OnPOZ®

Precision Positioning

Getting Started with the eXplorist Pro 10 and EZSurv™

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This Getting Started is meant to help quickly get started, for detailed information, refer to EZSurv User Guide available with the software install.

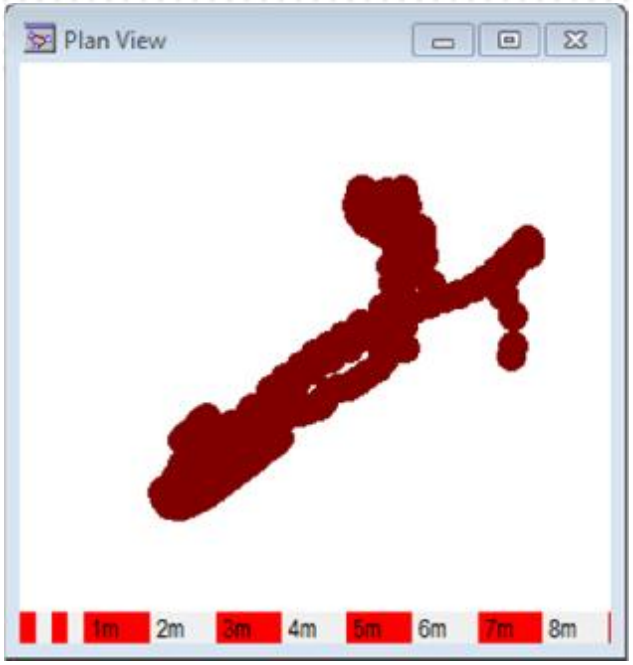
Summary

- Why post-processing ?
- Basic concepts
- Installing and starting EZSurv
- Basic configurations
  - ü Default settings
  - ü Mapping systems
  - ü Options
- Post-Process data
- Analyze data
- Export GIS features

EZSurv - Why post-processing ?

To enhance the GNSS receiver accuracy, reliability and consistency.

Both Plan View display 480 points recorded without moving the Pro10 (same position).



Before

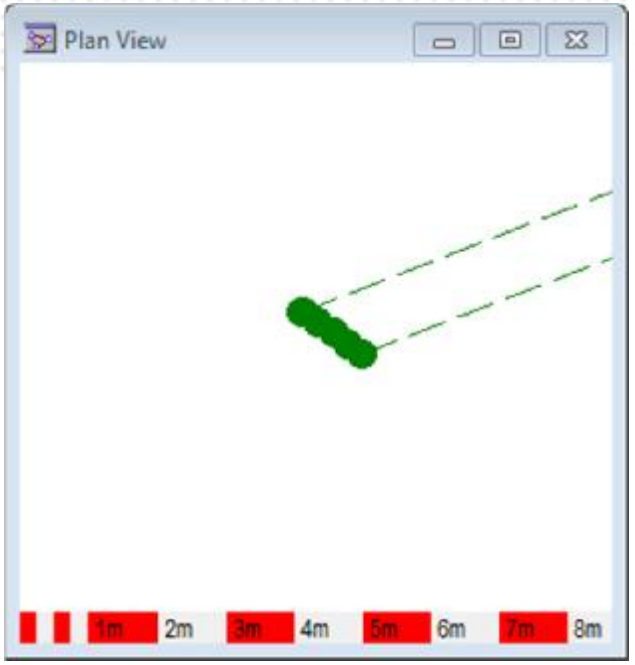
EZSurv™

Post-processing

After

EZSurv™

Post-processing



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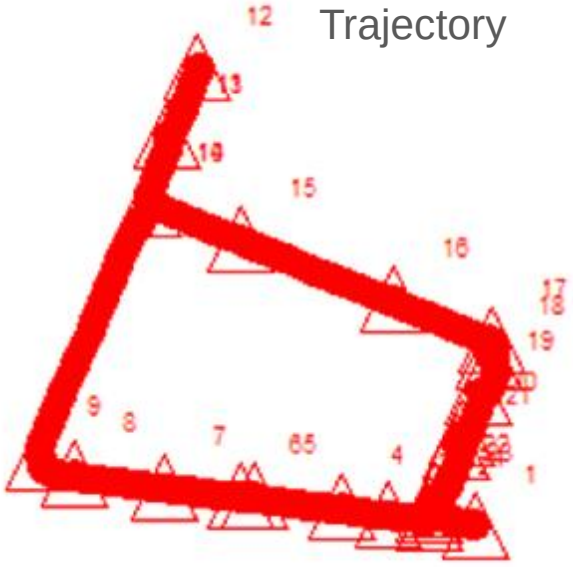
EZSurv - Basic concepts

