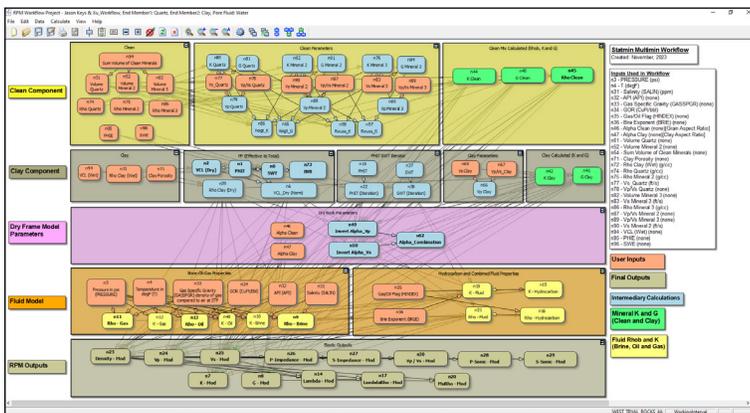


Rock Physics Analysis and Modeling

Rock Physics Module (RPM) is a rock physics add-on software module for **PowerLog®**. It integrates **PowerLog** well log analysis with rock physics elastic modeling. **RPM** enables a fundamental modeling approach – a petrophysical rock model is used to derive rock structure information and effective elastic rock properties from fluid and mineral parameters. The model parameters are calibrated by comparison of the synthetic to the available elastic sonic logs. **RPM** supports inclusion models and contact models including Stanford cemented spheres scheme 1 and 2.



RPM workflows are visual and easy to understand.

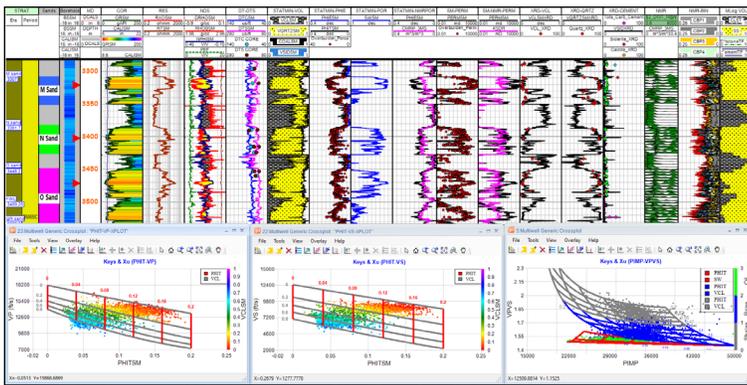
You can easily analyze fluid-substitution studies and invasion correction once a rock model is constructed. The rock model also enables prediction of elastic curves for lithology parameters that are not present in the wells.

The PowerLog and Jason Advantage

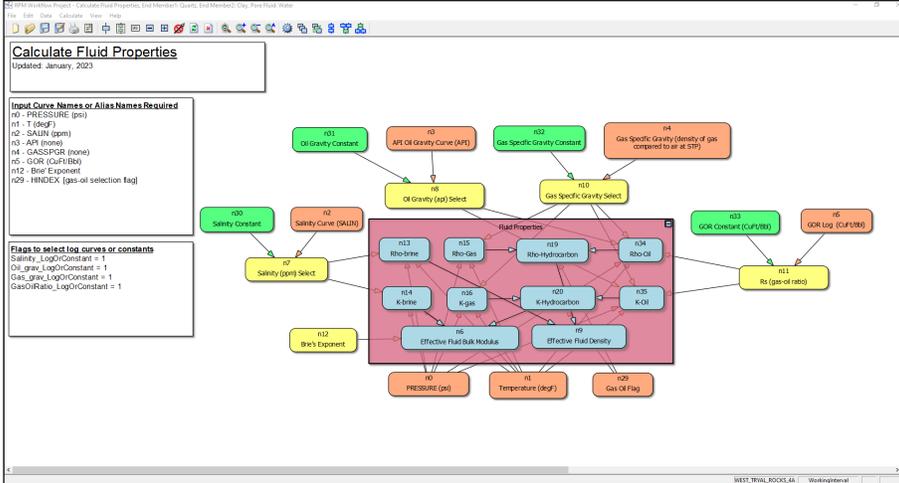
RPM is the bridge between **PowerLog** and other **Jason®** applications. This user-friendly module is integrated with **PowerLog** and **Jason** so you can iterate your petrophysical parameters using rock physics models in **RPM** and improve your petrophysics interpretation. Additionally, use the same **RPM** workflow in **Jason** for seismic validation and take it forward to inversion studies.

