

**The Geo Export plugin
PRINTED MANUAL**

Geo Export plugin

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Table of Contents

Part 1 Introduction	1
Part 2 System requirements	1
Part 3 Installing Geo Export	2
Part 4 Glossary	3
Part 5 Configuration	3

1 Introduction

The Geo Export module is intended for creating track files in various popular formats such as KML, GPX, Google Earth, and others. The module receives coordinates and additional data and then saves them in a file in real-time.

Since coordinates are a mandatory requirement for creating a file, the module is mainly used with our Advanced NMEA Data Logger and GPS Tracker Data Logger programs, which are used in work related to geolocation. The module can also be configured to work with other data sources in other data loggers that receive coordinates. For example, Advanced Serial Data Logger can add a placemark from a GPS receiver connected to COM1 to data that is received via COM2.

The module can simultaneously create files in several formats and generate a new file according to the schedule.

List of supported formats:

- Google Earth KML (waypoints)
- Google Earth KML (tracks)
- Google Earth KML (polyline)
- GeoJSON
- GPX
- OpenGIS GML

2 System requirements

The following requirements must be met for "Geo Export" to be installed:

Operating system: Windows 2000 SP4 and above, including both x86 and x64 workstations and servers. The latest service pack for the corresponding OS is required.

Free disk space: Not less than 5 MB of free disk space is recommended.

Special access requirements: You should log on as a user with Administrator rights in order to install this module.

The main application (core) must be installed, for example, Advanced Serial Data Logger.

Notes for Microsoft Vista and above:

Since our software saves data to the registry and installs to the Program Files folder, the following requirements must be met:

1. You need Administrator rights to run and install our software
2. The shortcut icon of our software will be located on the desktop;
3. Windows Vista will ask for your confirmation to continue the installation.

NOTE: You can configure the user account only once in order not to see the above dialog box any more. Search Google for the solution to this problem.

3 Installing Geo Export

1. Close the main application (for example, Advanced Serial Data Logger) if it is running;
2. Copy the program to your hard drive;
3. Run the module installation file with a double click on the file name in Windows Explorer;
4. Follow the instructions of the installation software. Usually, it is enough just to click the "Next" button several times;
5. Start the main application. The name of the module will appear on the "Modules" tab of the "Settings" window if it is successfully installed.

If the module is compatible with the program, its name and version will be displayed in the module list. You can see examples of installed modules on fig.1-2. Some types of modules require additional configuration. To do it, just select a module from the list and click the "Setup" button next to the list. The configuration of the module is described below.

You can see some types of modules on the "Log file" tab. To configure such a module, you should select it from the "File type" list and click the "Advanced" button.

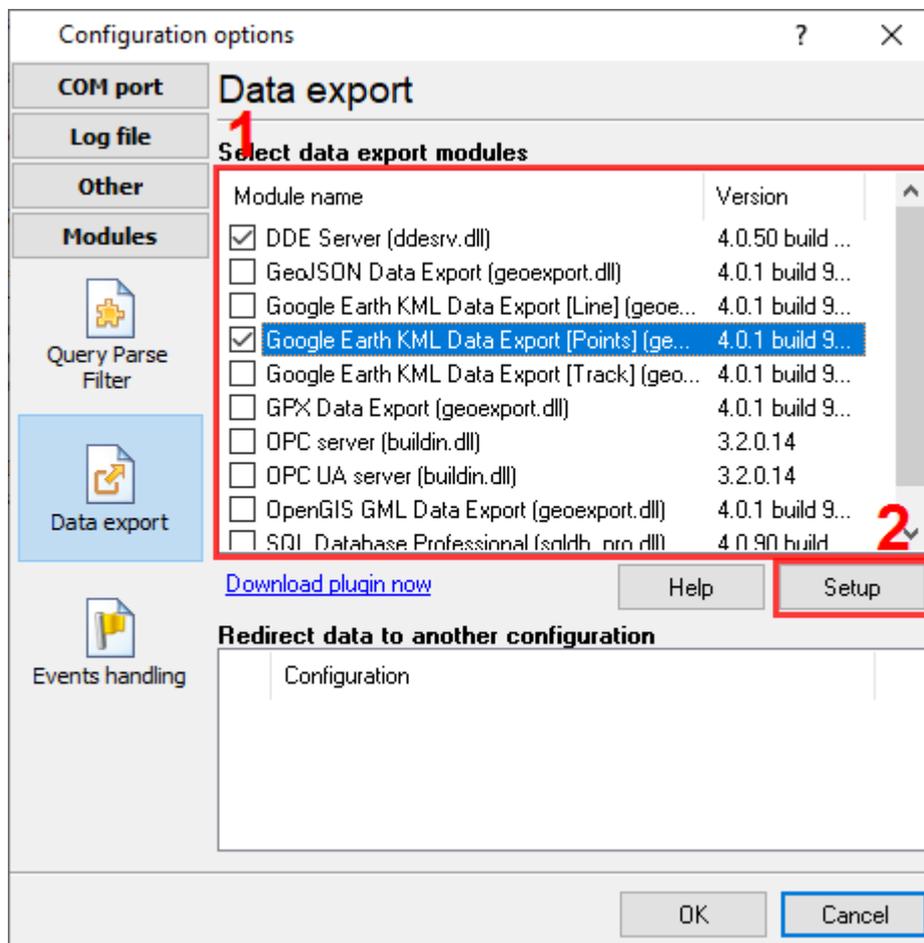


Fig.1. Example of installed module

4 Glossary

Main program - it is the main executable of the application, for example, Advanced Serial Data Logger and asdlog.exe. It allows you to create several configurations with different settings and use different plugins.

