AE monitoring of a true triaxial test- Imperial College London example - Locations

ITASCA
Consulting Ltd

Microseismic Geomechanics: Increased understanding; reduced risk

InSite Lite

- InSite™ Lite is the free version of Itasca Consulting Ltd.'s InSite Seismic Processing software suite, provided with limited functionality and features.
- The examples shown here are taken from ICL and its partners projects.
- InSite's proprietary project (*.pcf) files contain all the configuration, event information and links to waveforms necessary to run a project in InSite. Double-clicking on the .pcf project file launches the InSite software application.
- The InSite project waveform data (*.esf) files include the results from the data processing. These files are imported for the project (.pcf file) through the data import management tool in InSite. Please note that not all of the available example projects are provided with example waveform data.
- For information on the operation of the InSite software, please refer to the product help files.
- For information on purchasing the full version of the InSite software, please contact us at support@itasca.co.uk

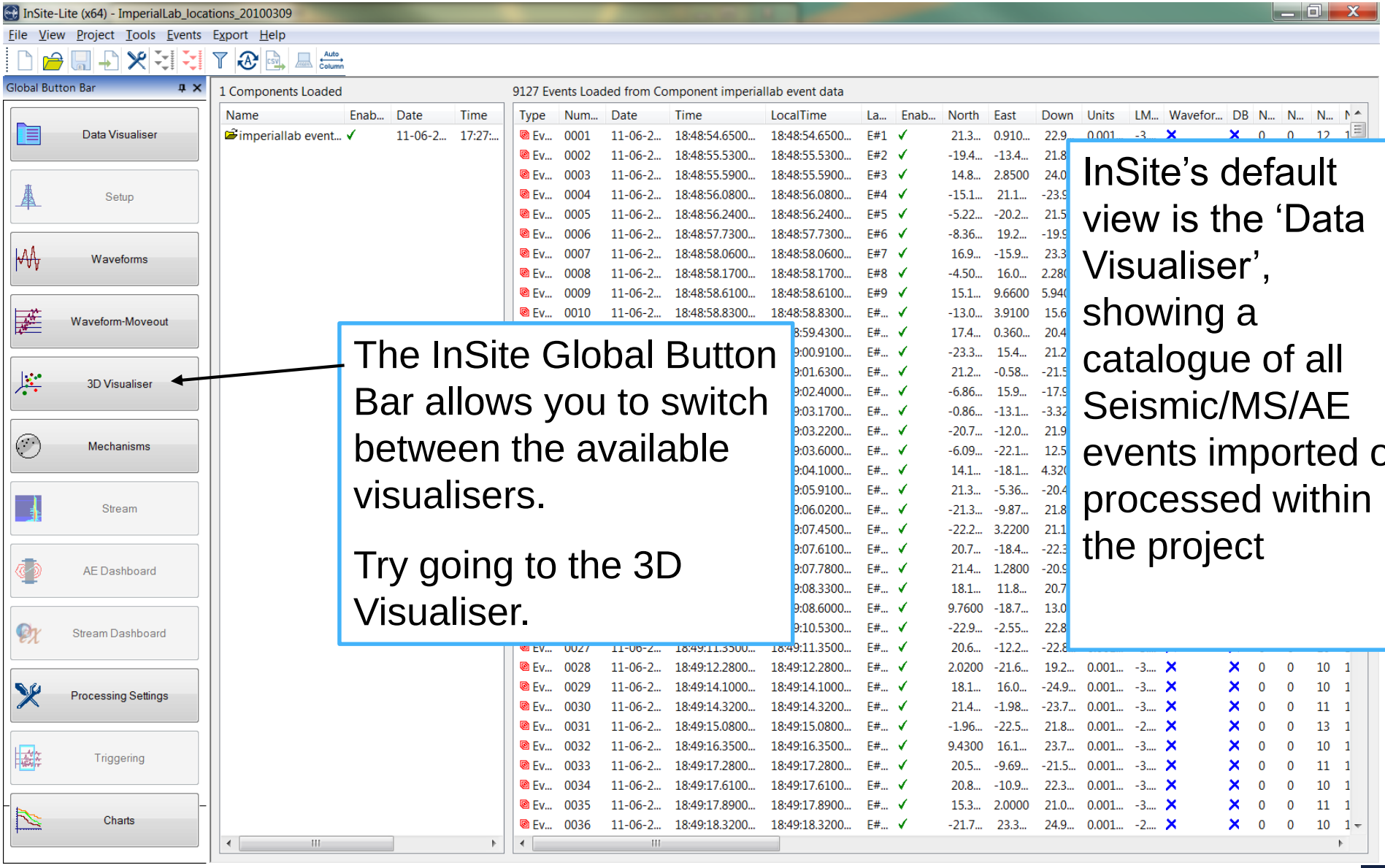
Example Features

- This example uses AE location data from a true-triaxial test on a cubic sandstone sample. Source mechanisms have been determined for these events.
- The data is from a laboratory experiment at Imperial College London for the EC-funded SAFETI project.
- The AE imaged the creation of fractures that grew as uniaxial stress was increased. The events were compared with model data.
- The following slides give you some options to try in the software.

It's a good idea to …

… run through the "ImperialLab" demo presentation first as this gives a more thorough overview of the Location Visualiser and Mechanism Visualiser.

Navigation: Data Visualiser



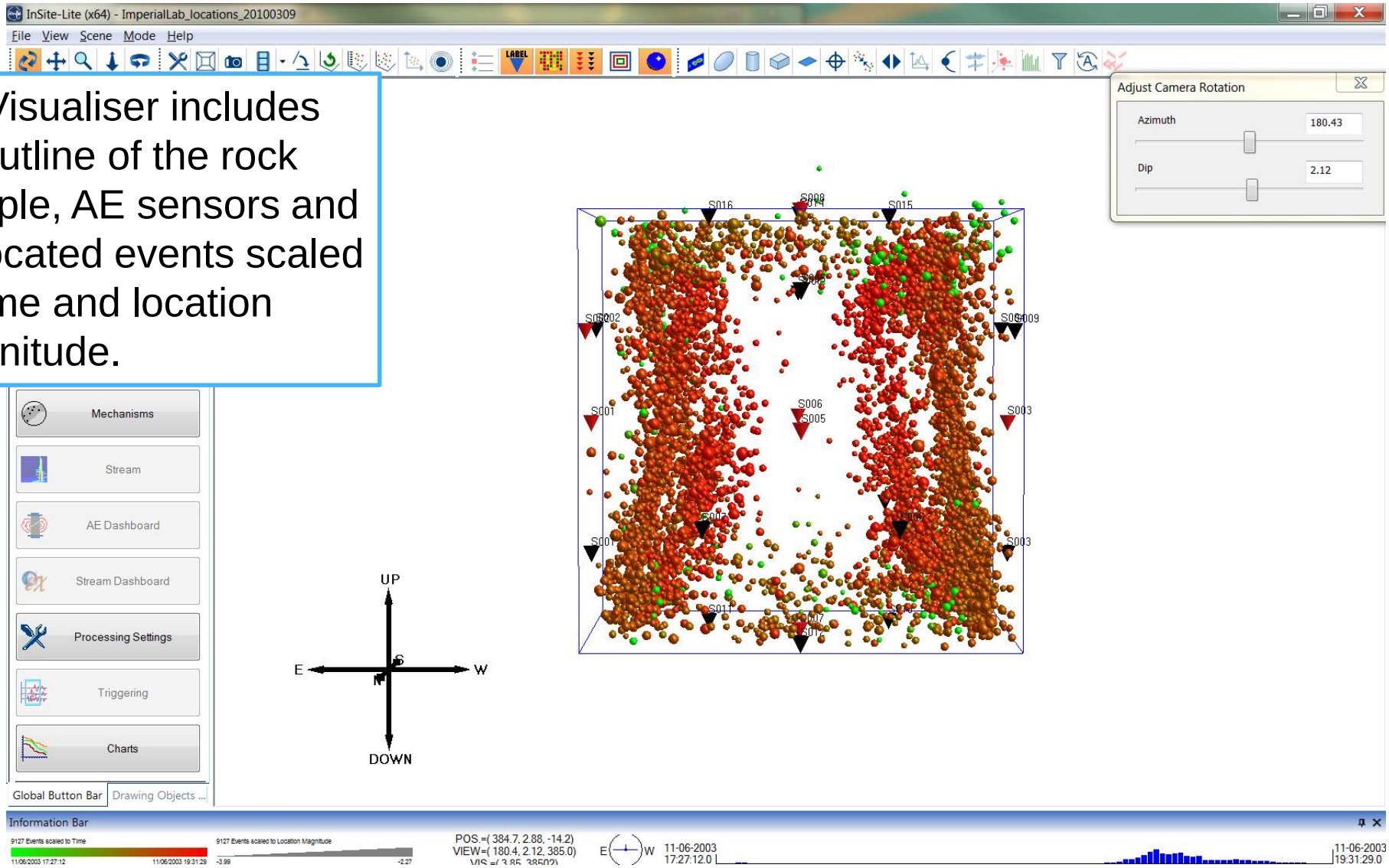
The InSite Global Button Bar allows you to switch between the available visualisers.

