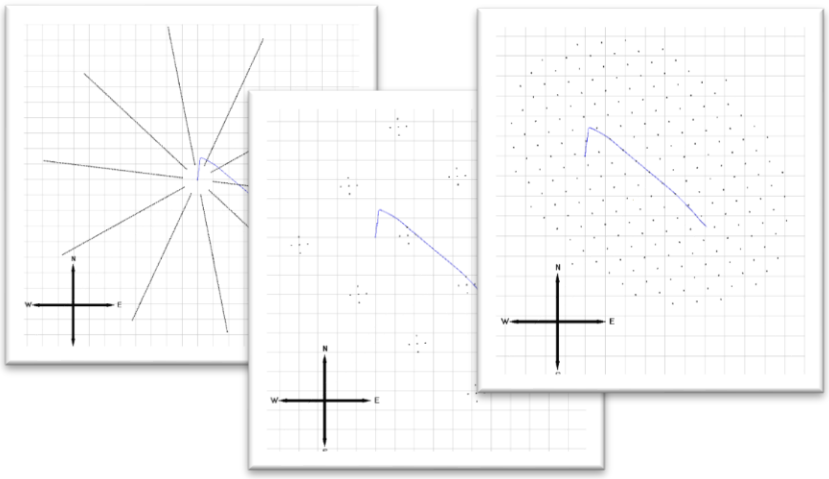
ITASCA™ Consulting Ltd

InSite-Design™

InSite-Design allows the user to inspect, analyse and model seismic array designs in an intuitive way while providing access to a range of advanced tools for manipulating the data. Applicatble to all application including hyrdaulic fracturing, induced seismicity monitoring and lab applications.

Built-in Functionality for Creating all Array Types

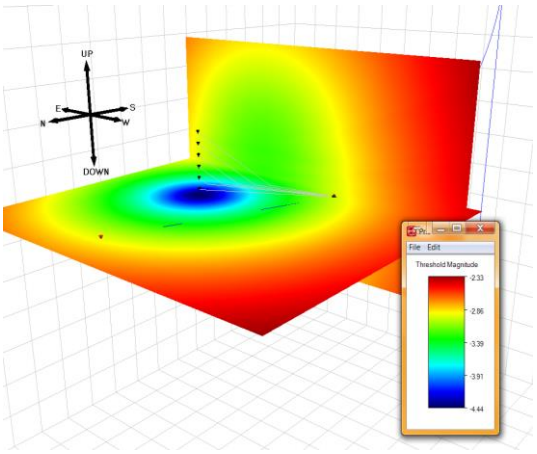
- Downhole
- Star
- Patch
- Grid
- Elliptical grid
- User defined



Magnitude Sensitivity

Calculates the minimum theoretical magnitude for an event to be detected at each point of the monitoring space.

- Choose to use either P- or S-waves
- Choose to use 1- or 3-Component sensors
- Stacking effect available for surface monitoring cases
- Input values for Q factor, stress drop, noise level
- Use average or specified double-couple radiation pattern



DESIGN

Survey design tools to plan arrays and meet specific experimental or engineering objectives.

ACQUISITION

Data acquisition and processing with customisable triggering settings. Realtime options.

PROCESSING

Manual and automated waveform processing with efficient workflows. Sophisticated location algorithms.

INTERPRETATION

Full 3D visualisation of events and objects with intuitive movement through scene. Enhanced interpretation of microseismic clouds.

UNDERSTANDING

Improve understanding of mechanics with calculation and visualisation of moment tensors.

InSite-Design™ is developed in a version controlled environment within a quality management system. InSite™ has been available as a commercial product for two decades and has been used by leading companies, academic and research institutes world wide for the processing, visualisation advanced analysis of acoustic emission and ultrasonic data.