- Differential post-processing is a relative positioning mode, the resulting positions are relative to a reference point called a Base. The relative accuracy of the positioning depends on the distance between the base and the quality of the field data. Data from many Base Stations are available on the Internet.

- EZSurv post-processes trajectories.

  Trajectories are created when a rover file (with raw GNSS data) is combined with a Base Station data file (covering the rover file time span). Trajectory may or may not include features.



Installing and starting EZSurv

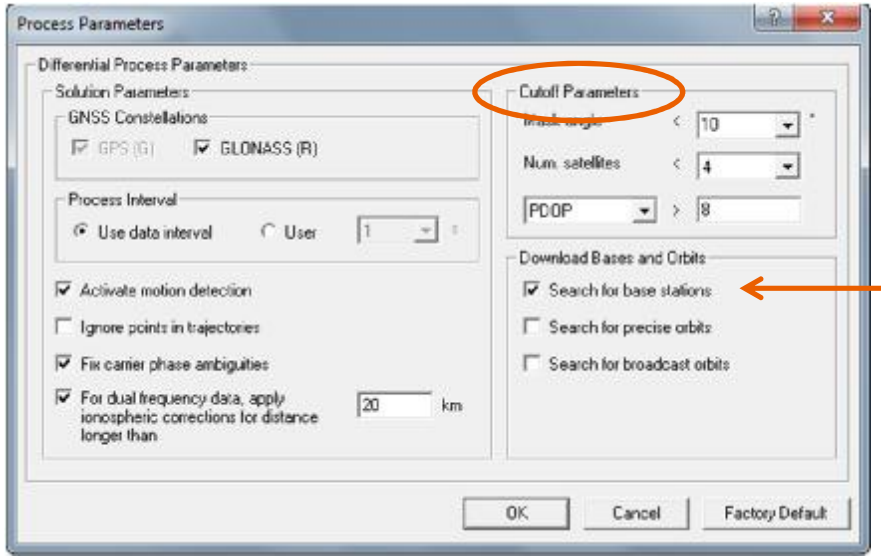
Prior to install EZSurv, remove the previous version of all OnPOZ products (GNSS Mobile Services, GNSS Driver for ArcPad, EZTag CE and EZSurv). Two different versions cannot be installed on a same computer.

- Download your EZSurv installation package and run Setup. exe to install it. Follow the instructions and, if necessary, refer to the User Guide delivered with the install.
- Start EZSurv application from the Windows Start menu, select All Programs, then Effigis > EZSurv.
- When starting the application for the first time, your license file will be updated directly from the Internet. If you are not connected to the Internet, you will be asked to load your license file at data import to get it: OnPOZSupport@Effigis.com.

Configure Default settings

When projects are closed, you can set defaults for all future projects.

- Close the current project from the File main menu.
- From the Edit Default main menu, set the default Processing Mode (Differential Positioning is the most accurate mode if you have access to base station data).
- From the Edit Default main menu, set the default Process Parameters, according to your specifications, set your own process parameters (such as cutoff parameters) and click OK to save your settings.
- Typically, default values should be correct for your needs