Try going to the 3D Visualiser.

InSite's default view is the 'Data Visualiser', showing a catalogue of all Seismic/MS/AE events imported or processed within the project

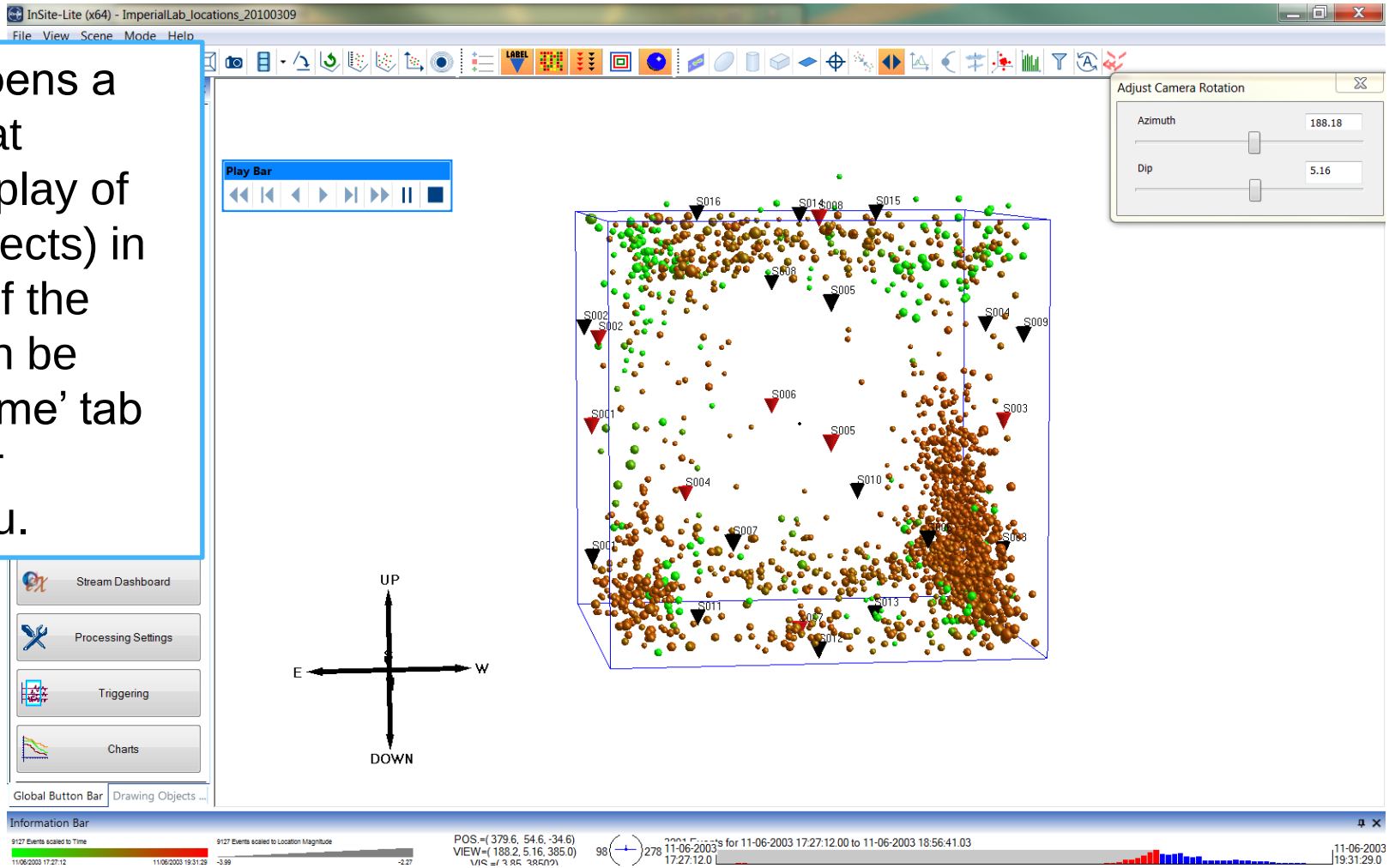
3D Visualiser I

3D Visualiser includes an outline of the rock sample, AE sensors and all located events scaled to time and location magnitude.