Plugin - it is the additional plugin module for the main program. The plugin module extends the functionality of the main program.

Parser - it is the plugin module that processes the data flow, singling out data packets from it, and then variables from data packets. These variables are used in data export modules after that.

Core - see "Main program."

5 Configuration

The configuration process of the module includes two stages. First, you need to configure file creation parameters, select the type of initial coordinates, and then define the role of parser variables involved in the file creation process.

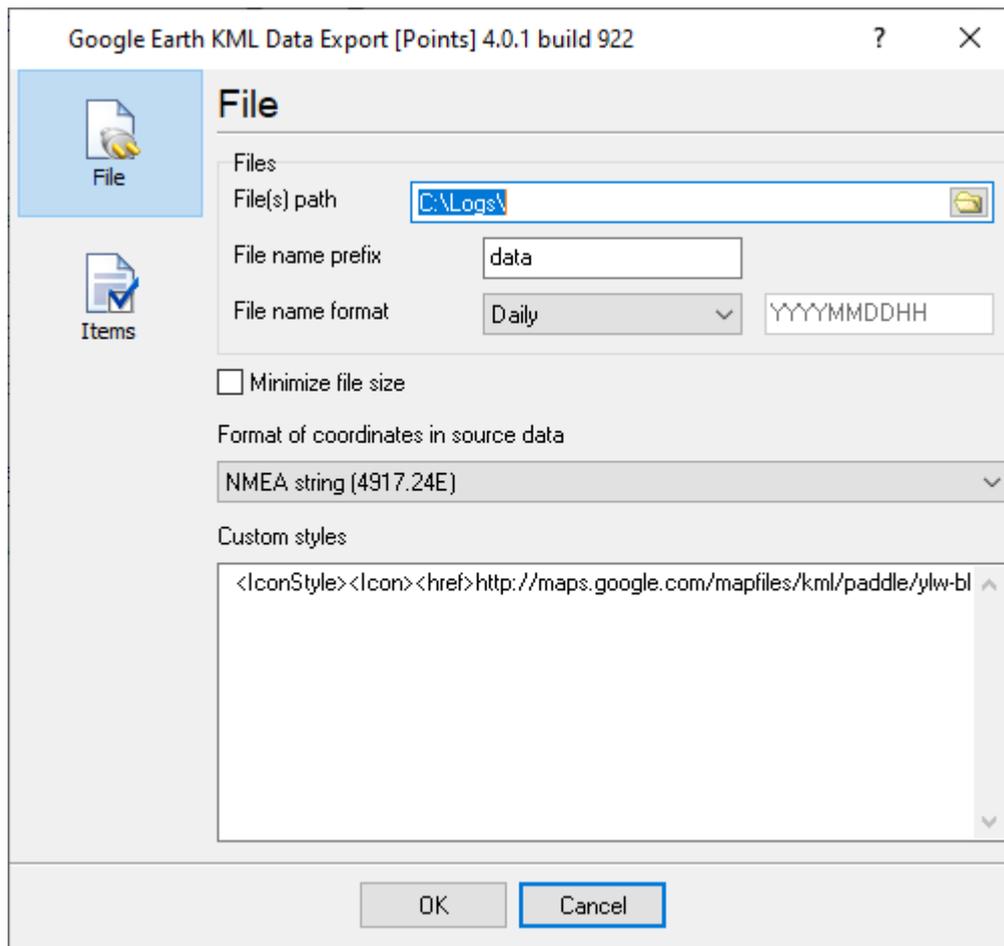


Fig. 1. Basic Settings

Files

Path - use this field to specify the path to the folder in which files will be created.

File name prefix. Use this field to specify the text that will be put at the beginning of the file name.

File name format. In this list, select the frequency of creating a new file (hourly, daily, or monthly). You can also specify your format for the timestamp that will be added to the file name.

Reduce size - if this option is enabled, the module will not add extra spaces and line feed characters to the file, which will reduce the file size and impair its readability without special utilities.

Format of coordinates

Format of coordinates in source data. Use this list to select the format in which the module will receive coordinates.

- NMEA, string. Source coordinates are extracted by the parser from data in the NMEA 0183 format and look like 4322.058, N, 07948.483, W, 4322.058 N, or 07948.483 W.

