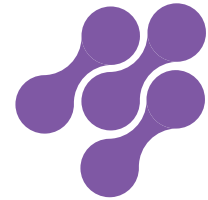
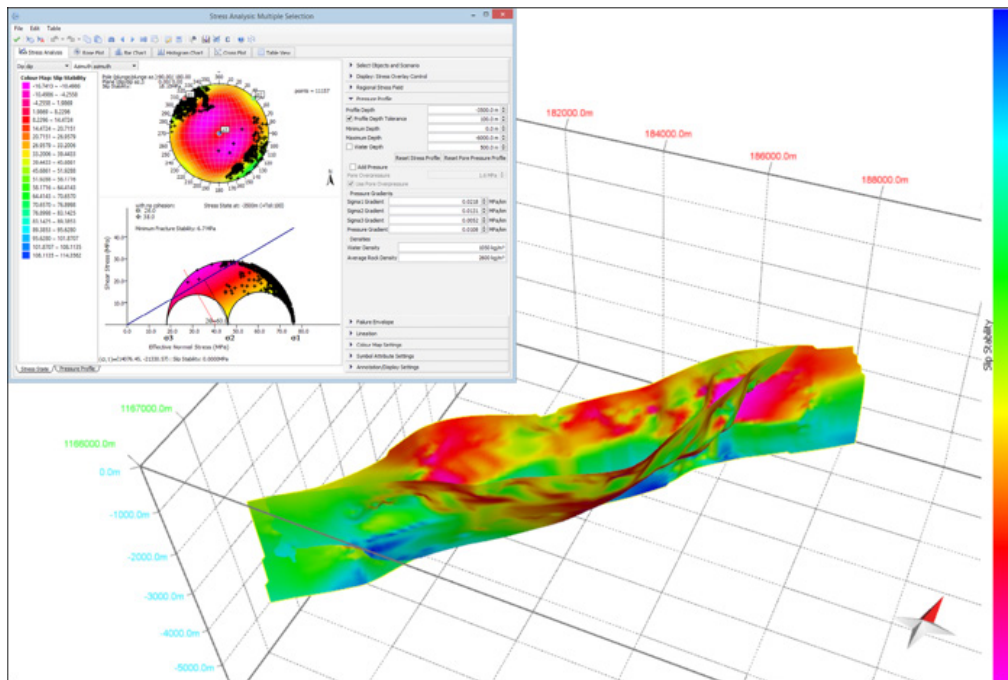


Stress Analysis



A graphical tool for analysing and understanding the stress response behaviour of fault and fracture systems

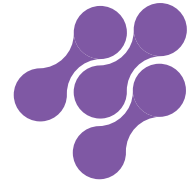


The Stress Analysis module enables you to rapidly visualize and evaluate 3D stress states and potential fault and fracture activity.

This information can then be used to build and analyse a wide range of scenarios encountered in reservoir and mine planning, CO2 storage, waste disposal and other engineering applications, where it is essential to understand the likely failure envelope of key structural features.

Evaluate the risk of leakage within reservoir seals, predict mineralisation potential and geotechnical failure. Test a series of principal stresses and pressure profiles through depth, taking into consideration hydrostatic, pore and lithostatic pressures.

Stress Analysis



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Features

- Compute stress attributes for slip tendency, dilation tendency, fracture stability, slip stability, retention capacity and leakage factor of planes and lines.
- Visualize and evaluate critically stressed planes in a 3D view. Any orientation data selected on the stereoplot or Mohr diagram is simultaneously selected in the 3D model.
- Visually display shear and normal stress values for ease of use on the Mohr diagram when moving the cursor over the stereoplot.
- Use colour mapping to show a colour scale of the current displayed stress attribute that is plotted on the stereoplot and Mohr diagram at a specific depth.
- Define and display pore pressure profiles.
- Quickly estimate which fracture sets and fault planes are more likely to fail or reactivate by looking at the colour map: warmer colours indicate the faults more favourably orientated to failure in a user-defined stress state.

New for 2018

- New algorithm called Focal Mechanisms, which has its own sheet of options in the Stress Analysis tool.
 - Derive all necessary attributes and focal plane orientations from fault plane and rake information only (rather than deriving this from moment tensors).
 - PT Direction Plot (tensile T and compressive P).
 - Beachball display within the stereonet plot for a single selected focal mechanism.
 - Beachball display for Map Views and 3D Views with beachball scaling capabilities.