Key Features

- Provides multiple models of fluid and mineral compositions
- Integrated with petrophysics, both deterministic and statistical
- Workflow-oriented
- Customizable and easy to share workflows
- Advanced rock physics models and QC tools
- Easy to learn and use



PowerLog viewers provide tools for analyzing Petrophysics and Rock Physics results together



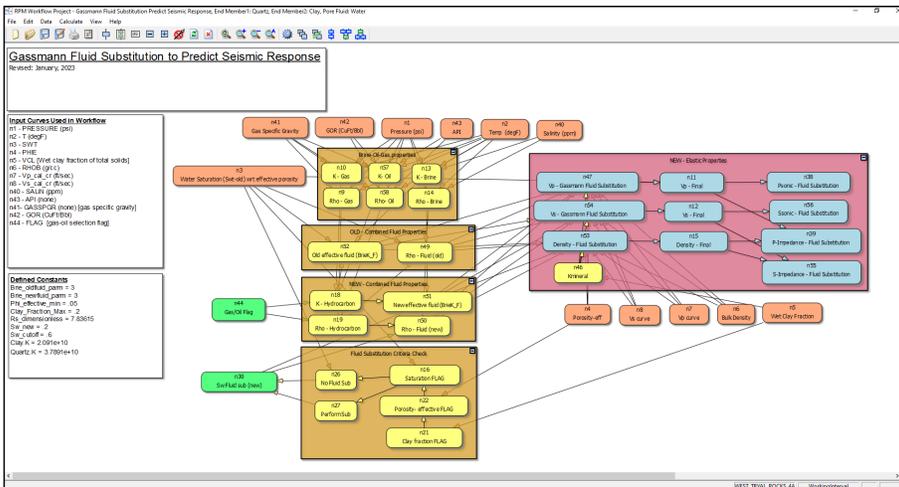
Pre-defined fluid properties calculator in RPM

User Driven

For beginners and intermediates, **RPM** offers several quick and easy to use pre-defined workflows covering different stages of Rock Physics Modeling such as fluid properties calculation, Gassmann fluid substitution, etc.

For advance rock physics practitioners, **RPM** allows for high degree of customization on rock physics modeling workflows.

Node based approach allows for easy identification and editing of each rock physics function's inputs and outputs.



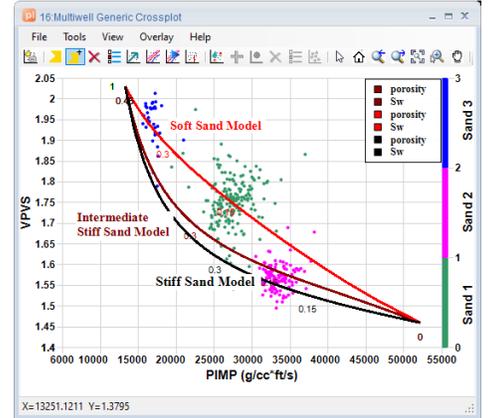
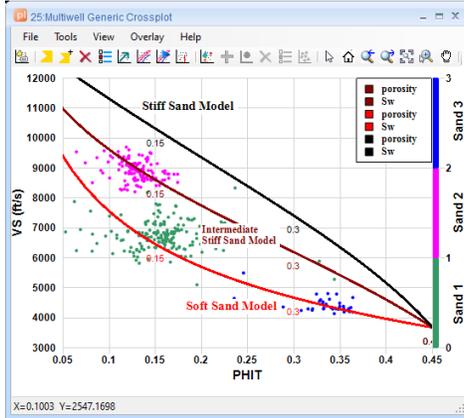
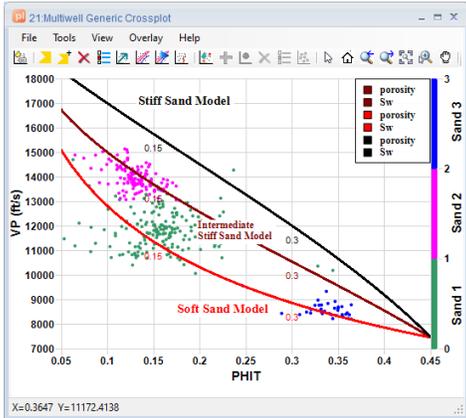
Pre-defined Gassmann fluid substitution in RPM

