

Frequently Asked Questions

Using the Software



How do I configure the GPS connection?

To configure the GPS connection, click **Preferences** in the **File** menu, then navigate to the **GPS Settings** page. To display the **Serial Port** dialog, click the **Ports...** button. Default serial communications parameters are set to connect to VIASAT GPS Systems integrated GPS receivers using the following parameters.

Parameter	5000X	3000X
Serial Port	COM2 (internal connector)	COM1 (internal connector)
Baud Rate	Automatic	Automatic
GPS Driver	VIASAT GPS/WAAS	

It is recommended to only activate (through selection in the **Serial Port** dialog) one communication port to speed up the connection process.

How do I change the data logging folder?

To configure the working folders settings, click **Preferences** in the **File** menu, then navigate to the **Folder** page. It is recommended to log data directly to a permanent Flash storage memory device (for security reasons).

How do I install a new mapping system on the mobile device?

EZTag CE provides you with a tool to customize your own mapping system from the desktop computer. The **Mapping System Editor** module lets you create your own map projections so the projection files can then be installed on the mobile device.

Custom mapping systems are exported from the desktop computer in two files: **usrprj.dat** and **usrdatum.dat**, using the **Mapping System Editor**. These two files can be transferred using **Microsoft ActiveSync** in the **System** sub-folder in the **EZTag CE** installation directory on the mobile device.

Note: When usrprj.dat and usrdatum.dat are copied to the mobile device, all previous mapping systems present on the device will be lost.

How do I set the active mapping system?

EZTag CE uses a mapping system to convert GPS positions received from the GPS receiver (geographic) to Cartesian coordinates (projected). When logging data in VIASAT format, all positions are stored using geographic coordinates; the active mapping system has no effect on raw data recorded.

To set the active mapping system, click **Preferences** in the **File** menu, then navigate to the **Mapping System** page. Pick a mapping system from the list, then click **OK**.

How do I display map data (cartographic background) in the plan view?

EZTag CE Layer Manager must be used to enable cartographic data display. To display the layer manager dialog, click **Layer Manager** in the **View** menu. All layer-related files must be stored in a single path root directory; the layer manager will automatically search for files in sub-folders. Only supported files will be listed; i.e. vector data in **ESRI Shapefile** format and raster data in **Windows Bitmap** or **ECW (Enhanced Compressed Wavelet)** format.

Choose the search root directory using the **Browse** button; the layers list is automatically updated. To enable layers, check the **Visible** column for the desired layers, then click **OK**. Click **Plan view** in the **View** menu to open the plan view.

FAQ_EZTagCE_Usage_EN

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Can I create my own menus (feature data model) to collect descriptive data?

EZTag CE lets you collect your geospatial data using your own data model. You can also create your own menus using the **Dictionary Editor** feature on the desktop computer. To create a new dictionary from **EZTag CE for Windows**, click **Dictionary** in the **Tools** menu.

To install new menus on the mobile device, copy the dictionary files to the **Dictionary Folder** as defined in **EZTag CE** preferences on the handheld computer.

To enable new menus for future projects, click **Preferences** in the **File** menu, then navigate to the **GPS Surveys** page. Pick the name of the dictionary in the **Dictionary** field, then click **OK**. When the next project begins, the feature data model will be used for data collection along with the menus.

Can I change the point averaging settings to better suit my accuracy needs?

To change feature collection settings, click **Preferences** in the **File** menu, then navigate to the **Tagging** page. Set durations for GPS feature collection, then click **OK**. The duration is relative to the type of feature as defined in the dictionary used for the project; i.e. all features of the same type will have the same duration.

EZTag CE supports four (4) different durations for point average feature collection. When **EZTag CE** collects a point average, the feature type is read from the data dictionary, then the corresponding duration is applied as defined in the preferences for this feature type.

Feature Point Type	Description	Default Duration
Point average	Point average duration 1	60 seconds
User 1	Point average custom duration 2	5 epochs
User 2	Point average custom duration 3	20 epochs
Vertex	Line/Polygon vertices duration	1 second

Durations can be changed at any time when a project is running; this means that you do not have to edit the data dictionary to change the feature collection settings.

What kind of geometries are supported in EZTag CE?

Point/Point Average/Vertex: Defines the discrete locations of geographic features that are too small to be depicted as lines or areas. Points can also represent locations that have no area, such as mountain peaks.