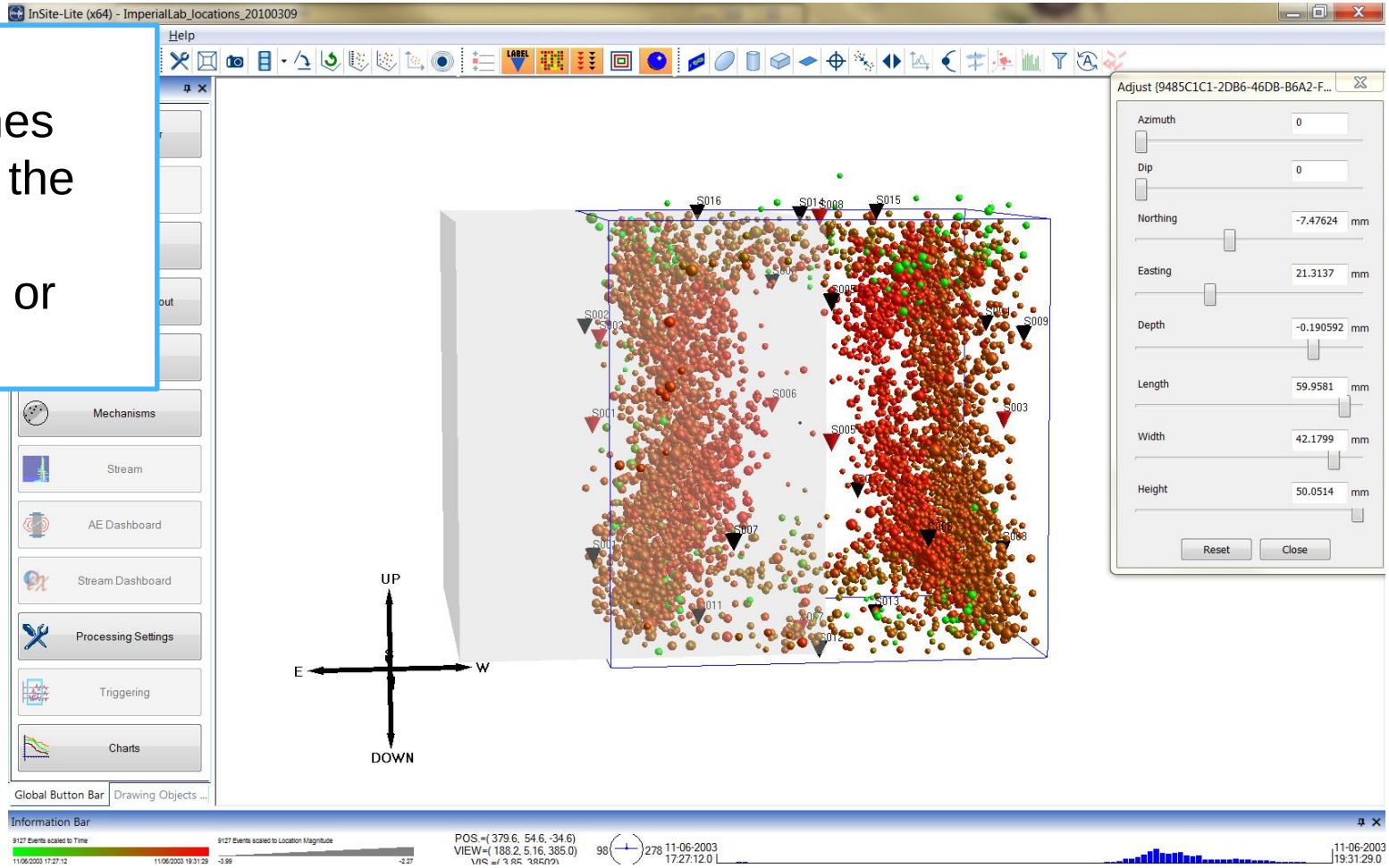
3D Visualiser II

‘Play events’ opens a video player that controls the display of events (and objects) in time. Settings of the time display can be edited in the ‘Time’ tab of the visualiser properties menu.

