

SeisImager/SW Surface Wave Analysis Software

► Passive (microtremor) and active source surface wave data analysis

- Calculates phase velocity and picks dispersion curve
- Performs inversion to iteratively seek 1D S-wave velocity (Vs) curve or 2D Vs cross-section
- Allows active and passive source dispersion curves to be combined for a high-resolution result over all depths sampled
- Analysis based on robust methods: frequency domain tau-p, CMP cross-correlation for active; spatial autocorrelation for passive
- Includes editing and QC functions, velocity modeling

► Determine S-wave velocity for a variety of applications

- Vs30/Vs100 site classification
- Foundation engineering
- Void detection
- In-fill and landfill investigation
- Stratigraphic and litho logic studies
- Deeper surveys of geologic structure

► Wizard-driven operation for easy, straight-forward data analysis

Surface waves are easy to record and loaded with information about the subsurface. With SeisImager/SW, data processing is simple, putting the answers you seek at your fingertips.

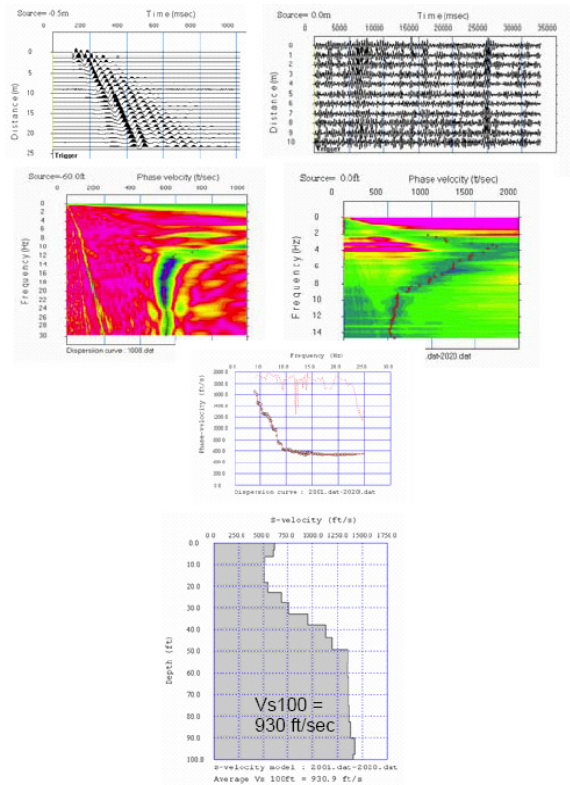
SeisImager/SW includes both active source and passive source data analysis capability. The higher frequency data from a sledgehammer source that travels through shallower depths can be combined with lower frequency data from microtremors that travel through greater depths. Combine the results for one high-resolution plot of S-wave velocity.

Upon launching the software, a wizard walks you through the data analysis. SeisImager/SW includes default parameters that are suitable for most cases, but are fully user-adjustable as needed.

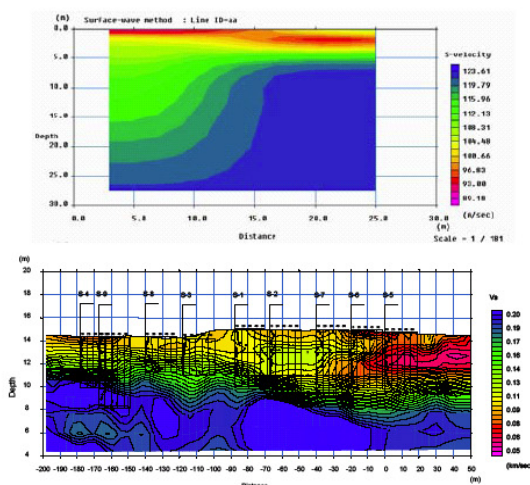
SeisImager/SW is now available for purchase separately or as an option with the ES-3000, Geode, and StrataVisor NZ seismographs.

The software comes standard with the specialized, low-priced ES-SW 16-channel seismograph package tailored for IBC Vs100 surveys.

Example 1D active and passive source analysis



Collect a series of active source shot records to calculate a 2D cross-section



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In addition to the main functions used to determine Vs, SeisImager/SW also allows the user to build models and examine the effects of velocity variations. Borehole data such as P-wave velocities and blow counts (N-values) can also be correlated.

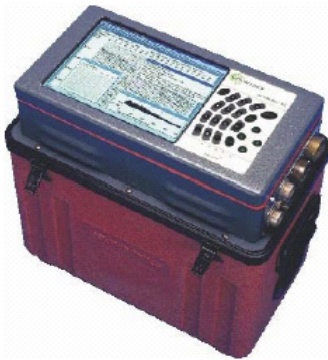
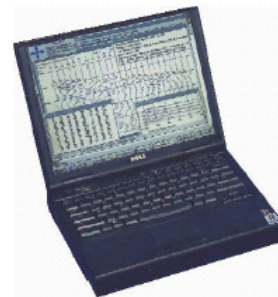
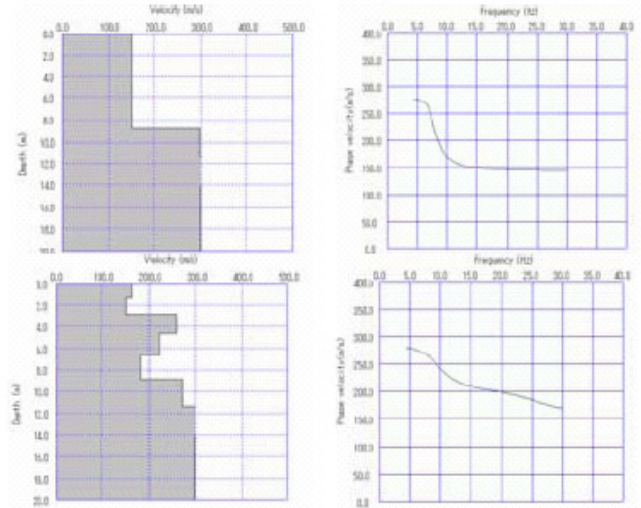
For 1D active source data, take one or two off-end shots with a sledgehammer. In noisier environments, you can also stack multiple shots for increased signal-to-noise ratio.

For 2D active source data, shoot through a fixed spread, roll via software or a roll box, or use a land streamer to collect a series of shots over the length of the survey line.

To supplement active source data, passive source microtremor data is collected by manually triggering the seismograph to record 20 records of 32 seconds each.

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The 1D version comes standard with the specialized, low-priced ES-SW 16-channel seismograph package tailored for IBC Vs100 surveys.



SeisImager/SW Software Packages:

1D version:
Runs on Windows PC with mouse, capable of passive source Microtremor Array Measurements (MAM) and 1D MASW.

2D version:
Runs on Windows PC with mouse, capable of MAM and 1D and 2D MASW.