- NMEA, number. Source coordinates are extracted by the parser from data in the NMEA 0183 format and are already converted into a real number such as 4322.058 or -7948.483. Please note that for the Western and Southern hemispheres, the number is negative.
- Number. Source coordinates are a number in the WGS-84 format. For the Western and Southern hemispheres, the number is negative.

User-defined styles

Some file formats allow using one's styles to present data. In this case, you can insert your styles in this field, in accordance with the file format.

Values

Use the tab "Values" (Fig. 2) to specify which parser variable contains the required value. At least you need to add three lines to the table below, i.e., timestamp, latitude, and longitude. Some file formats allow adding a description and other geolocation parameters. Values marked with an asterisk (*) depend on the format and may not be included in the created file.

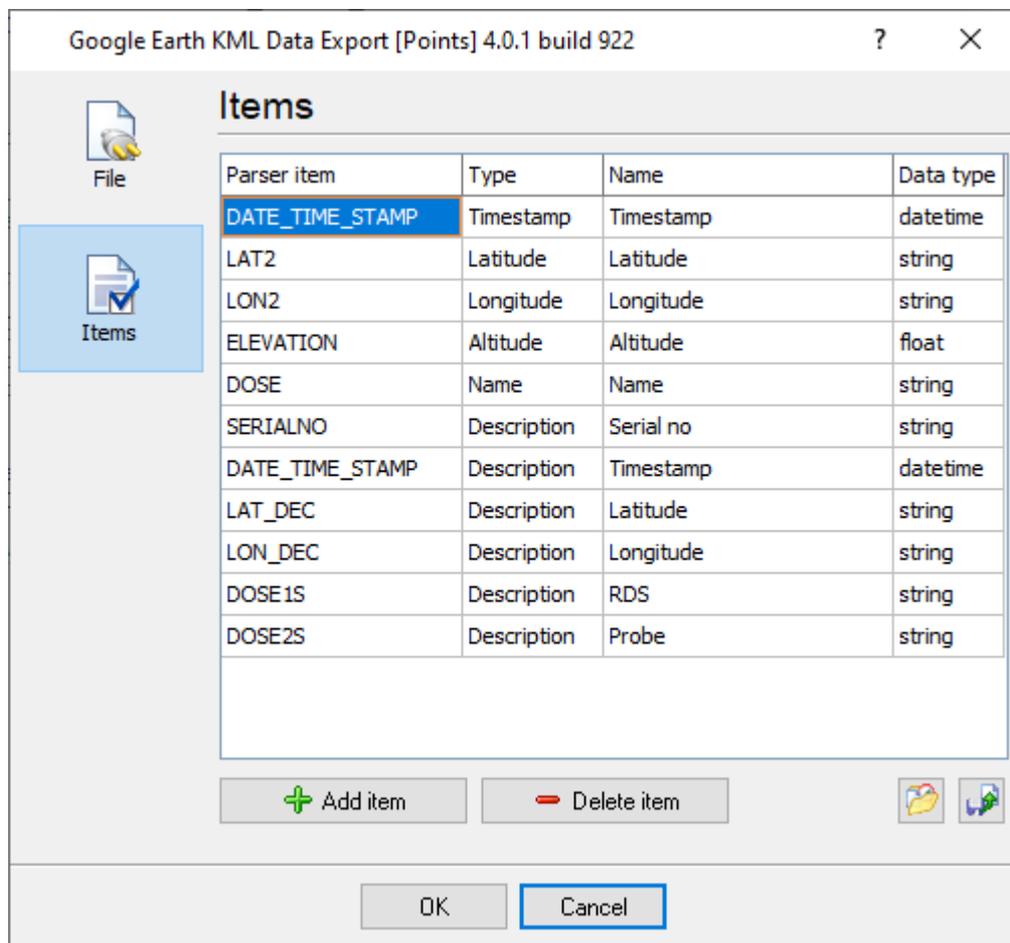


Fig. 2. Values

- Latitude, Longitude - geolocation coordinates.
- Date/Time Stamp - local date and time. The value of a parser variable must be of the type DateTime.

- Timestamp (UTC) - date and time in the UTC timezone. The value of a parser variable must be of the type DateTime. You can specify one of two timestamps. When creating a file, the module will perform automatic conversion to the required time zone.
- Altitude (*) - elevation above sea level measured in meters.
- Direction (*) - direction angle from 0 to 360 degrees.
- Name (*) - short name of a point. Frequently, this name is displayed on maps along with the placemark.
- Description (*). It is a long description of a point displayed when a point is clicked on the map.
- Icon (*). If a file format allows you to define an icon for each entry in the file, then its name, style, or other designation, subject to the file format, must be present in the specified variable.

If a text is specified in the "Name" column for values with a name or description, this value will be added to the value of the parser variable in the following form:

[Name] - [Value]

If several parser variables of the type "Name" or "Description" are specified, they will be grouped in a single comma-separated string.

Example: [Name 1] - [Value 1], [Name 2] - [Value 2], ... [Name N] - [Value N]