Petrophysics and Rock Physics Integration

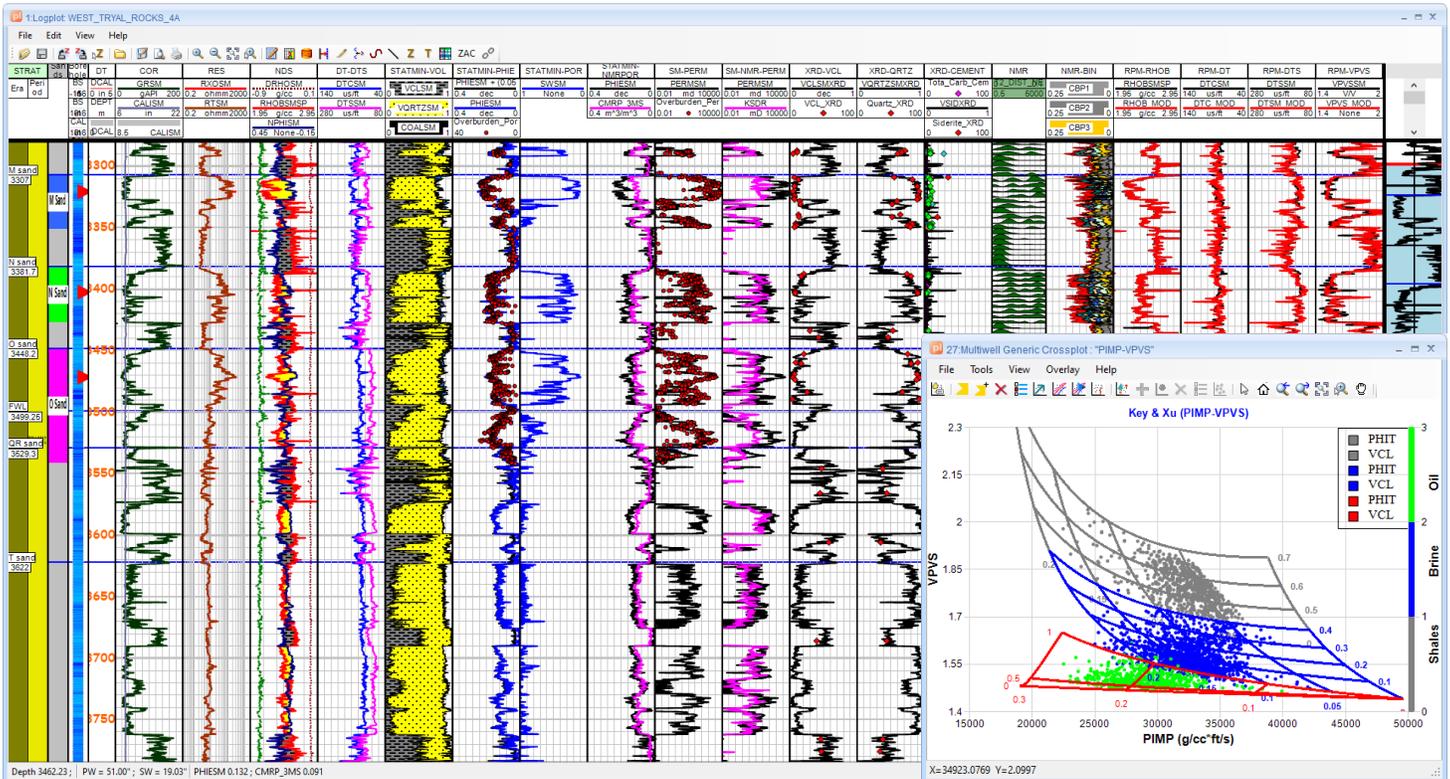
Integration with **PowerLog's** petrophysics allows for realistic and faster scenario modeling by varying mineral volumes, porosity and fluid saturations.

PowerLog's deterministic and statistical multi-mineral capabilities integrated with RPM, allows for easy incorporation of more than two minerals for rock physics modeling.

PowerLog and **RPM** work in sync, offering more accurate and realistic rock physics diagnostics and modeling results.



Rock Physics Diagnostics with PowerLog and RPM



Elastic properties output from RPM and interpretation using Rock Physics Templates



PowerLog and RPM Integrated Workflow

PowerLog offers multi-well petrophysics and rock physics capabilities on the same platform. This integration allows the users to perform GeoSoftware's integrated and iterative petrophysics and rock physics modeling workflow for better subsurface reservoir characterization.



Integrated and Iterative Petrophysics and Rock Physics workflow for wells

PowerLog is an industry leading software for well data management, petrophysics and rock physics modeling.

With **PowerLog**, users can easily QC available well data, perform petrophysical evaluation and take it forward for rock physics modeling in a comprehensive and consistent way. **PowerLog** allows integration of conventional logs, core, NMR, Image logs etc. to produce optimal petrophysics and rock physics results for better subsurface insights.

PowerLog is the software of choice for performing any integrated and iterative petrophysics and rock physics modeling studies.