

# GeoRoVer Tools for ArcGIS

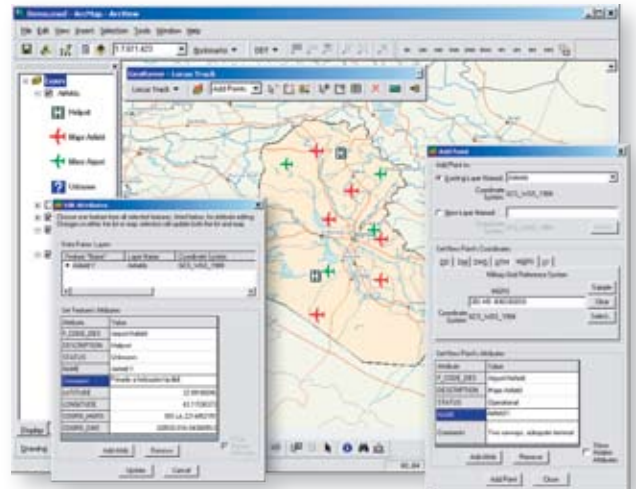


The Digital Data Tracker extension downloads GPS receiver track logs and waypoints as layers in ArcGIS Desktop. Using the downloaded GPS information, data collected in the field (digital images, video clips, digital audio, etc.) can be automatically georeferenced and plotted in the ArcGIS Desktop display. Click on the points to access the data. Hours of field data collection can be processed in seconds.

## Overview

GeoRoVer® Tools for ArcGIS is a powerful suite of extensions developed by SAIC for ESRI ArcGIS 8.x/9.x Desktop. GeoRoVer Tools for ArcGIS streamlines the process of creating, importing, editing, and sharing GIS data while empowering the field data collector to perform real-time or postcollection processing of data from GPS receivers and a variety of data collection devices (digital cameras, voice recorders, and more). In addition to importing text files, spreadsheets, and databases, these tools create interactive Web pages, spreadsheets, and slide shows of your GIS and collected field data—enabling sharing of information with those who do not have GIS. GeoRoVer Tools for ArcGIS consists of three extensions:

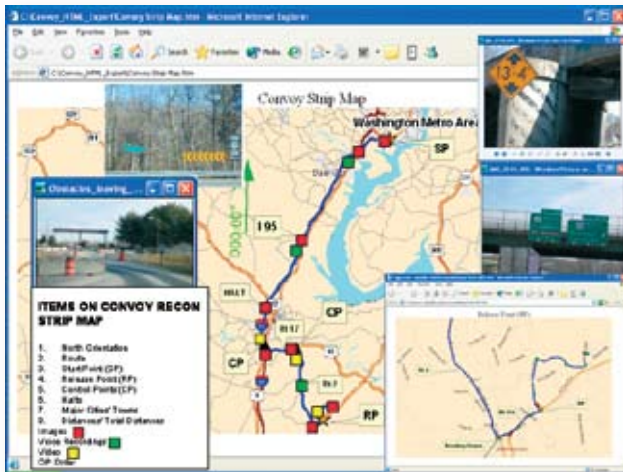
- Digital Data Tracker—Field data collection tools
- Locus Track—Interactive editing, importing, and exporting tools
- Zoom Tools—Quick zoom to scale or coordinate



GeoRoVer tools provide the capability to create self-contained Hypertext Markup Language (HTML) documents, Excel spreadsheets, or complete PowerPoint presentations in a matter of minutes for dissemination of geospatial information to those not equipped with GeoRoVer and ArcGIS software. The HTML product can be used for interactive briefings or to use as an HTML link on a Web site.

## Contact Information

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The HTML product is easily created using the GeoRover Digital Data Tracker (DDT) Export HTML tool. Once the product is created and displayed, click any of the colored icons on the browser display to view the collected data (i.e., videos, images, text documents, audio files). There is also a pop-up message that displays the name of the point and the coordinate (in whichever coordinate system the exporter chooses) when the mouse pointer rests above the points.

