

Technologies for seismology, engineering and geophysics

The GeoExplorer suite includes several modules for acquiring and processing geophysical data.

Designed to be fully integrated with our instruments, it provides high interoperability between the different modules for cross-verifying modeling and various quality control tools for the dataset.

The GE REFRACT module, thanks to its complete synergy with GE DoReMi and the DoReMi[®] seismograph provides complete control over the dataset to be processed, generating 2D sections with different processing techniques.

For more information: www.sara.pg.it and info@sara.pg.it

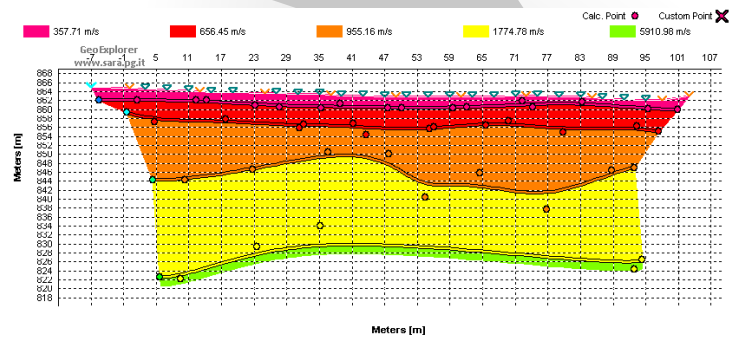
- Recording data with GE DoReMi allows you to load the entire dataset with one click within the refraction module, speeding up the processing process and minimizing the risk of errors in geometries.

The software layout follows helps the processing experience and ensures complete control over the entire process and the final results, allowing the operator to evaluate and apply the best choices based on the analyzed geological context, making the module versatile and flexible.

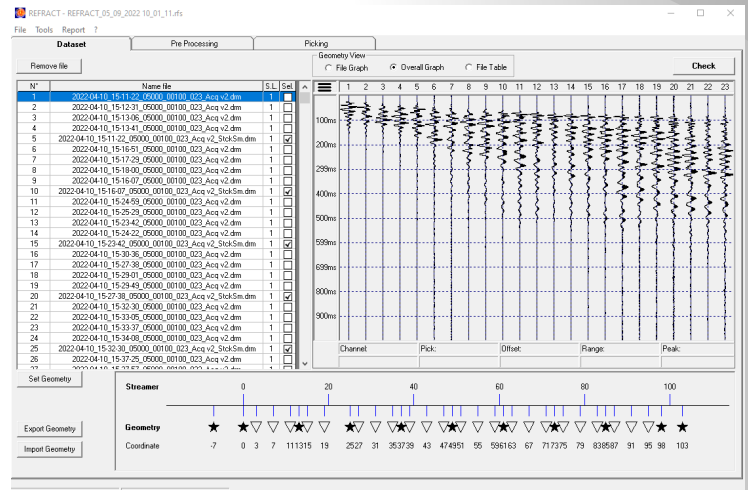
The possibility, during the management of the 2D section, to modify the smoothing parameters of the interfaces and to insert custom points within the section, allows the integration of geophysical data with data derived from different techniques. Saving the dataset, and the work status, allows for different processing and interpretation flows, allowing backups to the various processing steps..

- The software allows for the export of 1D models from the calculated sections, which can be loaded into various modules of the suite for cross-checking the modeling with other soil characterization techniques.

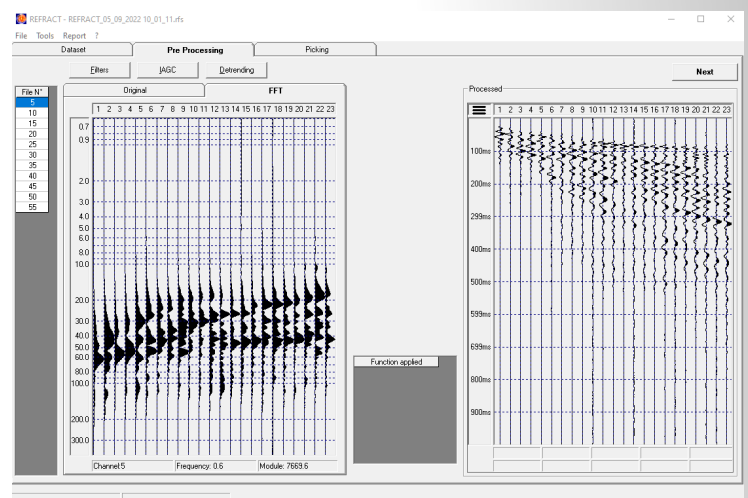
- The GeoExplorer suite requires a Windows PC.



