

New to SurfSeis 6

- Constrained inversion (fixed known model values, e.g., from wells) modified interactively on 2D models.
- Stitching dispersion-curve images, i.e., using preferred frequency ranges only interactively.
- Attenuation measurement and inversion for Qs and conditionally Qp (optional feature, new in v6.4 and higher).
- Advanced and friendly Kriging capabilities.
- Horizontal axis remapping.
- New tutorial and more.

Current Capabilities

Dispersion Curve Imaging

- Phase-shift method
- Advanced
- HRLRT (for multi-modes and shorter spreads [higher lateral resolution])

Inversion of four wave types for shear-wave velocity (Vs)

- Fundamental mode
- Higher modes

2-D Vs Imaging

- Normal
- Kriging – Advanced and Simple
- Inversion of Rayleigh-wave attenuation for Qs (and Qp for special cases)

View 2-D Results

- Vs and Shear Modulus
- Vs30 and SPT N
- Vp/Vs and Poisson's ratio with a priori Vp

Seismic Data General Processing

- Bandpass and FK filters, Mute
- AGC and trace-by-trace frequency spectra

Seismic Data Utilities

- Data type conversion options
- Geometry assignment
- Various display options

Research Tools

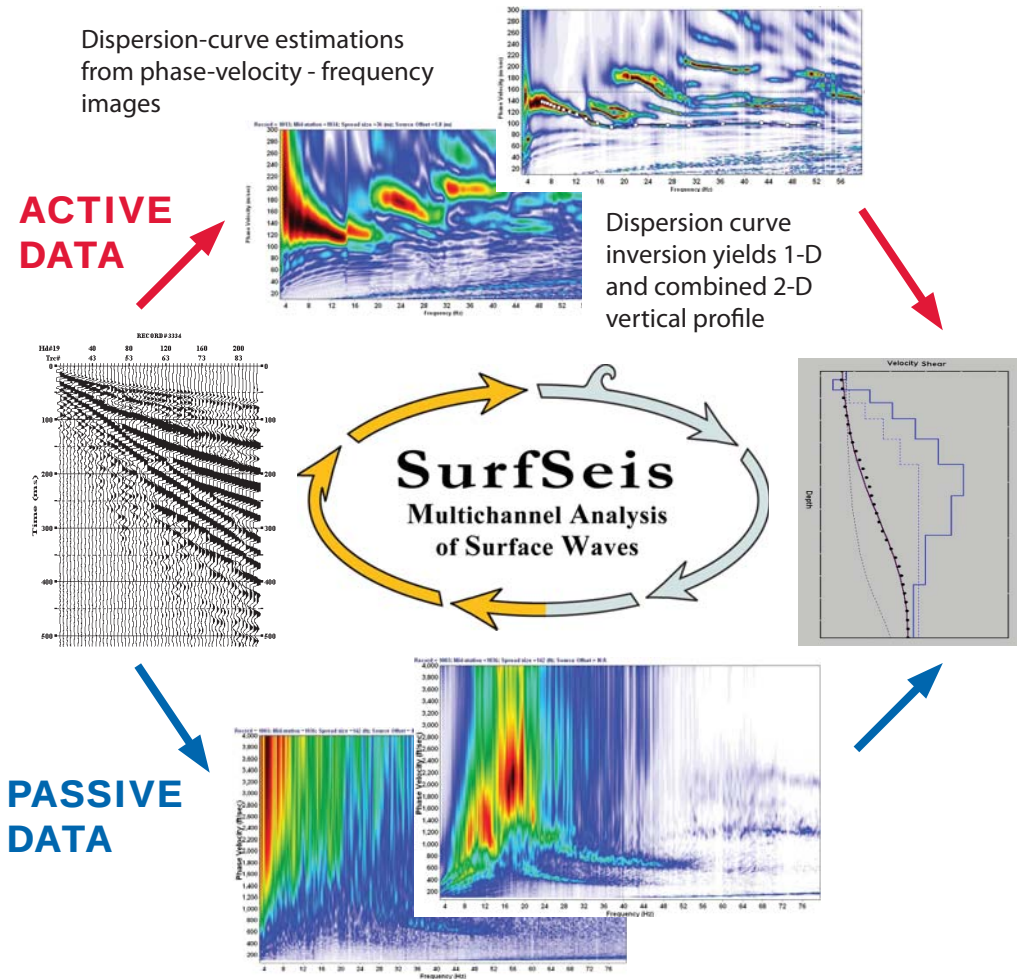
- Multi-mode Monte-Carlo inversion
- Modeling
 - » Dispersion-curve estimations from layer models (check if Vp matters)
 - » Comparison of calculated vs. imaged dispersion curves ("effective" mode)

SurfSeis[®]

