SeisWare™
Interpretation Software

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What is SeisWare?

- Seismic data analysis software developed primarily for the oil & gas industry.
- Radargrams ~ seismograms, so it works for radar data analysis, too.
- Integrated mapping, custom projections.
- Only available for Microsoft Windows. (I run it via VMware Fusion on my Mac.)
Radar ➨ SeisWare

• Use SEG-Y format for input data. My IDL utility raw2sgy.pro converts all flavors of SHARAD binary radar data:
  http://nathaniel.putzig.com/research/tools/seisware

• SEG-Y requires a unitary sample rate in µs. raw2sgy presents sample rates of 37.5 ns as 375 µs (×10,000 cheat). Thus, SeisWare delay times of “ms” are actually ×10 µs.

  I will add raw2sgy as an option in CPB.
You will want at least two monitors!

Radargrams & Utilities

Basemap

Cursor tracking
“Seismic” Viewer Features
“Seismic” Viewer Features

2-D and 3-D views

3-D in-line

3-D cross-line

3-D timeslice
“Seismic” Viewer Features

Configurable color tables
“Seismic” Viewer Features

Horizon (reflector) picking, automated & manual
“Seismic” Viewer Features

Horizon (reflector) picking, automated & manual

Horizon times on intersecting radargrams
“Seismic” Viewer Features

Map polygons appear in timeslice view

Picking in timeslice view

Active-tracking between views
Utility Features

Custom coordinate systems
(Input data: lat, lon)
Imagine what I had to do before SeisWare added this feature (Putzig et al., 2009)

Custom coordinate systems
(Input data: lat, lon)
Utility Features

Horizon & grid calculators
Utility Features

Factor of 10 accounts for the sample-rate cheat when converting MOLA elevation to delay time.

Imported MOLA topography

FPB areoid @ sample 1800

c (µs/m)

two-way time

Horizon & grid calculators
Utility Features

Horizon gridding & contouring

Grid And Contour

Name Extension
Gridding Technique:
- Smooth grid
- Use gridding distance (map units)
- Use subsea
- Metric
Data Value To Use:
- Shallowest value
- Deepest value
- All values

Description of Technique:
Minimum Curvature is widely used in the earth sciences. Minimum Curvature generates the smoothest possible surface while attempting to honor your data as closely as possible. Minimum Curvature is not an exact interpolator however. This means that your data is not always honored exactly.

E.g. If the name extension is "RUN1" and horizons is "HZN_A", then the output name will be "HZN_A RUN1 Grid".
Basemap Features
Basemap Features

- 2-D track (rolled)
- 2-D track (non-rolled)
- 3-D crossline
- 3-D grid
- Co-registered background import (MOLA)
- Horizon "ribbons"
Basemap Features

- Active-tracking between views
- Arbitrary polygon editing
Gridded horizons (and contours)
Excerpt from the SeisWare brochure:

www.seisware.com

Seismic Solutions

- 15 seismic line selection options for data display
- Time and depth seismic interpretation
- Integrated synthetic to seismic tie with interactive bulk shift and stretch/squeeze
- Least squares 2D and 3D mistie analysis
- Cloned seismic displays for version comparison and event tracking
- Six horizon pick modes
- 3D auto picking with wavelet and trace correlation options
- 2D auto picking
- Proportional seismic slice generation
- Fault picking in simple and complex environments
- Well planning on seismic sections
- Calculators for seismic, log, horizon, top and grid data with recent calculations saved
- Customizable seismic display properties
EXCERPT FROM THE SEISWARE BROCHURE:

www.seisware.com

NO ADD-ONS
NO MODULES
EVERYTHING YOU NEED TO INTERPRET SEISMIC DATA

Mapping Solutions

- Customizable Basemap displays with object layer ordering and visibility preferences
- Batch gridding and contouring with five algorithms including minimum curvature and Kriging
- Integration with Surfer™ gridding algorithms
- Quick Grid and Contour™ option for gridding displayed horizon and well information
- Quick Iso™ for instant isochron and isopach creation
- Horizon and grid editing and smoothing directly from the Basemap
- Culture creation, display and editing on the Basemap
- Well criteria and well bubble displays
- Tops displayed and colored based upon formation top values
- Log signature curves posted for displayed wells
- Quick volumetrics tool for distance, area and volume calculations
- Raster image display
- Slice display including spectral decomposition and time slice files
- Montage editor for customized plots
Licensing

• Annual fee is currently $9500 per seat.
• Fee is waived if you are a non-commercial, non-profit entity.
• See www.seisware.com for more details.