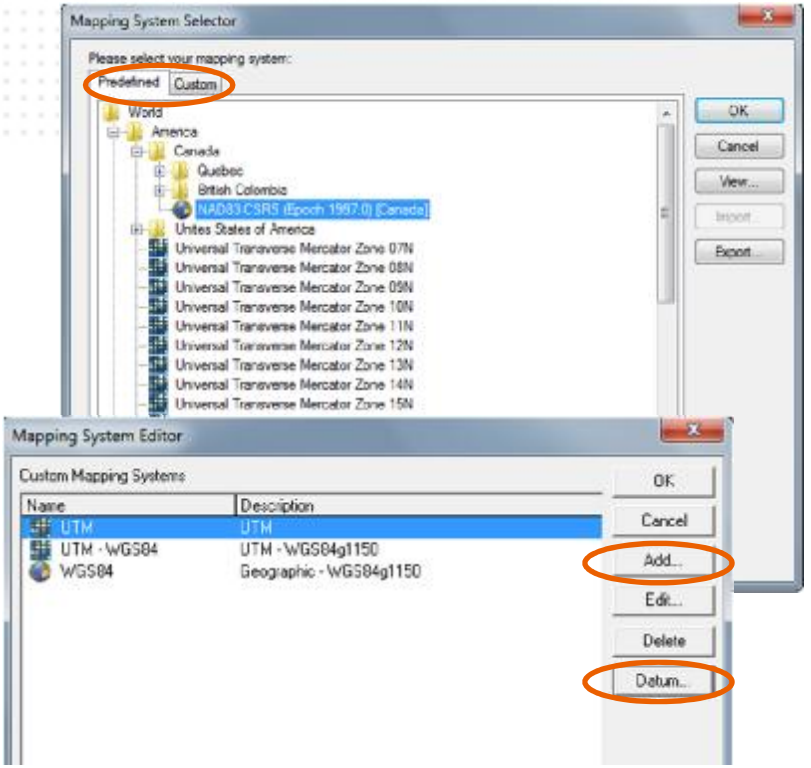


Activate the automatic «Base» search.

Configure Mapping Systems

Users of GNSS Driver for ArcPad can use ESRI map projection kit instead of re-creating its projection in EZSurv. To use ESRI projection kit, select the Format tab found under Tools > Options, then in the Shapefiles section, Set your Options. If ESRI product is not installed on your PC, then configure your Mapping system.

- Select a mapping system to display and export your results. You can select it from a list of Predefined mapping system found under Tools > Mapping systems > Selector…
- If your mapping system is not in the list, you can create a Custom one using Tools > Mapping systems > Editor… You may need to create a Datum prior to Add a mapping system. Once your mapping system is created, you can select it with Tools > Mapping systems > Selector… (Custom Tab).



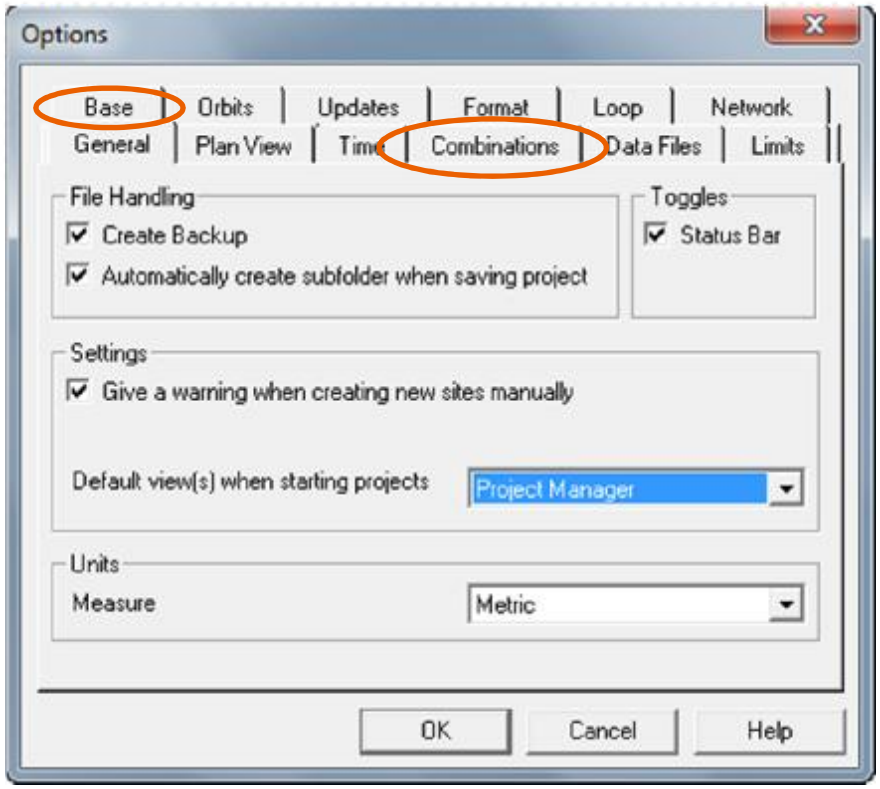
Configure Options

Options are not part of default values. However, the post-processor saves options based on your last modifications.

