Streamlining Seismic Interpretation Within the 3-D Workspace

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There are numerous time-consuming components within a typical seismic interpretation workflow. These include; reducing mis-picks and over-interpretation into fault zones, constraining auto-tracking operations to input data, developing structurally viable geometries, focusing on geometrically influential parts of the data and rapidly highlighting subtle structures.

In this contribution we present new methods and tools that enhance the routine interpretation of seismic data within Petrel[TM]. We have implemented both well-established and newly developed algorithms to help tackle these tasks more efficiently. These methods provide users with visual properties in the form of attributes on the interpretation data, to allow the interpreter to rapidly identify potentially problematic parts of the interpretation or sections that are critical in controlling the geometric form of the surface. Examples will be presented from the South Gas Basin, offshore UK and the Gulf of Mexico.

These tools enable the interpreter to focus on the critical parts of the data and therefore improve the accuracy and efficiency of the seismic interpretation workflow. The fundamental aim of these tools is to allow the interpreter to develop better interpretations which more closely honour both the data and current geological thinking.