SeisImager/2D

Refraction Modeling, Processing, and Interpretation Software

- **Comprehensive modeling and ray tracing**
- **Automatic and manual first break picking**
- **Quality control tools to improve your results**
- **Three analysis methods**
  - **time-term least squares**
  - **delay-time (reciprocal)**
  - **tomographic inversion**
- **Operates on your PC or on Geometrics Windows-based seismographs**

SeisImager/2D refraction software is a fully integrated refraction modeling and interpretation software package that runs on your Geometrics seismograph or PC.

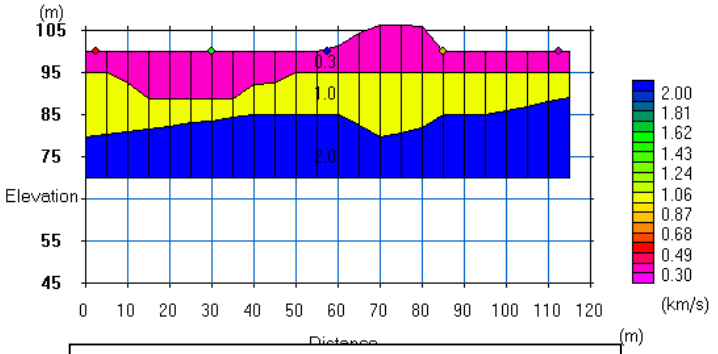
Before you leave for the field, determine the best way to configure your survey by drawing a geologic cross section of the site and performing a simulated survey with sophisticated modeling software. Change the model so you can see what targets are detectable.

Identify first breaks quickly with an accurate automatic picker, with manual override. Clean up noisy data with comprehensive filtering and view all your prior picks simultaneously for shot-to-shot coherence.

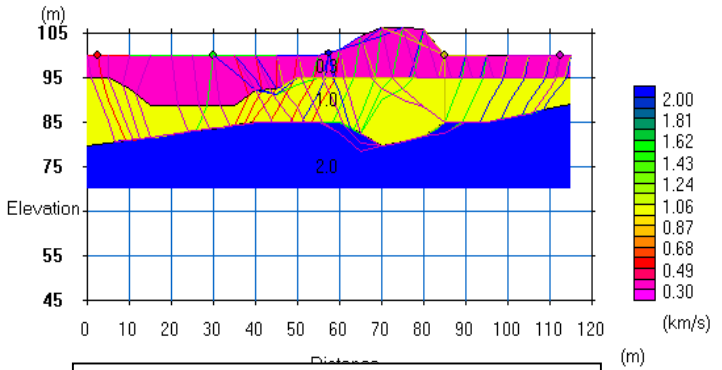
QC your data before analysis to ensure that your answer will be the most accurate. Display differences between travel time curves to distinguish layering and refractor topography. Automatically resolve reciprocal time conflicts that cause inaccuracies in depth estimation.

Choose from three methods of analysis to best suit the geologic conditions. Take a quick look with a 2 or 3-layer time-term analysis. If you prefer traditional methods, use the delay-time (reciprocal) method and view the process step-by-step. If you expect lateral velocity variations, use the optimized tomographic analysis that runs quickly and accurately.

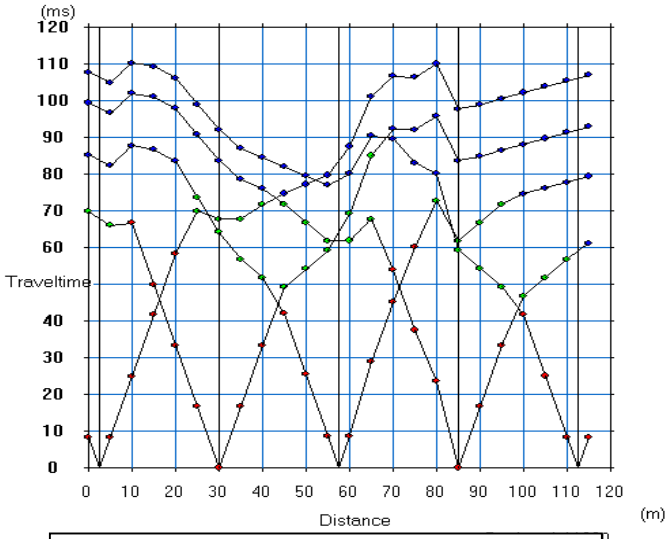
A field (lite) version of SeisImager/2D comes free with all Geometrics Windows-based seismographs. If you would like to try or purchase a full copy for your PC, please contact Geometrics at sales@geometrics.com. The modeling software is also available as a separate module and is free for the asking.



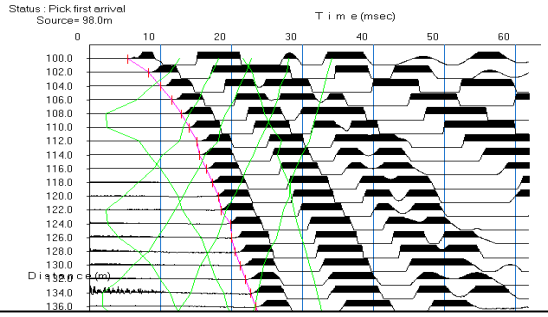
1. Create a model of your site. Add topography and vary the velocities for a realistic representation.