You may visit the different tabs when using the software for the first time. The most important ones are :

- Base (for differential positioning)
- Combination

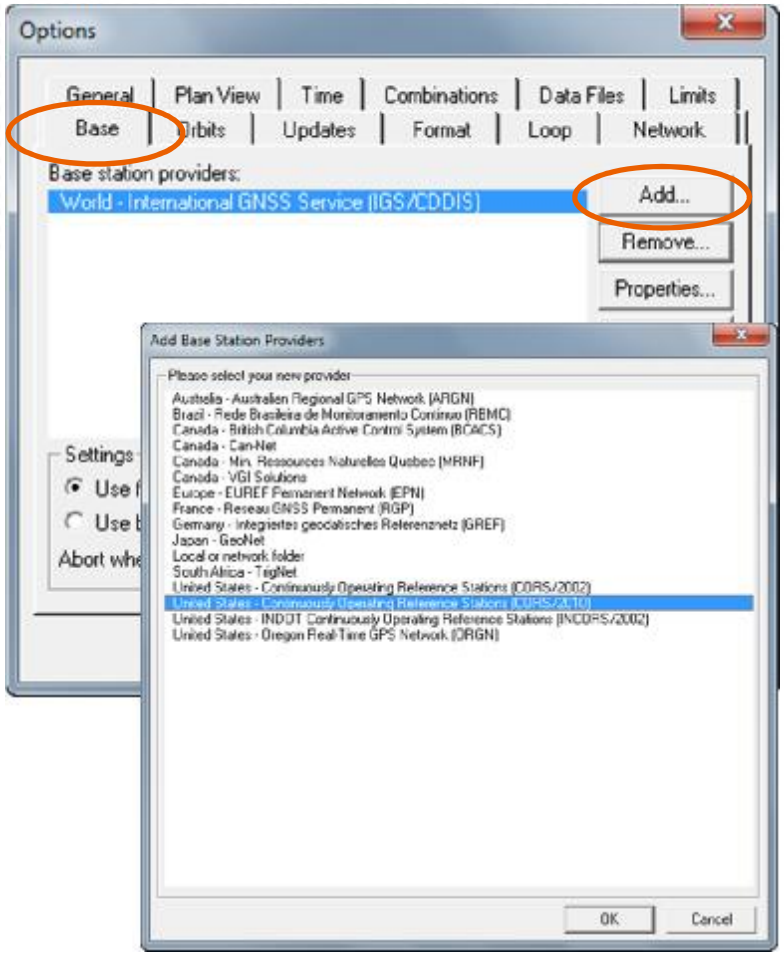
Other options are well explained in the User Guide.



Configure Options

Differential post-processing is relative to a reference point called a Base.

- Base networks are located worldwide. They are operated by government agencies or private organizations *(may required a subscription user/password)*.
- EZSurv has an automatic access to a lot of networks. The software finds by itself which base station fits best your field data and transfers the necessary files on your PC via Internet.
- Users simply have to select which Base Providers fits their area with Tools > Options... > Base tab > Add. If you operate your own base, you can define a local network folder in order to use it automatically.