## Applications

- **Data Import:** Import wizard rapidly and flexibly ingests nonspatial data from many different data sources (spreadsheets, text, databases) and in many different coordinate formats into ArcGIS Desktop.
- **Data Editing:** Edit features with a streamlined, interactive interface to the ArcGIS Desktop.
- **Data Export:** Export wizard generates powerful products in standard formats (HTML, PowerPoint® slide shows, Excel® spreadsheets) from ArcGIS data.
- **Field Data Collection/Visualization:** Plot routes and collected field data as layers in ArcGIS Desktop. Field data is collected with commercial GPS receivers and other components (digital cameras, voice recorders).

GIS provides a natural overview or common operational picture (COP) for a wide variety of applications. GeoRover software gets the user's real-world data into the GIS to immediately convey meaning with points, lines, and areas of interest including linked documents or Web pages.

- **GIS Desktop Use:** GeoRover software is ideally suited for command and intelligence centers.
- **Route Reconnaissance:** Show the route and critical points of interest with links to details.
- **Site Surveys:** Show ingress and egress, utility junctions, functional zones, and deployment locations.
- **Prepare Convoy Plans:** Conduct convoy reconnaissance and prepare convoy strip maps.

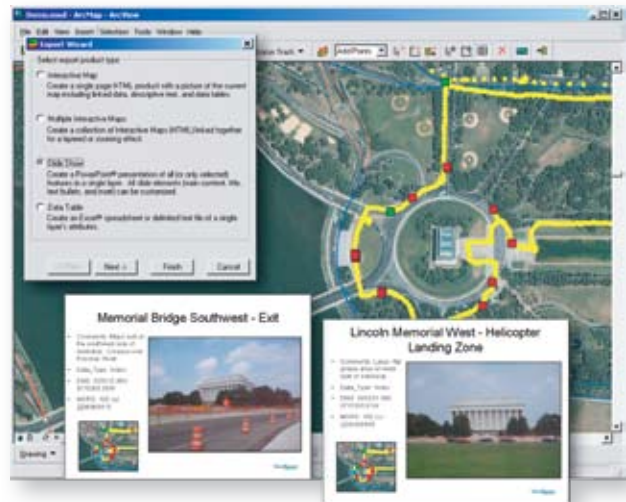
- **Vulnerability Assessments:** Interactively present the vulnerabilities and remedy recommendations.
- **Intelligence Plans and Collections:** Clearly show status of each target and link collected data to target.
- **DoD Crime Scene Investigation:** Show overall scene with precise locations and photo evidence.
- **Counterterrorism:** Conduct reconnaissance for direct action on terrorist cells. GeoRover software can be integrated with SAIC Pathfinder to perform complex analytical queries.
- **Emergency Response:** Prepare detailed emergency response plans of key facilities with linked images, video clips, and voice recordings.

## GeoRover Tools for ArcGIS

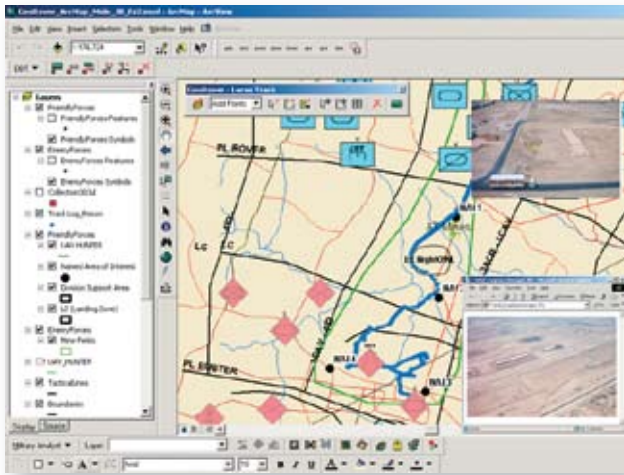
GeoRover software enables soldiers, field agents, scouts, HUMINT/CI teams, emergency responders, defense attachés, combat engineers, civil support teams, and others to gather and disseminate actionable intelligence in a geospatial context. Intelligence data can be quickly imported from multiple sources and displayed in ArcGIS. In the field, multimedia intelligence data in the form of pictures, video clips, and sound recordings can be linked on digital maps for subsequent intelligence analysis.

## Capabilities

GeoRover software is fully compatible with all ArcGIS Desktop levels of licensing (ArcView, ArcEditor, and ArcInfo).