SURFACE WAVE PROCESSING SOFTWARE

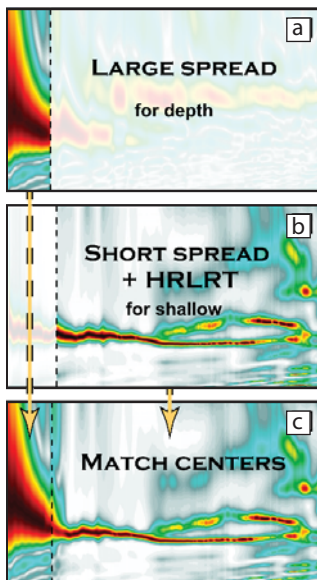
for use with Microsoft[®] Windows[™]

SurfSeis[®] software was developed as a product of our research at the Kansas Geological Survey (KGS). It was written to process both active and passive seismic data to obtain shear-wave velocity (Vs) models, using the multichannel analysis of surface waves (MASW) method, which was also originally conceived and developed at the KGS. Surface waves have historically been the bane of near-surface reflection seismologists. With the development of MASW has come a global explosion in research and use of the MASW method for application to engineering, groundwater, and environmental problems. **Our sixth generation (SurfSeis[®] 6.0 – 6.7) provides industry-leading features and capabilities.**



Visit our website for information on **FREE** workshops, publications, and new exciting features.
<http://www.kgs.ku.edu/software/surfseis>

Now in SurfSeis® 6



Stitching Dispersion-Curve Images

- Using a low-frequency portion from a larger-spread conventional-transform image and
- the high-frequency portion from a shorter-spread HRLRT image
- with the stitching tool creates a blended image that exhibits a wide frequency range fundamental mode trend.

This new image contains both low frequencies for greater depth estimates and high frequencies for shallow depth estimates and improved lateral resolution because of the shorter spread.

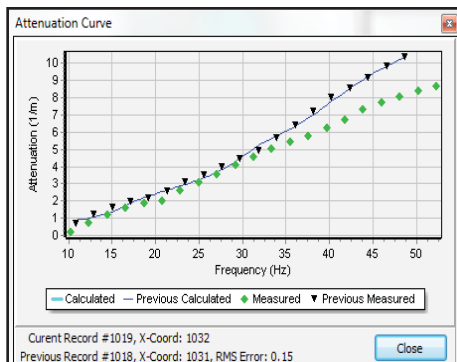
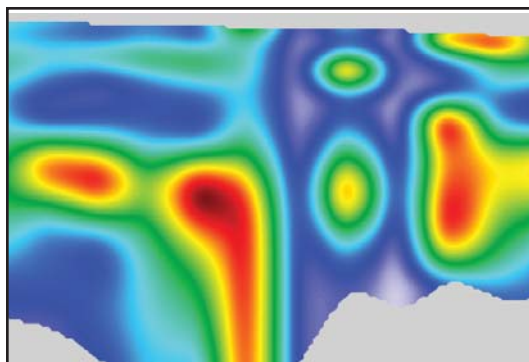
STAY CURRENT!

SurfSeis 6.0-6.7 was released in November 2017. Contact us for new license and license upgrade pricing and visit our webpage for more information.

FOR A QUOTE, SELECT FROM THE FOLLOWING:

- Ver. 6.0 - standard software
- Ver. 6.1 - includes Love wave
- Ver. 6.2 - includes HRLRT
- Ver. 6.3 - includes Love wave and HRLRT
- Ver. 6.4 - includes Qs
- Ver. 6.5 - includes Love wave and Qs
- Ver. 6.6 - includes HRLRT and Qs
- Ver. 6.7 - includes Love wave, HRLRT, and Qs

Qs from Attenuation Measurements

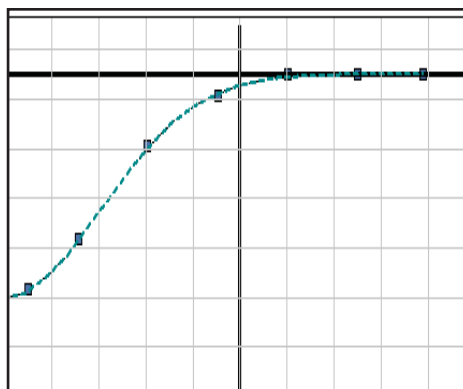
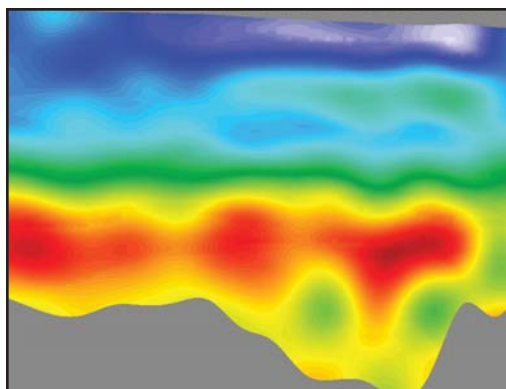


SurfSeis 7

Projected Release - November 2018

Kansas Geological Survey
1930 Constant Avenue
Lawrence, Kansas 66047-3726
USA

2D Kriging Interpolation Optimized by Statistical Estimations



Ph. (785) 864-3965 | Fax (785) 812-0208
SurfSeis Office (785) 864-2176
E-mail: surfseis@kgs.ku.edu
<http://www.kgs.ku.edu/software/surfseis>