Plug & Survey

DigiTerra EXPLORER Version 6

Advanced

Field data collection & analysis

GPS receiver
+ DigiTerra Explorer 6 Advanced

Field data collection everywhere, anywhere, about anything

Handheld computers with built in (or connected) GPS receiver have facilitated the spread of applications that are able to make use of the specific features of these devices. The latest types of PDA's with Windows CE / Mobile operation system are not just personal secretaries in the pocket, but offer serious field GIS functions with DigiTerra Explorer. As a result, surveyors have all GIS data capture and analysis functions on the field that were previously available only on desktop computers.

Surveyors just have to go the field and based on the GPS positions they can immediately create point, line or polygon type objects on the map within DigiTerra Explorer.

Since you can record and modify data in the field, it is not necessary to make adjustments later in the office. This will save time, data consistency will increase and reliable analysis will be possible. Thanks to the mobile technology, your geographical database will be up-to-date and constantly improved by real-time modifications.

Field data collection step by step

1. Positioning

GPS area measurement makes use of the geographical positioning technology based on satellites. Today everybody can afford a Windows-based handheld computer with built-in GPS receiver.
To select the appropriate GPS receiver you have to pay attention to accuracy and ruggedness. Mainly these two factors influence the price of a device.

2. Data collection and processing

Geographical positions of point, line or polygon type objects - collected with the handheld GPS receiver - will be processed by DigiTerra Explorer. The software stores the result in a vector map layer and the connected descriptive data table.

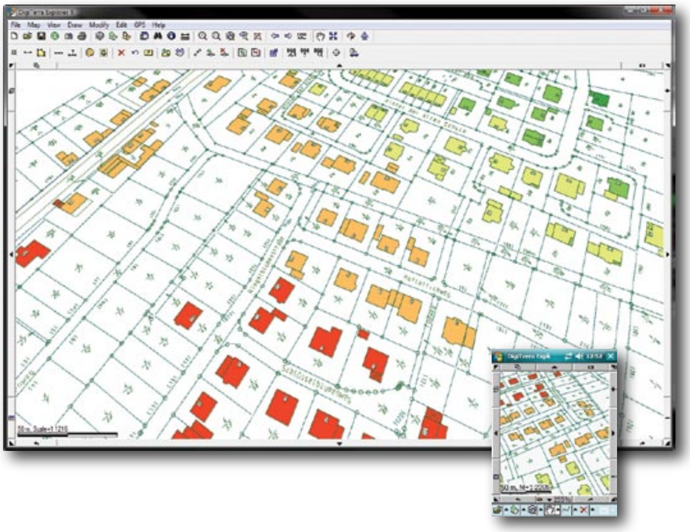
3. Thematic mapping (classification) in 3 steps

1. Classify collected data by any parameter and prepare thematic classes (for example different tree species)
2. Select the colour you would like to use for marking the classes (for example: production site of oak will be marked with brown, while pine with green)

3. Prepare your individual coloured thematic map by pressing a single button.

Thematic mapping will be supported by the following functions:

- Built-in and customizable classification methods
- Colour palette, line types, outline colours, fill colours, patterns
- Built-in and customizable raster and vector symbols
- Scale and distance dependent, modifiable labelling
- Default style and class files
- Antialiasing and alphablending technology on vector and raster layers
- Adjustment of transparency of vector layers
- Adjustment of transparency, brightness and contrast of raster layers for better visibility



Application area

Following field applications can benefit of the combination of geographical positioning and mobile technology with increased efficiency and accuracy, on-the-spot GIS analysis and decision making:

- Area measurement tasks
- Property register
- Incident reporting (damages, accidents)
- Utility management and recording
- Mapping of natural resources
- Data collection for environment protection and nature reservation purposes
- Geological mapping for mineral research

Reseller

Benefits

1. Up-to-date and accurate geographical data collection in a short time
2. Displaying of maps, analysis and decision making will be faster
3. Positions collected with the GPS receiver can be put immediately in the relevant geographical projection, there is no need for further projection transformations
4. Data collection is supported by several point, line and polygon measurement methods
5. Data collection sheets can be easily designed and customized
6. Parameters of the GPS measurement (number of satellites, PDOP value, availability of DGPS correction) will be recorded automatically on the data collection sheet
7. Adjustable rules for data fields increase consistency of data collection
8. Measurements can be edited in the field (modification of a position by manual input or dragging of a coordinate)
9. Desktop version of DigiTerra Explorer is able to print measurement protocols and maps immediately after uploading the data from the handheld computer
10. Measurements can be displayed in the field as a thematic map, coloured by arbitrary classification criteria stored in the database
11. Recorded objects can be easily found again by using built-in GPS navigation function

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DigiTerra Information Services Ltd. is continuously developing its products, therefore the described technical specification may change from time to time. Please contact us for up-to-date information.

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