The **Dictionary Editor** allows you to define different types of points (to be collected in the field) with respect to the observation time. To get better point accuracy, you may have to collect GPS observations over a longer period of time (point averaging).

Line: When connected, they represent a set of ordered coordinates that render the linear shape of a map object too narrow to display as an area. It could also be a feature that has no width, such as a contour line.

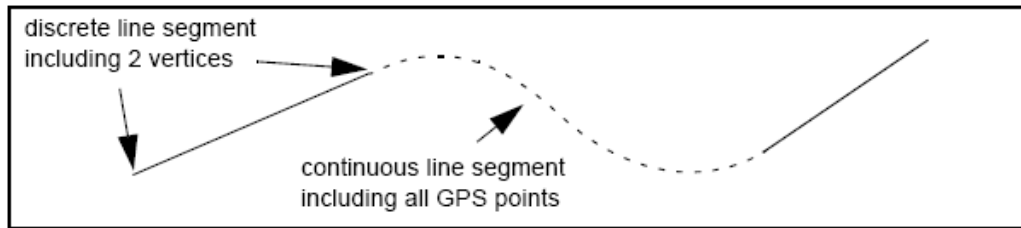
As far as linear objects (lines and polygons) are concerned, the dictionary manager lets you create in the field two different types of linear segments.

- The first type is the **continuous line**, which is composed of every single GPS point observed between the beginning and end of the line (trace). The number of points on the line depends on the recording data interval.
- The other type of line is the discrete **line**, which is created using a vertex point at a specific location. The diagram below shows the difference between continuous and discrete lines. A line can be composed of both continuous and discrete segments

Polygon: Polygons are closed figures (areas) that represent the shape and location of homogeneous features, such as states, countries, parcels, soil types or land use zones.

A polygon can be discrete or continuous just as a line can. The continuous polygon is composed of

continuous line segments, whereas the discrete polygon is made of discrete line segments.



Difference between continuous and discrete line

Can I nest points in lines or polygons?

Yes. You can use the nesting function, which allows you to collect a point while you are in the process of collecting a line or polygon without closing out the linear feature.

To collect point features that are not part of the open linear feature, pause the line or polygon before capturing the point, then resume the line or polygon to continue.

Can I offset features?

Yes. Use offsets at times when you cannot come into direct contact with the feature you want to map. For point features, record the distance and bearing to the feature. For line and polygon features, collect positions apart from but parallel to the feature and record which side the feature is on from the recorder's direction of travel (left or right) and the distance to the feature.

Can I lock the screen and keyboard?



Yes. To enable the lock, click the **Lock Icon** in the status bar. To unlock, click the **Unlock Icon** and follow the instructions on the screen.

How do I set GPS filters?

To configure GPS alarms, click **Preferences** in the **File** menu, then navigate to the **Alarms** page. Set the quality factors, then click **OK**. For example, when an alarm is active, it pauses the GPS data collection process when a point feature is recording. The recording resumes automatically when the alarm ends.





How much time do I have to stay on a point to get improved accuracy?


To toggle between modes of the accuracy indicator, click  in the status bar:

Icon	Description
	Real-time position estimated accuracy from GPS receiver
	Estimated corrected position accuracy after post-processing

The estimated corrected position accuracy indicator is only displayed when a post-processing project is recording.

Depending on the time elapsed since the last carrier phase loss of lock, the estimated corrected position accuracy indicator will display a status icon.

Icon	Estimated Accuracy
	< 1 m
	1 - 3 m
	3 - 5 m
	> 5 m

Note: Under canopy, where the satellite signal is constantly shorted by branches, trees and obstacles, the carrier phase measurements are continuously shorted. This explains why the estimated corrected position accuracy indicator will display  most of the time. For this reason, the estimated corrected position accuracy indicator is better suited to sub-meter accuracy surveys in an open sky environment.

How do I retrieve an almanac file?

To retrieve an almanac file in **EZTag CE**, let the system observe the sky in an open area for at least 30 minutes. The almanac is continuously updated when the system is in use. After a full day of operation, an almanac file should be complete and ready to use for mission planning.

Almanac files are located in the **EZTag CE** installation directory. Transfer **almanac.alm** to the desktop computer using **Microsoft ActiveSync**, then use the **EZSurv Planner** module for mission planning.