



transgen

ADVANCED STRUCTURAL MODELLING FOR FLOW SIMULATION

In faulted reservoirs the physical properties of the fault rocks have a major impact on the production efficiency. Faults which may have leaked over geological time can be non-transmissive over shorter, production time scales. Although reservoir simulation packages are unable to use fault data explicitly, the physical effects of the faults can be incorporated as transmissibilities and/or transmissibility modifiers.

The EarthGrid system within TT6 allows direct comparison between the framework model (including seismic) and the upscaled reservoir model. This facilitates an excellent QC process, allowing the geologist and engineer to be certain that faults that have the most hydrodynamic impact are correctly represented in the upscaled model.

TT6 now incorporates a whole suite of advanced fault modelling functionality as part of its TransGen module. In addition to transmissibility mapping within the upscaled model, TransGen can evaluate and quantify the effects of drag and relay ramps at a sub-grid cell scale. It can also handle sets of additional faults that are not part of the explicit model geometry. The fault properties themselves are completely controllable by using our modifiable presets of standard relationships or with the sophisticated code plugin system.

Featuring a scenario-based architecture and simple but powerful batch processing interface it is easy to run multiple fault models, producing multiple sets of transmissibility data for history match tests.

