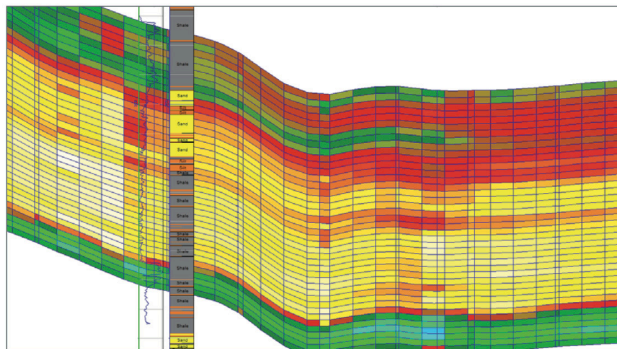


Quickly and Easily Create and Update Models

EarthModel[®] software architecture is based on the unique *UpdateAbility* concept. As a workflow is built, the system automatically records and documents every step so that a complete history of the workflow is available at every stage of the project. As data changes or is added, all necessary processes will automatically run and keep the reservoir model current and dynamic.

Seismic to Simulation

EarthModel Complete combines surface mapping, integrated structural modeling, reservoir property modeling, upscaling and direct output to most flow simulators all in one package. Together with the advanced reservoir characterization techniques in **Jason**, the workflow from seismic to simulation is fully supported.



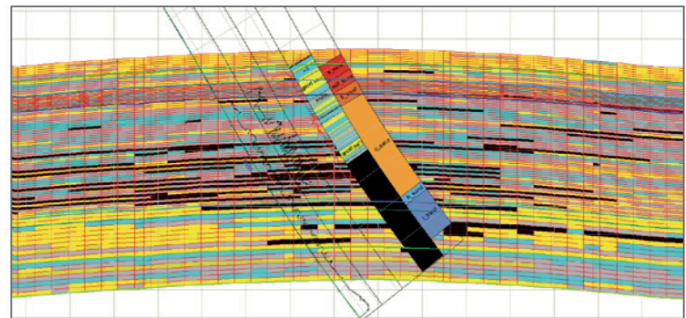
Porosity model distribution with porosity and facies well log curves.

Structural Modeling

EarthModel Complete handles complex models with large numbers of faults. Assistants in the system guide you through all the steps to make it easy to deal with many faults and horizons. *UpdateAbility* is fully embedded in this process so that the model can be easily and quickly updated when data inputs change. This includes and is not limited to surface and fault handling and building grid meshes.

Reservoir Property Modeling

Reservoir properties, such as lithofacies, porosity and permeability, can be determined by using geostatistical techniques within **EarthModel**, or in combination with **Jason**'s seismic-driven reservoir characterization methods. This empowers **EarthModel Complete** to be fully entrenched in the seismic to simulation workflow, combining the best in reservoir modeling with the best in reservoir characterization.



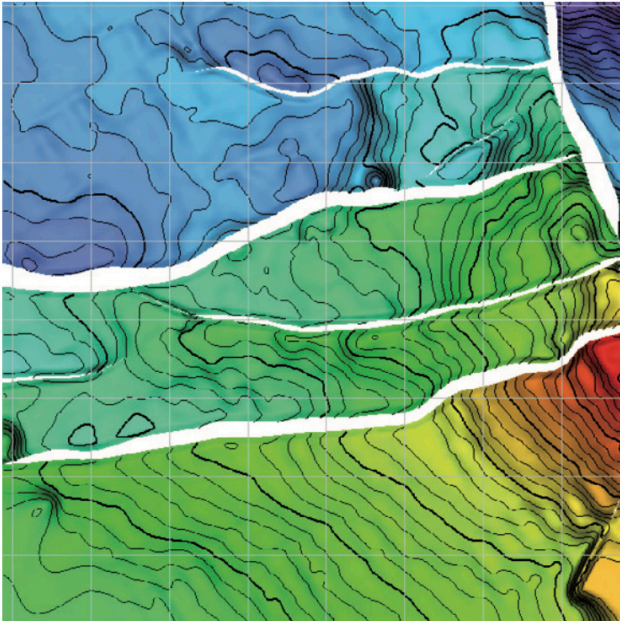
Cross section through the 3d model. Well with log of facies and zone descriptions. Back ground of xsection is displaying facies distribution.

Key Features

- Powerful mapping and structural modeling with emphasis on complex faulting and volumetric calculations
- Sophisticated stochastic geocellular and object modeling with volumetric analysis within the reservoir model
- Flexible communication with the flow simulator, including fully-featured single-phase upscaling and transmissibility modifiers
- A special technique for upscaling from trace-based seismic grids to corner point grids, for simulators or geological modeling
- *UpdateAbility*, a breakthrough in modeling technology, provides automatic rapid updates when data has changed or been added so you can always keep models current and updated
- Tools to exchange data and models for reservoir characterization and inversion workflow studies within the **Jason** software or to external modeling software packages

Reservoir Data QC and Visualization

EarthModel Complete provides all necessary tools to investigate and quality control your input data and results as well as create inputs for additional modeling workflows. The system provides tools for cross plots, histograms, variograms, cross sections, 2D maps and displays, plus full 3D graphics to view all elements of your project. Assistants in **EarthModel** link commonly used functionality, bring together viewers and parameters, and facilitate rapid movement between different items for investigation during modeling.



Map view of a contoured surface with blanking where faults have cut the surface.

Risk and Uncertainty

EarthModel Complete enables Knowledge Management in geologic modeling. UpdateAbility makes evaluating “what if” scenarios easy and natural. By just changing a few input parameters, you can set up a variety of Monte Carlo simulation runs and explore different interpretations, multiple modeling scenarios and options for production.

Upscaling

EarthModel Complete offers comprehensive upscaling options for petrophysical properties, including a pressure solver method for permeability. It also offers **RockScale[®] Zonal Adjustment[™]** technology for accurately converting model properties from trace-based seismic grids to the correct stratigraphic layers in corner-point grids.

Operating System Requirements:

64-bit versions versions of the following are supported:

- Windows[®] 7 (professional and ultimate), with latest service packs installed
- Windows Vista[®] (business and ultimate), with latest service packs installed
- Windows[®] XP (professional), with latest service packs installed

Note

Single-core processor is sufficient. Multi-core processor will speed execution of some algorithms.

Hard drives

- SATA-II hard drive with enough space for your data
- Guideline is 10 GB for small projects, 100 GB for mid-size projects, and >100 GB for large projects

Memory

- For 64-bit systems, 4-8 GB for small projects, 24-64 GB for mid- sized projects, 64+ GB for large projects
- Graphics card 512 MB NVIDIA[®] OpenGL[™] 3.0 capable video card

Interoperability

EarthModel Complete has data exchange formats with the following:

- OpenSpirit[®] – An industry standard link to data bases for: (grids, properties, faults horizons, wells, logs, tops, seismic, polylines, boundaries)
- RESCUE[®] – Industry common data exchange format for reservoir model including (grids, properties, faults, surfaces, wells, logs) binary files
- Schlumberger – Surfaces (cps3)
- Petrel[®] – Plugin within Petrel[®] to import and export data including grids, properties, faults horizons, wells, logs, tops, seismic, polylines, boundaries
- Landmark – Surfaces (Zycor) and faults
- ESRI – Shape files (shp, shx)
- Eclipse[™] – 3D grids and properties to eclipse simulator
- LAS – Well curves and tops data can be exchanged using LAS 2 and 3 formats
- SEG Y – Seismic data file format
- Text file and spread sheets – General importer for any data file where format can be generated for wells, logs, tops, point sets, polylines, boundaries, annotations