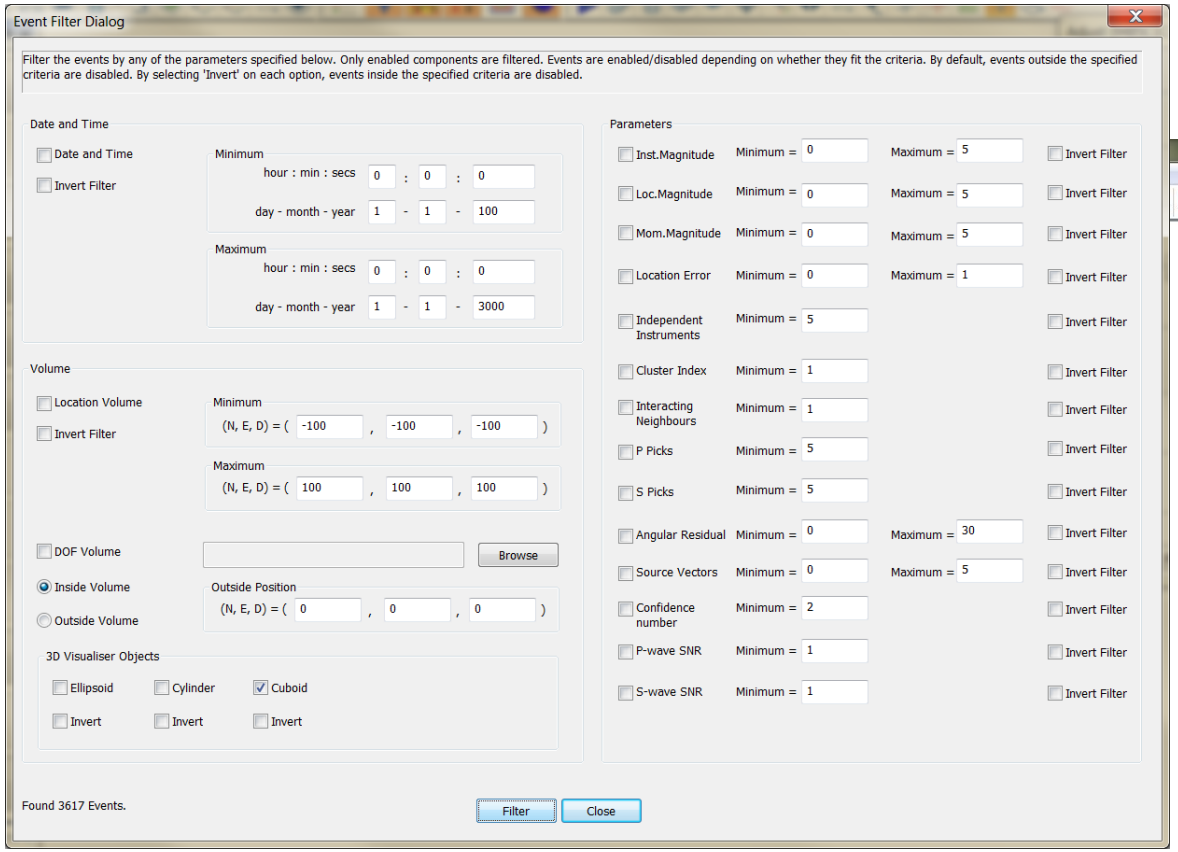


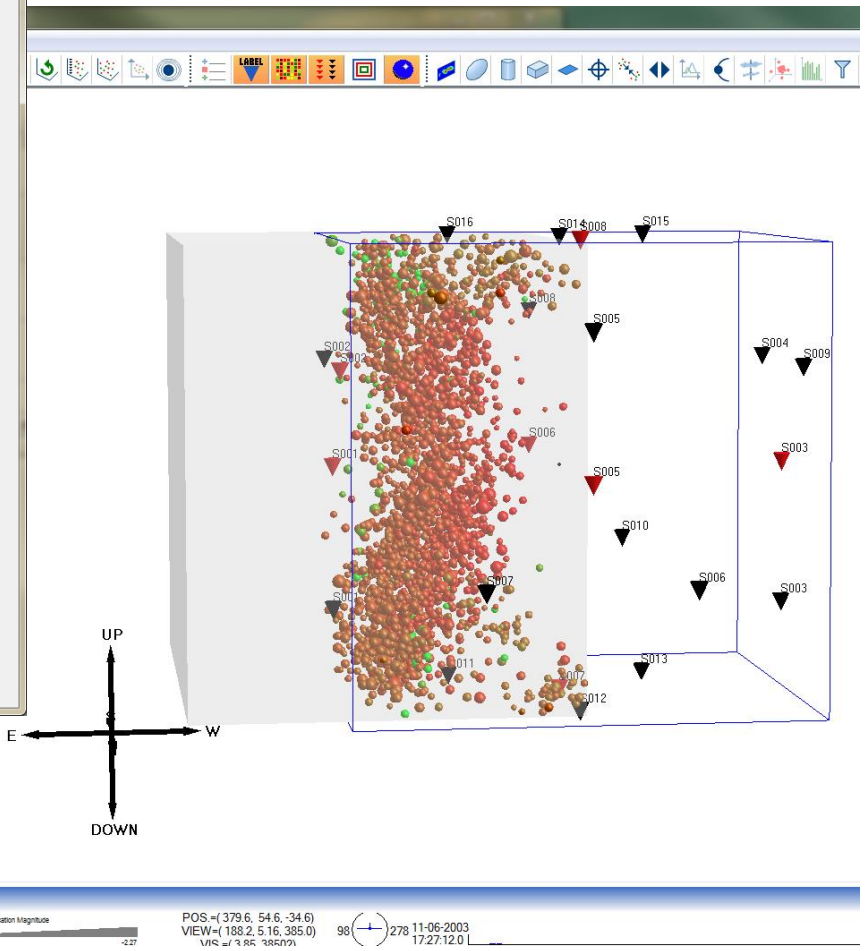
3D Visualiser III

Cuboid, ellipsoid, cylinders and planes can be inserted in the scene to highlight observed features or filtering events



3D Visualiser IV





Event filter disables or enables events using a range of parameters, time or space, including drawing objects. This examples shows filtering of events inside the inserted cuboid