Velocity calibration and time-to-depth conversion

Jason® DepthMod™ is a velocity model calibration application that ensures calibrated models can be used to convert time data (inversions) to depth, which ties well tops. Part of the Jason Workbench, DepthMod can calibrate velocity functions for use in re-depthing – ensuring that depth volumes provided by clients tie wells. Designed for engineers and quantitative interpretation teams who must plan wells in depth, DepthMod can obtain accurate reserve estimates and well planning in depth.

Facilitate time-to-depth conversion in reservoir characterization projects

The purpose of the Jason DepthMod application is to calibrate velocity models to well tops in depth and to perform time-to-depth (TD) conversion:

- Interactive velocity calibration and correction
- Time-to-depth conversion
- Create a TD relation and assign it to selected data files. The assigned TD relation can then be used to view the files in Jason Viewers in both time and depth. It also facilitates depth inversions by admitting depth inputs to selected Jason applications.

The DepthMod workflow is designed to handle all the circumstances which might arise in the completion of reservoir characterization projects:

- No wells available, horizons only
- No wells available, horizons and seismic velocities only
- Horizons and wells available
- Horizons, wells, and seismic velocities available
The Jason advantage
Complex, fully 3D models incorporating lateral velocity changes and faults can be used to effect accurate time-to-depth conversions about User-defined time and depth datums.

Key features
- **DepthMod** has been designed to calibrate velocity models for time-to-depth conversion and depth-to-time conversion within selected Jason applications. This makes Well Tieing, Wavelet Estimation and Inversion with depth inputs possible. A wide variety of initial data scenarios are addressed.
- **DepthMod** consists of three main elements:
  - Velocity Calibration: to ensure that depth conversions from time tie well log tops in depth
  - Time <-> Depth Conversion: to convert any horizon data or any property data from time to depth or vice versa, using a calibrated velocity model
  - You can also create and assign a TD relation to selected files or directories

Impedance from seismic inversion was converted to depth. Two prospective sandstone intervals were defined and mapped.