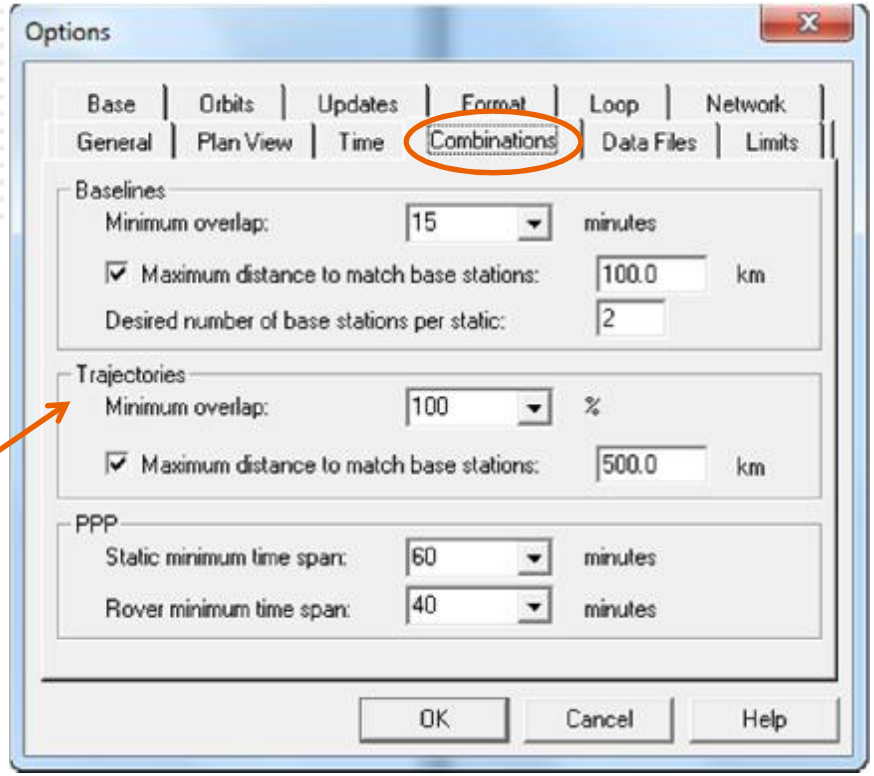
Configure Options

The accuracy of the positioning depends on the distance between the base and the field data.

Using your field data, the processor generates automatically all possible trajectories (rover - base) combinations according to your configurations set under Tools > Options... > Combinations.

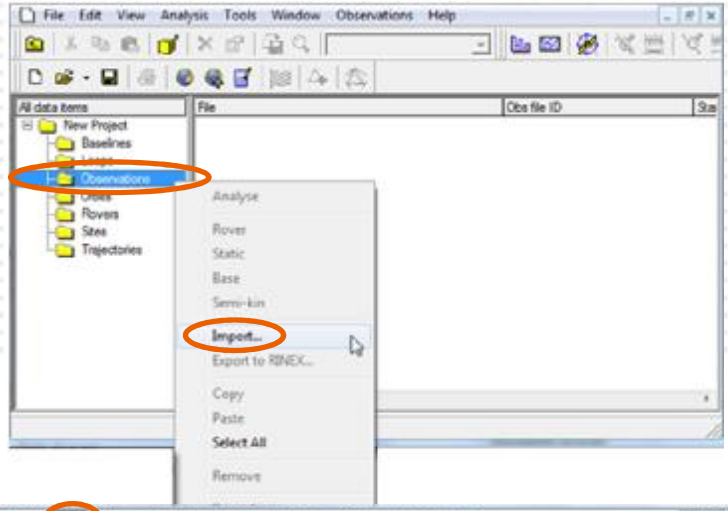
According to the accuracy needed, input a proper maximum base-rover distance to create Trajectories. Usually, a base should completely overlap the rover (otherwise some point will not be post-processed).

