

Providing a **bedrock** for structural geology

2D Structural Modelling in a 3D World

2DMove is a powerful software tool that uses analytical procedures to build validated, balanced and scale-independent palinspastic models. These incorporate burial histories and carry the original seismic interpretation to assist geologists and managers in developing concepts and managing interpretation uncertainty.

2DMove works with sections, which can be evolved backwards and forwards through time at the click of a mouse. You can quickly evaluate whether a geological interpretation makes sense and concentrate on exploration and recovery activities.

2DMove has a complete range of tools to build, balance, restore and analyse your sections at a local and regional scale. These include depth conversion, restoration and forward modelling, isostasy,

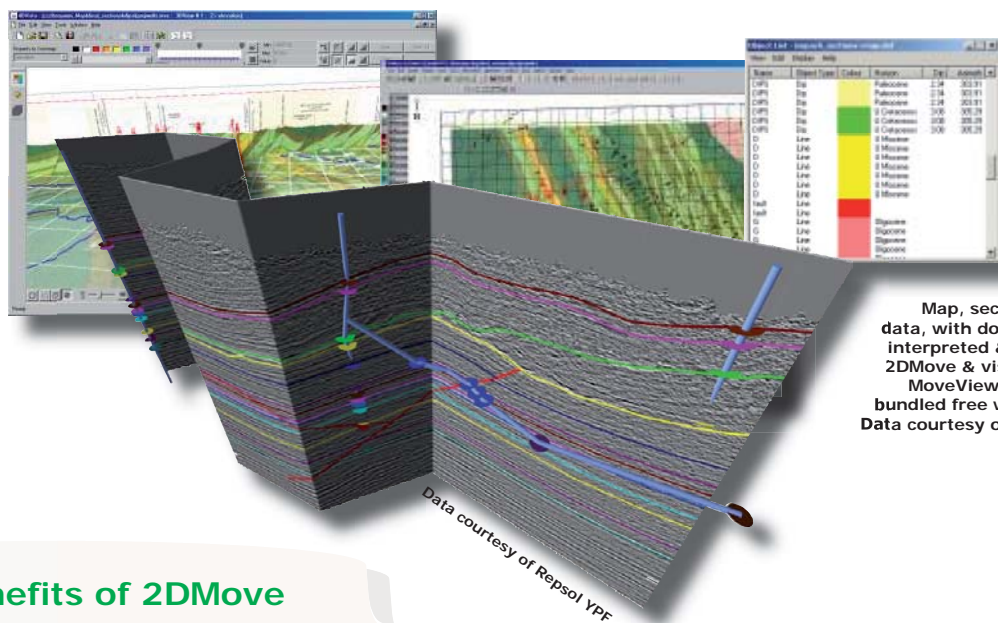
decompaction, and burial history. For example you can incorporate the effects of footwall uplift in extension, or loading during inversion & thrusting, into your model along with compaction and fault related folding.

Whether you are a wild cat explorer, an interpreter working with 2D or 3D seismic data or a reservoir geologist, 2DMove enables you to get the most out of your data & concepts. It really does tackle those "what if" & "is it like this" questions in a rigorous & effective way. Developed as a flexible product to pick up & use at any time with advanced data management & update capability, as well as an extensive analysis toolset, it is the ideal tool for the exploration or operation geologist.

Seamless integration with the other Move components link 2DMove directly with 3D modelling.



The best 2D section construction, validation and structural analysis tool with 3D visualisation



Map, section and well data, with dogleg seismic, interpreted & analysed in 2DMove & visualised with MoveViewer - software bundled free with 2DMove. Data courtesy of Moose Oils.

Data courtesy of Repsol YPF.

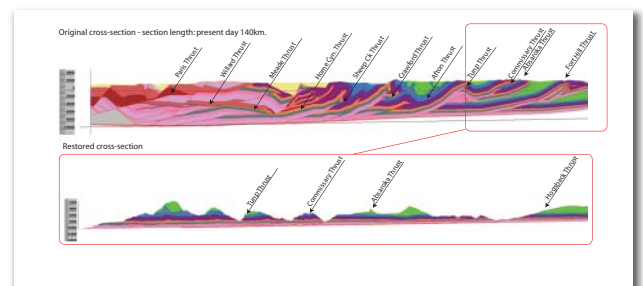
Functional Benefits of 2DMove

Use 2DMove to quickly develop and test geological concepts and carry out detailed project style work with maps & linked sections.