Use Digital Data Tracker extension's new real-time track log capability in the field with a laptop or Tablet PC. Moving map display shows current position and always keeps the map in front of the current position, allowing for reaction time when navigating. View real-time heading and current position in preferred coordinate format. GPS data is loaded into an ArcMap layer in real time, showing a record of travel. Using the new geolocation wizard, data collected in the field can be georeferenced in real time.



A COP can be displayed in ArcGIS (with MOLE), and elements of field data/HUMINT data/reconnaissance data collected with the GeoRover Digital Data Tracker extension can be displayed over tactical graphics to give the commander, staff, and analysts the complete picture of unit locations. This can be layered with the collection deck, mission platform tracks, and field-collected data that resulted from intelligence requirements in the collection plan. Multiple MGRS, DMS, DD, DM, and UTM coordinates can be easily imported from operations orders, intelligence summaries, and intelligence databases with the GeoRover Import wizard.

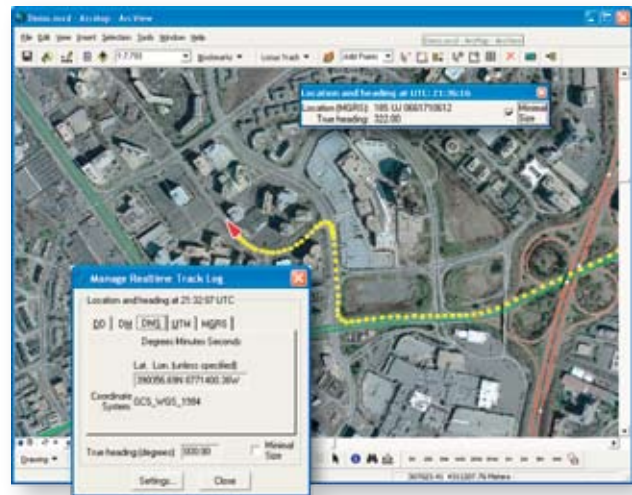
## Key Features

- Downloads track logs and waypoints from GPS receivers into new or existing GIS data layers.
- Supports Garmin® (serial and USB), Magellan® (serial), and NMEA GPS protocols.
- Real-time track log with moving map display for navigation including heading and current coordinate readout.
- Geolocates and plots field data (digital images, video clips, audio recording, etc.) by correlating the data with the GPS information.
- Wizard-driven import of points, lines, or areas from any delimited text (.csv, .txt, .tab, etc.), Excel spreadsheet, database (Access, Oracle®, Microsoft® SQL Server, etc.), or typed/pasted text with coordinates.
- Interactive (point and click) and coordinate-based tools for creating, editing, and deleting features from shapefiles and geodatabases (personal and enterprise ArcSDE).
- Ability to create complete PowerPoint presentations for all (or selected) features from the user's GIS data. All slide elements (main content, title, text bullets, and insets) are automatically generated and user customizable.
- Ability to export GIS display into interactive HTML files with hyperlinks and user-defined pop-up labels.

## Benefits

GeoRover software streamlines many processes in ArcGIS for both new ArcGIS users and experienced GIS professionals. GeoRover software is mobile and can make use of practically any data collection device.

- Discrete collection capability with no connection required in the field between the GPS and data collection devices.
- Significantly reduces training time for fundamental ArcGIS editing operations.
- Field data collection tools are compatible with almost any digital device.
- Coordinate-based tools support MGRS, which is identical to U.S. National Grid.
- No proprietary hardware required.
- Flexible data collection options
  - GPS receiver and digital camera (or other device) required in the field. No PC or cable connections are required.
  - Real-time with laptop/Tablet PC.



The Locus Track extension Export wizard can export GIS data from ArcGIS Desktop into many useful data sharing formats. Create interactive Web pages complete with custom pop-up labels, hyperlinks to data, and data tables. Export any layer into an Excel spreadsheet, complete with coordinates for every feature. Use the slide show export to create an entire PowerPoint presentation from all or selected features of a layer. A slide can be created for each feature containing linked data, overview maps, or both. Additionally, slide titles and text bullets are automatically generated and can be customized based on information within the attribute table. Create entire presentations with just a few clicks of the mouse.



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