For GIS, maximum distance can be set between 300-500 km



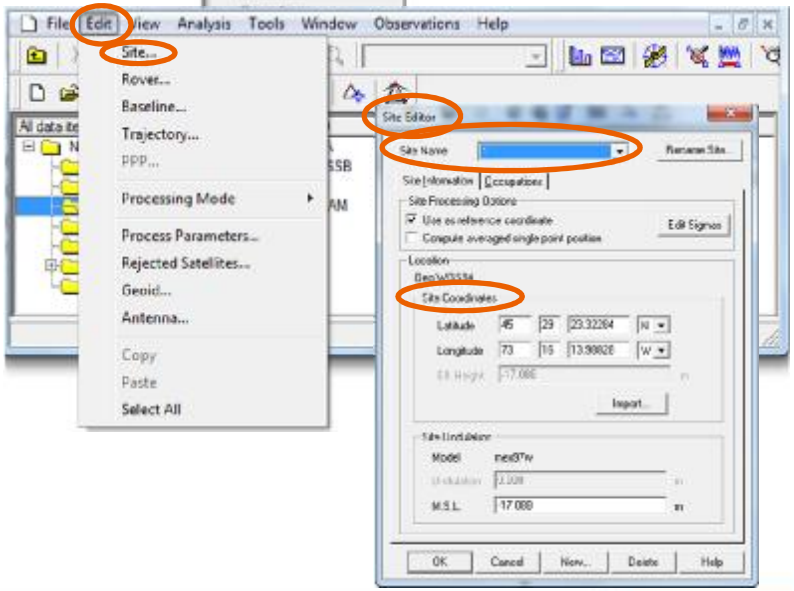
Post-process data

- Transfer your data files to the PC.
- Start EZSurv , select the Observations folder (in the Project Manager View), right click and Import your field files.



If you operate your own base (local network provider), you need to enter its coordinates.

- Access the Site Editor with Edit > Site.
- From the Site Editor Windows, select the Base site with the Site Name drop down list.
- Check the Use as reference coordinate check box and input the proper coordinates for your base site (in the proper mapping system).



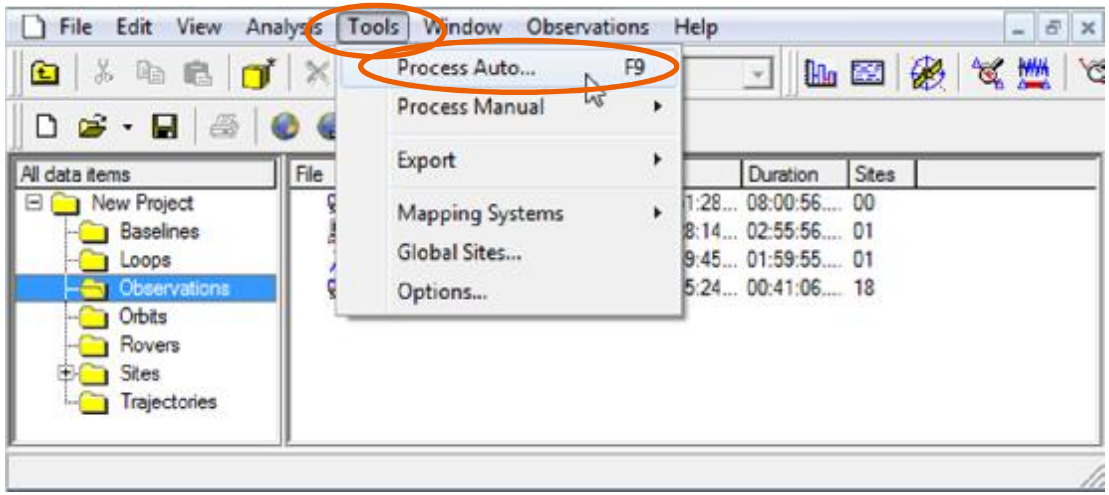
Post-process data

Select Process Auto... from the Tools menu to start the GNSS post-processing. The following processes are performed automatically:

- Download Bases and Orbits (unless you imported your own base)
- Merge Bases (if required)
- Define Combinations (according to your Options configurations)
- Process the Data

Once the post-processing is completed the Process Summary is displayed.