- Work rapidly and effectively in or out of the office on a laptop or workstation.
- Simple & Flexible to use - intuitive software that you can pick up & use immediately.
- Integrate and visualise your data in 2D & 3D using the Move Data Link.
- Update new well survey and dipmeter data automatically across your project with linked map and sections.
- Have confidence in creating structurally constrained sections.
- Evolve models backwards & forwards through time and assess the timing of critical geological events.
- Quickly load & restore your seismic interpretation and associated SEG Y.
- Develop a more accurate fault trajectory and depth to detachment model.
- Communicate your ideas and dynamic processes clearly, using movie style animations & 3D visualisation.
- Provide valid input for other modelling such as paleogeometries for basin modelling.

2DMove supports multiple document views, SEGY and image display and real-time working allowing geologists to test alternate ideas on the spot. Emphasis has been placed on ease-of-use, efficiency, flexibility and well designed workflows.

- Applicable to all **tectonic regimes**.
- Extensive **data transfer** including interpretation data, well, field, CAD, SEGY and images formats.
- **Seamless integration** with Move components for advanced structural modelling workflows & analysis. MoveViewer comes with every Move licence providing **3D visualisation** of all data allowing excellent communication of results to colleagues and business partners.
- Advanced **map/section interaction** with support of multiple sections in one line of section and non linear sections.
- Extensive **well and dip projection** functionality including auto projection & auto well and tops/dip data update across multiple sections on arrival of new data.
- Suite of structurally constrained **section construction** tools including fault & bed construction for interactive editing enabling rapid building, checking, and modifying of interpretations.
- Database with **stratigraphic properties** for direct links to modelling & section construction algorithms.
- Linear & non linear SEGY & image insertion, on-screen interpretation & **seismic restoration** workflows.
- Extensive **Depth Conversion** functions.
- **Full kinematic algorithms**: Restoration & forward modelling; Decompaction with either Airy or Flexural Isostasy; Compaction History Analysis: Unfolding/shearing (flexural slip, inclined shear, line length); Move on fault (fault parallel flow, inclined shear, trishear); Block Restoration.
- Extensive **Dip Data Orientation Analysis** including plotting, contouring, principal component analysis, suggested section orientation and much more.
- **Variety of outputs** such as: movie style animation, scaled hardcopy, pasting directly into MS Office and graphics packages.
- Produce **Balanced sections, Palaeo sections** or **quantitative analysis** for 3D structural modelling, Basin Modelling & Reservoir Characterisation.



Present day section (top) with kinematically restored section (bottom) highlighting potential decoupling in upper section and erosion. Data courtesy of James Coogan, 1994. La Barge, Wyoming.

Can I quickly check the validity of my interpretation in 2DMove?

Yes. You may already have an interpretation from seismic data, well data and/or field data or an interpretation onscreen in 2DMove - these can all be validated using the simple block restoration technique. You can do this in section view carrying the SEGY with the interpretation and calculating the area misfit. This method is quick, simple and invaluable. Once problems within the model have been identified, 2DMove is then used to solve the issues and create a balanced section. The loop-tie capability and co-cursor tracking between map and section help integrate 2DMove into the interpretation workflow.

How can I communicate geological concepts to my colleagues and test alternative models?

In a variety of ways, 2DMove enables you to visualise your data as both a 2D or 3D view and the SEGY & seismic interpretation as a one off document or as a movie style animation of your workflow process. It is also the perfect program for communicating concepts, testing ideas and answering questions, such as - What is the depth to detachment? Is it possible for the reservoir to be present underneath the salt? Is this a true structural geometry or is it an imaging issue? Due to the flexibility and extensive toolset available within 2DMove, it allows you to quickly test out concepts, scenarios and geological models to help answer your questions. Restoration in real-time makes it ideal for explaining your ideas to others.

What about updating my well data as we drill?

Yes. 2DMove is a great environment as a data hub because it is quick, flexible and easy to edit and update, as well as giving a 3D spatial dimension to your data. The extensive well data import and update options, map and section view interaction, support of multiple sections in one line of section, automatic and flexible dip data projection functionality and numerous section construction tools mean that updating well data, creating sections and updating of sections from dip data are all seamless workflows.

How does the integration between the Move products help me?

Within the Move framework you can visualise and communicate your 2DMove project in 3D with MoveViewer. Integrate a 2DMove project with GIS data and construct surfaces from your sections or carry out statistical curvature analysis (SCAT) on your dipmeter or field data in 4DMove. Use 2DMove to carry out workflow and sensitivity testing when modelling in 3DMove or create your 3D structural framework model from your 2DMove sections by using 3DMove's geoconstrained construction tools.