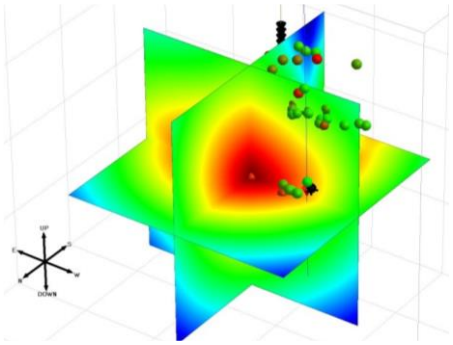
For more information on any of our products or services please visit us on the web at:

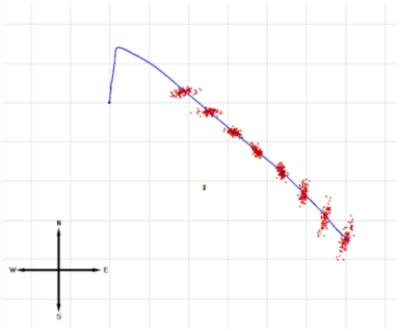
itasca.co.uk

Location Uncertainty

Location uncertainty is determined by running a Monte Carlo simulation to analyse the impact of uncertainties in event location processing.

- Model pick time uncertainty, velocity model uncertainty or both
- Ray tracing algorithm for theoretical travel times
- Use of only P-wave picks, P- and S-wave picks, and source vectors
- Visualisation as clouds of events, angular uncertainty or error space planes

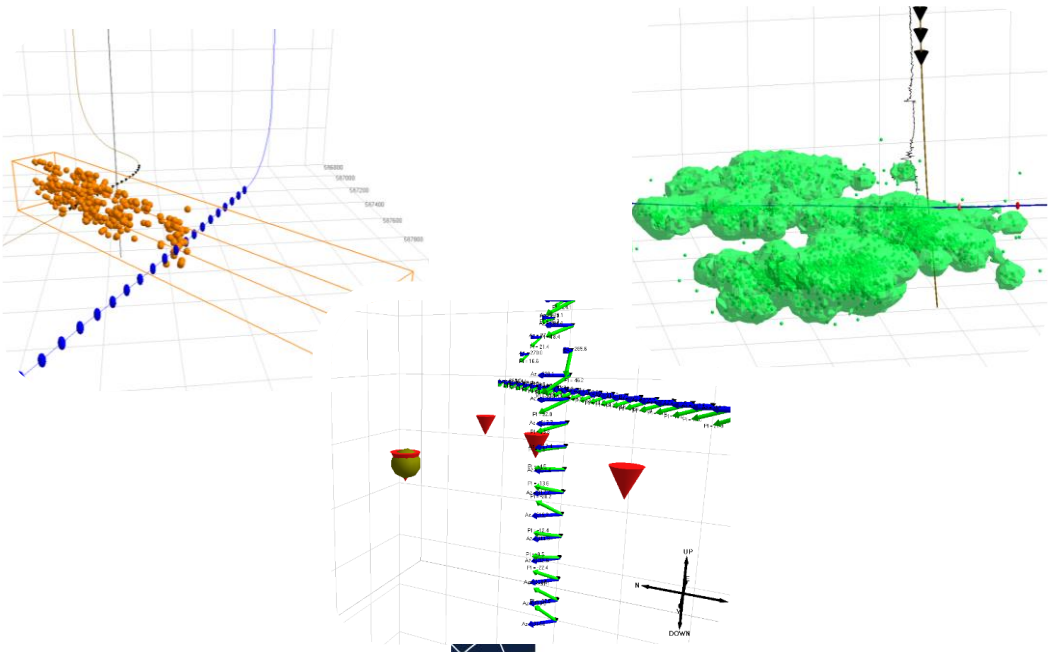




Advanced 3D Visualiser

Display of event locations in a 3D scene, allowing rotating, panning, magnifying and flying through the scene

- Playback mode showing time-dependency of events
- Display of density planes within the 3D scene
- Insertion and manipulation of complex 3D objects such as hot planes, wells, borehole logs, formation tops, boxes, density planes
- Save multiple camera positions for routine plots



TECHNICAL SUPPORT

Annual Maintenance Support Program includes technical support, service updates, new tools, exclusive web content extensive documentation and full-version upgrades.

PREMIUM SERVICE

Premium Service Plan combines consulting and training in addition to our conventional technical support. PSP can be used for direct one-on-one training and/or assistance in setting up your project. You are in control.

CUSTOM SOLUTIONS

Our toolbox of processing, visualisation and network functions are under continual development. Customised developments can be commissioned.

QUALITY ASSURANCE

The software has been available as a commercial product for 20 years. Documented algorithms. Benchmarked and tested against synthetic seismicity.

For more information on any of our products or services please visit us on the web at:

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