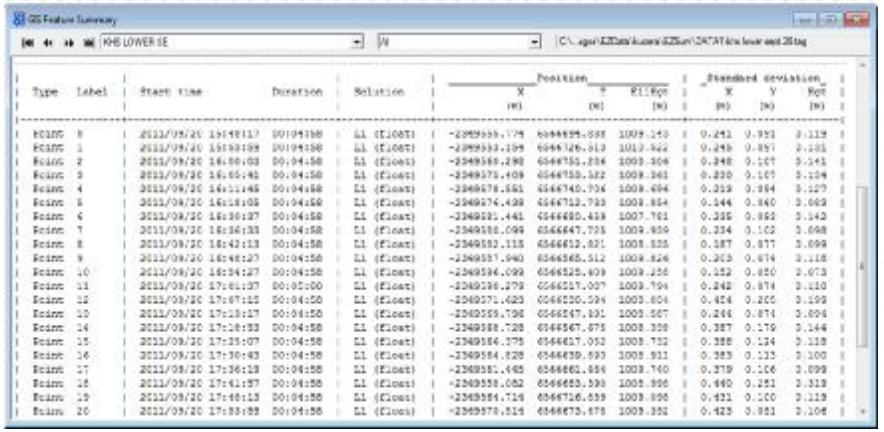
- Select Save from the File menu to update your files with post-processed positions.
- Select Archive project from the File menu to save your post-processing project into one moveable file.



Analyze data

Analysis > GIS Feature Summary

You can view the features position along with their accuracy.



Analysis > Raw Observations

If data was recorded in a difficult environment, the resulting accuracy will be affected.

Navigate through each files.

A discontinuity on a channel means a signal obstruction. A lot of discontinuities means a data set recorded in an obstructed environment (that will not provide optimum results).

Export GIS features

If you are using the GNSS Driver for ArcPad, when you saved the post-processing project (page 12), EZSurv has updated your SHP files, so you can use them directly within your ArcGIS (or other) data flow.

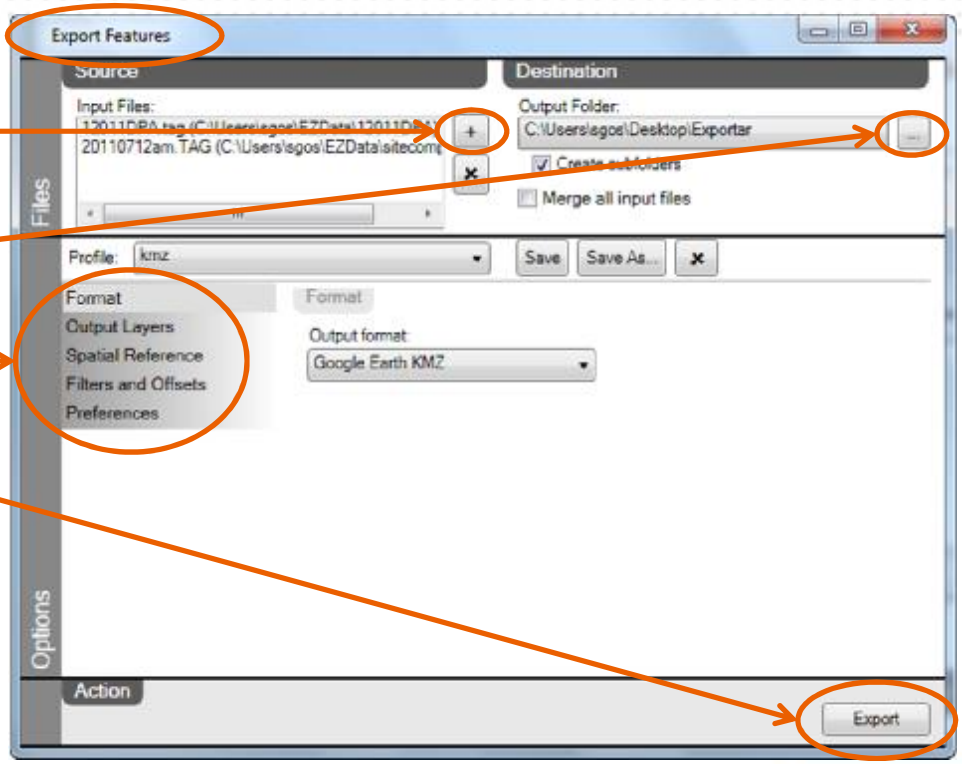
For EZTagCE users, export your post-processed positions using a specific format with Tools > Export > Features.

Select the files to export

Select the Output folder

Configure export options

Export your data



Give us your feedback or send us your questions

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