPS raw data.

Spectrum Office ESRI ArcGIS Desktop Extension

Increase Accuracy and Productivity with Desktop ArcGIS Support

Spectrum Office extension software links raw data collected in the field and performs post-processing DGPS using ESRI office software ArcGIS[®].

High Accuracy Post-Processing **Differential Corrections**

Achieve high-accuracy positioning in areas where real-time differential corrections are not available by performing post-processing DGPS using both raw GPS (L1) data saved with Spectrum Field and base station data files.

Integrate Existing Databases

Spectrum Office can integrate attributes from existing ArcGIS databases. This means that you can continue to use existing feature data and feature classes. Integrate multiple data formats including geodatabase and shape files.

Import Feature Data Collected in the Field

ArcGIS can easily import and display feature data collected with Spectrum Field for ArcPad. Spectrum Office automatically detects Spectrum Field data via ActiveSync or removable disk and integrates it into a geodatabase.

Link Feature Data and Digital Pictures

Automatically link Spectrum Field feature data and digital pictures. Pictures linked with feature data can be displayed in ArcGIS with feature attributes and position information.





