Geolog™ 20 is the newest version of Emerson E&P Software’s industry-leading solution for formation evaluation and petrophysical analysis. This release expands the advanced capabilities available in Geolog, and makes both assessing reservoir properties and reporting information easier than ever.

**Faster and easier access to your data**
Geolog 20 has been designed to provide easier access to your data with the ability to rapidly access your recently used wells with minimal mouse clicks. In all views in Geolog 20, a new ribbon-like toolbar and menus with intuitive icons help guide users to the functionality they need.

Geolog 20 builds on the array of data visualization options provided in Geolog. It delivers a new well progress plot which presents an interactive view of well activities against depth over time and provides a useful summary of the activity in any given well. The automated reporting functionality in Geolog has been expanded to cover the Geosteering workflow, allowing the creation of detailed status reports using user-defined templates during geosteering operations.

**Additional petrophysical functionality to meet today’s challenges**
Petrophysical analysis is at the heart of Geolog, and Geolog 20 delivers new functionality across all areas of this discipline, for both log and core data.

The core analysis workflow has been reorganized to expose the functionality in a more intuitive way. A new interactive core depth shifting tool has been introduced to help ensure that when depth shifts are made, these maintain the depth context of individual core measurements.

Geolog 20 includes a new combined deterministic petrophysics workflow that replaces many individual modules with one process to rapidly perform all the steps of an analysis. An interactive Klein (Butterfly) plot is included for the interpretation of thin beds.

Many new tools for evaluating unconventional shales are included in Geolog 20. New analysis modules include computation of kerogen type, maturity and potential; Vitrinite Reflectance and computation of LOM; and a new Xplot interactive adjustment of LOM for use in the Delta LogR method.

Geolog 20 features a major upgrade to Russian logging tool support, with greatly expanded support for Russian tools and the addition of petrophysical methods to meet the specific requirements of the Russia/CIS market.

In Geolog 20, Multimin, Emerson’s optimizing solution for petrophysical analysis, continues to evolve with the addition of an option to set uncertainties on any input parameters to a model and export an array of possible outcomes for logs.

**Streamlined processing and interpretation of NMR data**
This release features significant enhancements to Geolog’s NMR processing and interpretation workflow, which has been reorganized to improve ease of use and streamline data preparation, inversion and interpretation, resulting in reduced time from loading of raw data to delivering and reporting results.
Geolog 20

New advanced borehole image processing techniques
Pad-based electrical images which feature inter-pad gaps can now be transformed into complete images using a new image inpainting technique. This technique employs a fast marching method to create data to fill in the gaps, resulting in images suitable for input to further machine learning-based image processing routines. New SCAT and derivative plots have been added for presentation and structural interpretation of the results of the image log processing.

New tools in the Facimage electrofacies analysis toolkit
The capabilities of Facimage are further increased by the introduction of a new interactive tool to assess the best predictors (best combination of inputs) for any given predicted log. This allows the quantification and visualization of the performance of any combination of inputs for a given analysis. This feature is a powerful addition to the toolkit, and will help with the efficient classification of new data sets.

Expanded customization and connectivity
Geolog 20 provides expanded options for data exchange with other platforms and includes connectivity to the latest versions of Schlumberger’s Petrel software, up to and including Petrel 2020. Surfaces from Emerson’s RMS geological modeling can be directly read into Geolog for use in guiding interpretations. In addition to connectivity to individual software systems, Emerson is fully committed to supporting the Open Group’s industry-wide OSDU (Open Subsurface Data Universe) initiative and Geolog 20 is Emerson’s first product release to offer the ability to connect and consume data from OSDU data stores, supporting the OSDU R1 and R2 releases.

Interoperability
In this release, Geolog connects to all of the latest versions of Petrel*, including Petrel 2020 (* a mark of Schlumberger).
All Epos™-based applications enable interoperability with third-party data stores, including:

- OpenWorks® R5000.10
- GeoFrame® 2012
- Recall™

System Specifications
- 64-bit Red Hat® Enterprise Linux® 7.1 and above
- Microsoft® Windows® 8.1, 10 (64-bit)

The Emerson E&P Software Advantage
- Vendor independence gives users the freedom to choose the best tools for each task, with no conflict of interest.
- Fully scalable and customizable, Geolog meets the needs of users, from generalist geologists, to expert petrophysicists, to engineers working in field development.
- An intuitive, interactive, Windows-style interface optimizes usability and ensures a short learning curve.
- Integration with other Emerson E&P Software products provides access to a full range of industry-leading solutions.

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