

VelPro

Power enough even for the most difficult post-stack velocity modeling challenges in an easy-to-use package

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VelPro

The industry's most flexible and comprehensive

VelPro provides an easy-to-use, flexible and scalable solution designed to seamlessly integrate seismic and well velocity information, horizons, faults and well tops into a robust and data-driven velocity model. Interpreters can focus on building a model based on the data at hand rather than on complex interfaces, software-imposed workflows and time-consuming workarounds. Dedicated velocity modeling specialists will find a robust set of tools that will help them solve even the most complex of their velocity modeling challenges. Its ability to function as a standalone or add-on tool means that it can complement your favorite application.

VelPro's ease of use, flexibility and scalability can help interpreters and depth conversion experts build high-quality velocity models in record time.

- Provides tools for rapid velocity model building
- Quickly and easily shifts between time and depth
- Enables users to build calibrated velocity models quickly and easily over large regions
- Works well within existing software environments

Robust, easy-to-use data loading tools

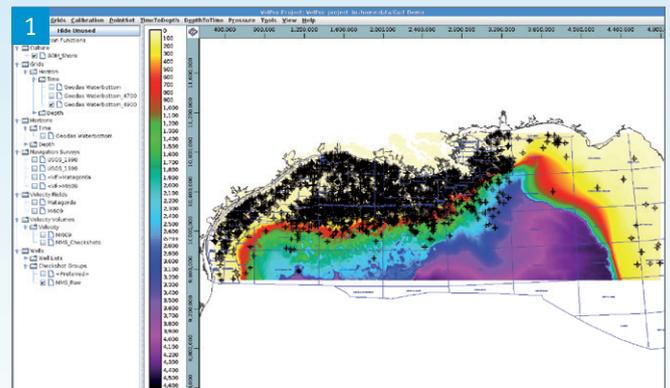
Creating a **VelPro** velocity model begins with loading any combination of seismic velocity data, well top, check shot and time-depth curves, seismic horizon or fault information you have available. A wide variety of tools including both ASCII loaders and OpenSpirit 3 connectivity ensures that you can quickly and easily load key velocity or interpretive information. **VelPro** supports the integration and use of both 2D and single or multiple 3D-based sets of seismic velocity information.

Focus on the data not the software

VelPro provides a set of interactive quality control and editing tools that will help you quickly identify and correct data quality problems before the start of a modeling exercise. Its easy-to-use interface provides a seamless environment for integrating a wide variety of subsurface velocity and structural information into a consistent velocity model. Transparent conversion between average and interval-based views and between time and depth-based views means **VelPro** allows the data to define the workflow.

High quality results at any scale

The **VelPro** environment scales to meet any velocity model building challenge. **VelPro's** library of gridding algorithms provides the flexibility needed to fulfill velocity modeling goals at both the prospect level and basin level. Basin-scale models no longer have to be a challenge because **VelPro** makes it easy to combine information from multiple surveys and sources.



post-stack velocity modeling application

A better, faster, more complete workflow – all within the CGG GeoSoftware product family

Benefits of VelPro include:

- Quickly identify and correct data quality and distribution problems
- Build robust velocity models at prospect, regional, or basin scale
- A workflow-based user interface makes building velocity models simple to understand and easy to accomplish
- Apply Eaton or Eaton-Bowers methods for computing pore pressure volumes for your project
- Develop empirical relationships between sonic or resistivity logs and surrounding velocity data to create pseudo-check shot information
- Bridge the gap between depths derived from PSDM data and well data
- Convert interpreted horizons, grids and seismic volumes from time-to-depth or from depth-to-time based on your velocity model

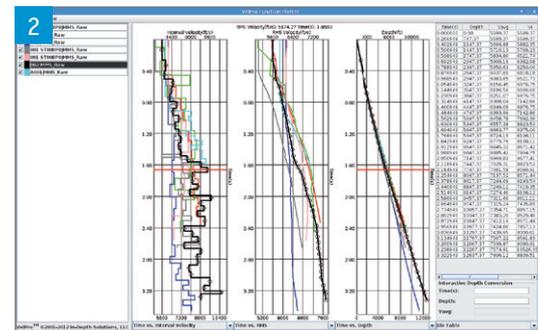
Figure 1. Build regional models as easily as prospect level models.

Figure 2. VelPro’s Function Editor provides a graphical interface for investigating, editing and manipulating project velocity data.

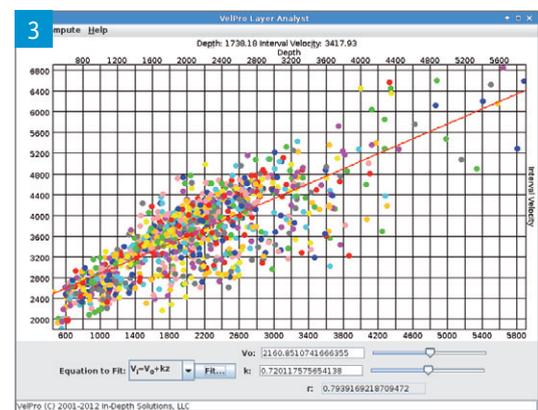
Figure 3. The Layer Analysis tool provides a statistical view of velocity trends within selected geologic layers.

Figure 4. Create pore pressure predictions using the Eaton method.

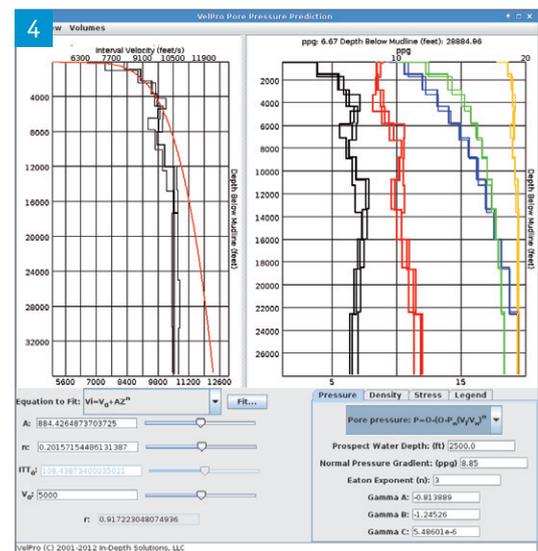
QC your velocity information



Data-driven



Advanced workflows



CGG GeoSoftware

CGG GeoSoftware provides the industry's preferred comprehensive set of software products and support for E&P multi-disciplinary teamwork. High-end, cross-product workflows enable a better understanding of reservoir properties and how they evolve through the life of the field. GeoSoftware helps reduce reservoir risk and uncertainty in seismic reservoir characterization, velocity modeling, advanced interpretation, petrophysics, rock physics, AVO and geological modeling. The GeoSoftware portfolio includes **HampsonRussell, Jason, InsightEarth, PowerLog, EarthModel FT** and **VelPro**.

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