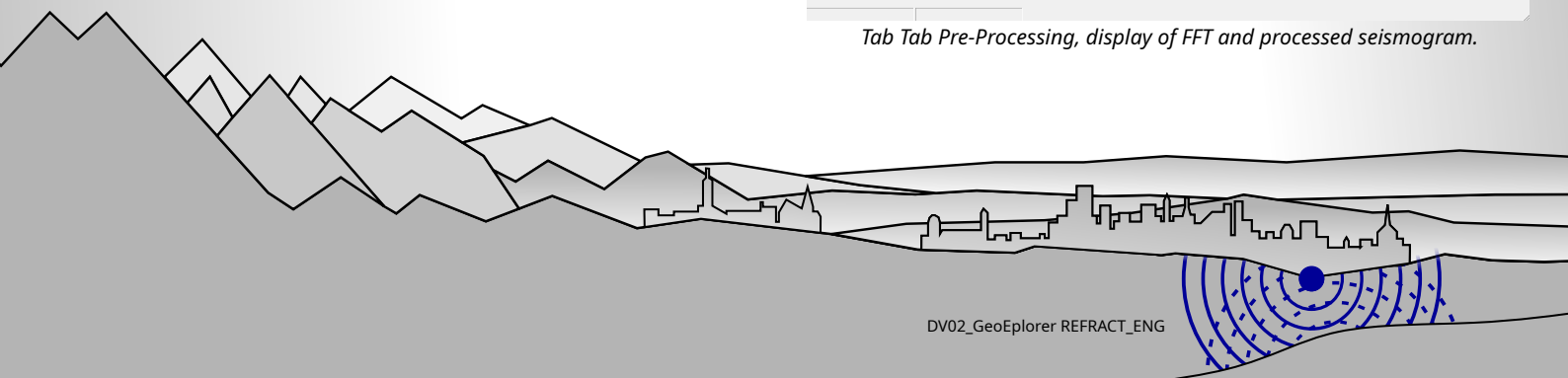
Processed 2D section using the intercept method.



Dataset Tab, display of the seismograms and overall geometry of the acquisition.



Tab Tab Pre-Processing, display of FFT and processed seismogram.



◆ Seismogram management:

- Killing trace
- Deleting trace
- Mirror
- Custom time shift
- Move channel
- Auto offset
- Custom offset

Dataset management:

- Auto-staking seismograms
- Geometry management
- Topography management

Pre-processing:

- FFT single channel
- Filters (bandpass, highpass, lowpass)
- IAGC (Instantaneous Automatic Gain Control)
- Detrending

Processing dataset:

- First break picking
- Dromochrome picking
- Reverse shot management (GRM)
- GRM parameters XY, Tv e Tg
- Topography correction

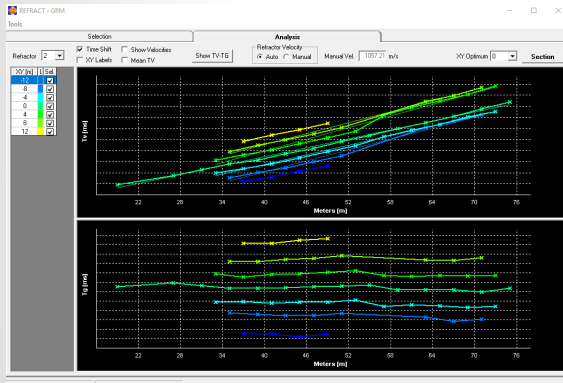
Elaboration method:

- intercept method
- True GRM (generic reprocid method)
- 1D model export form 2D section
- PDF report with notes and photos
- Work save and backup

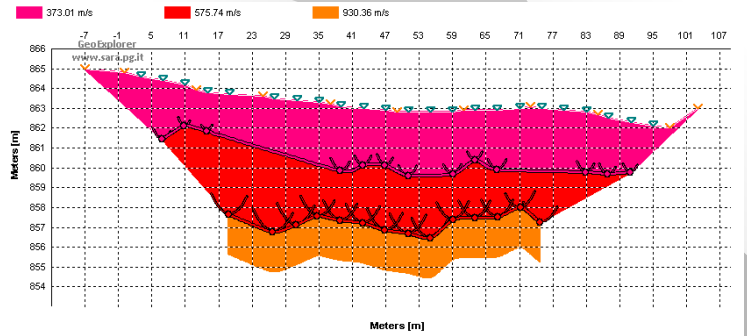
The module does not require third-party software for graphical representations and it is possible to export each single image and table displayed.

The supported formats are:

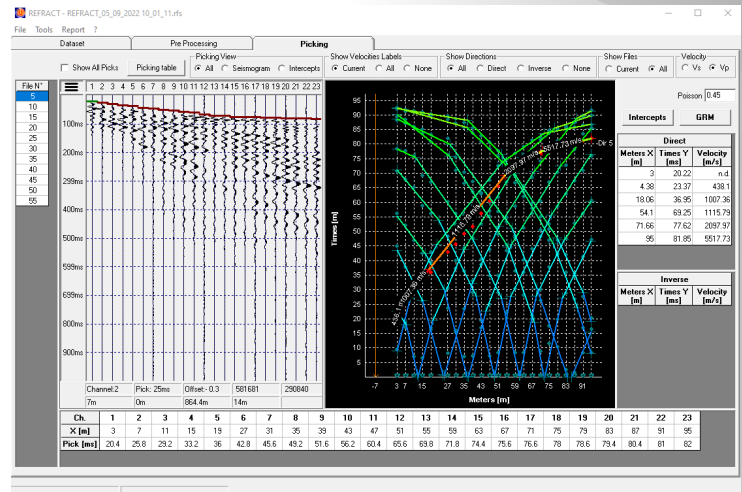
- .drm
- .seg1
- .seg2



GRM window, Tv and Tg data visualization.



2D section from GRM elaboration.



Tab Picking, picking visualization and dromochrome picking.

SARA electronic instruments s.r.l. is constantly looking for new solutions, implementations and optimizations for the GeoExplorer Suite, providing a high level of customer support and gathering customer feedback for the Suite improvement.

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