SeisImager/2D
Refraction Modeling, Processing & Interpretation Software

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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 two methods of analysis to best suit the geologic conditions. Take a quick look with a 2 or 3-layer time-term analysis. If you expect lateral velocity variations or gradual vertical 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.

• Comprehensive modeling and ray tracing.

• Automatic and manual first break picking.
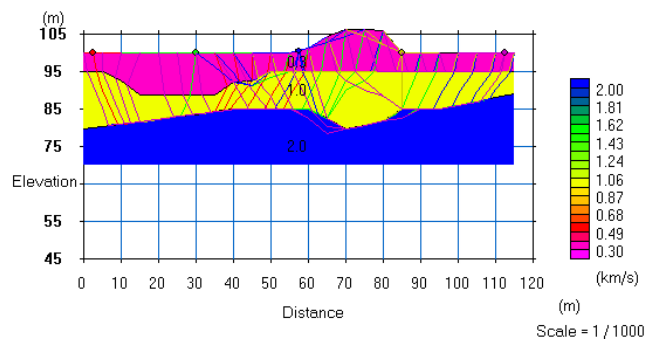
• Quality control tools to improve your results.

   Two analysis methods:
   - Time-term least squares.
   - Tomographic inversion.

• Operates on your PC or on Geometrics Windows-based seismographs.

• Optional surface wave package add-on.
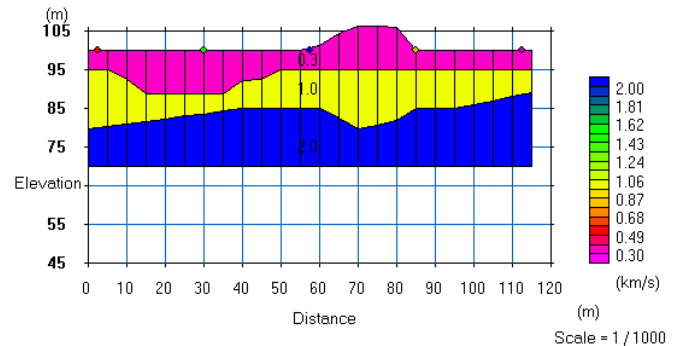
1. Create a model of your site. Add topography and vary the velocities for a realistic representation.
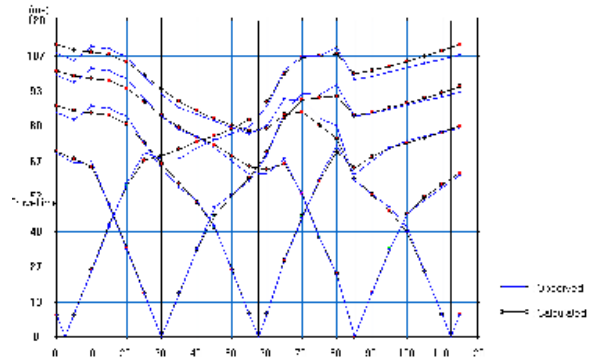

2. Set-up shots and receivers and perform a simulated survey. Adjust shot and receiver spacing to optimize coverage and minimize field time.
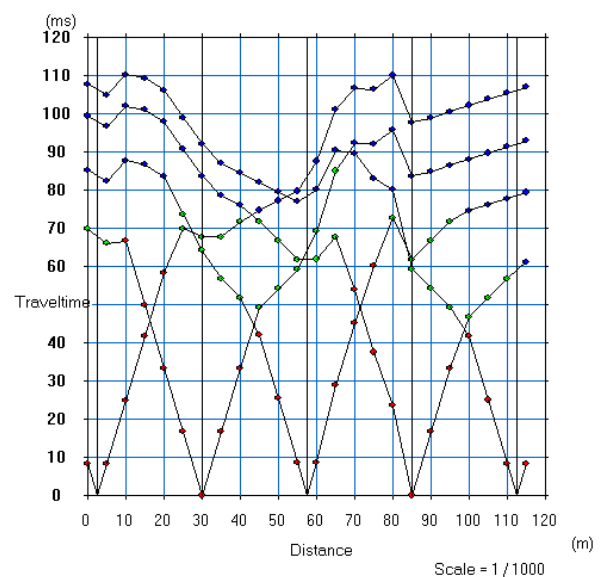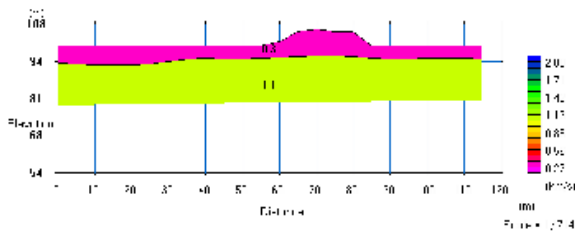