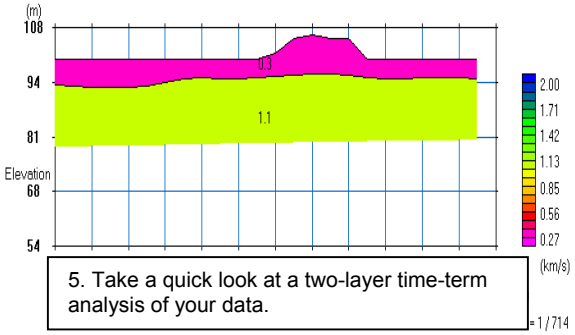
2. Set-up shots and receivers and perform a simulated survey. Adjust shot and receiver spacing to optimize coverage and minimize field time.



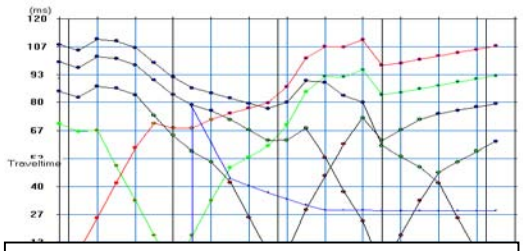
3. Generate travel time curves for your model. Make changes and compare differences in the travel time curves to help identify subtle features.



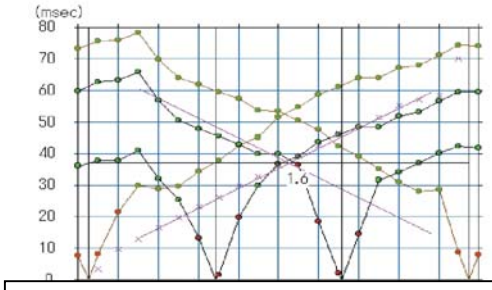
4. Go to the field and collect your data. Pick breaks quickly and accurately with the automated picker and adjust them manually with an interactive cursor. View travel times from other shots simultaneously for best coherence.



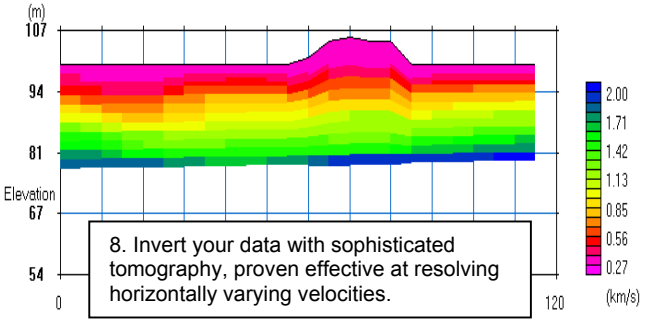
5. Take a quick look at a two-layer time-term analysis of your data.



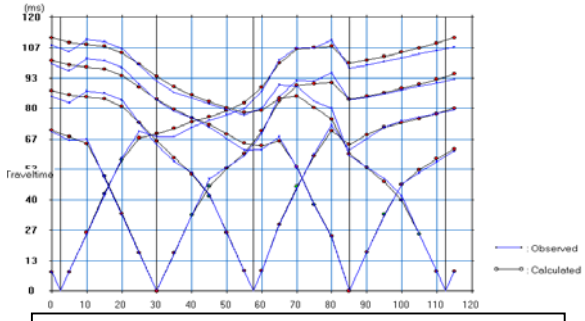
6. Check the integrity of your data with a suite of quality control tools for automatically differencing curves and resolving reciprocal time conflicts.



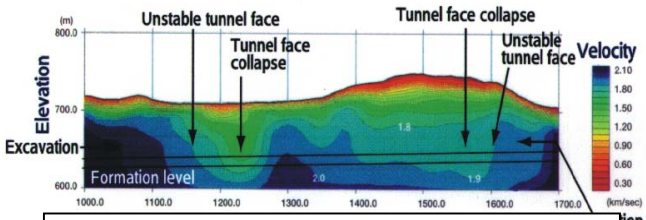
7. Perform a detailed delay-time (reciprocal) analysis with the added flexibility of user-defined lateral velocity changes.



8. Invert your data with sophisticated tomography, proven effective at resolving horizontally varying velocities.



9. Ray-trace your final answer and compare with your original data to look for discrepancies.



10. SeisImager/2D runs on Windows 95 to XP, so you can annotate your final cross section using standard Windows graphics programs.

SeisImager/2D Software Packages

Demonstration version: for use on PC with mouse, may be launched 15 times; allows 1,025 samples per trace, 25 traces per shot, 5 shots per spread, and one spread per interpretation; no printing capability.

Field (lite) version: included with purchase of Geometrics Windows-based seismographs. For use on seismograph with mouse or PC with mouse; allows 2,050 samples per trace, 64 traces per shot, 12 shots per spread, and one spread per interpretation.

Standard version: for use on seismograph with mouse or PC with mouse; allows 4,100 samples per trace, 75 traces per shot, 13 shots per spread, and 5 spreads per interpretation.

Professional version: for use on seismograph with mouse or PC with mouse; allows 10,000 samples per trace, 480 traces per shot, 480 shots per spread, and 100 spreads per interpretation.

The standard and professional packages are also available for rent.

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