3. Generate travel time curves for your model. Make changes and compare differences in the travel time curves to help identify subtle features.
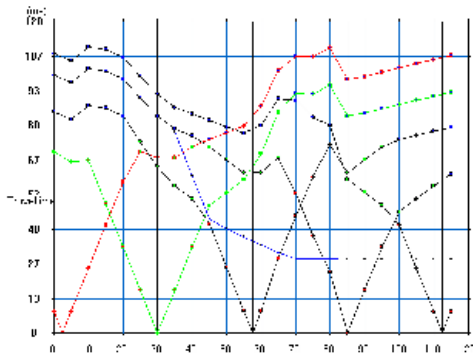
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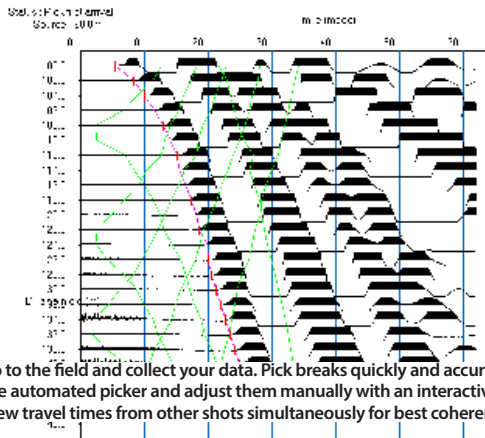
4. Go to the field and collect your data. Pick breaks quickly and accurately with the automated picker and adjust them manually with an interactive cursor. View travel times from other shots simultaneously for best coherence.
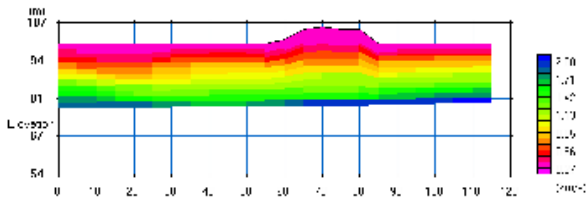

5. Take a quick look at a two-layer time-term analysis of your data.

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

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

8. Ray-trace your final answer and compare with your original data to look for discrepancies.
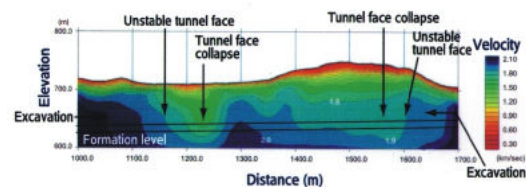
9. SeisImager/2D runs on Windows 95 to XP, so you can annotate your final cross section using standard Windows graphics programs.

SeisImager/2D Software Packages

Standard version: for use on seismograph with mouse or PC with mouse; allows up to 16K samples per trace, 512 traces per shot, 360 traces per interpretation, and 65 shots per interpretation.

Professional version: for use on seismograph with mouse or PC with mouse; allows virtually unlimited input up to 2M samples per trace, 48K traces per shot, 48K traces per interpretation, and 48K shots per interpretation.

Lite version: included with purchase of Geometrics Windows-based seismographs. For use on seismograph with mouse or PC with mouse; allows up to 16K samples per trace, 64 traces per shot, 51 traces per interpretation, and 12 shots per interpretation.

Demonstration version: for use on PC with mouse, may be launched 15 times; same allowances as Lite version; no printing capability.

Note: The number of shots per spread and spreads per interpretation are dependent on the actual trace number used.

The Standard and Professional versions are also available for rent.

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