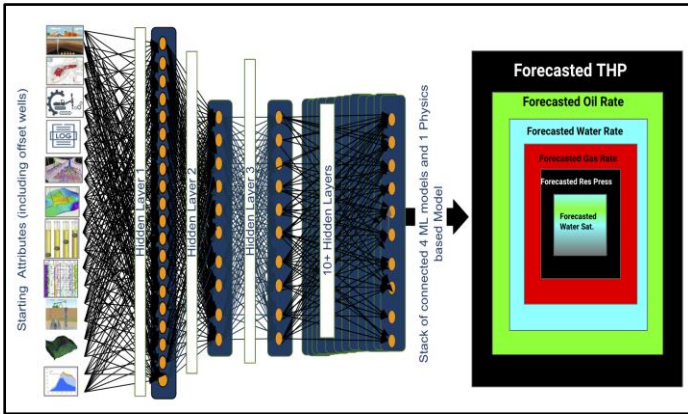# OgesOne ARM Application

AI-Based Reservoir Modelling: Innovative approach for production optimization and forecasting

ARM Capabilities
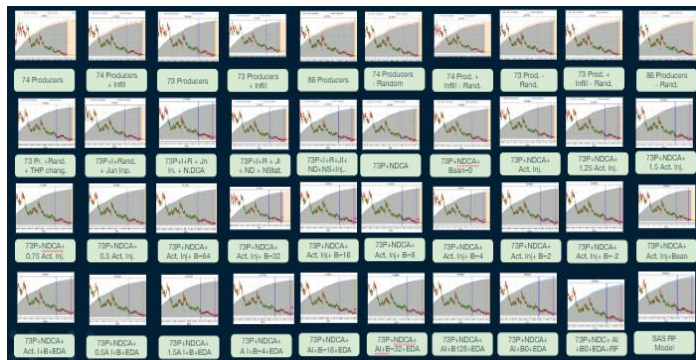

ARM algorithm is a complex mixture of time series forecasting using ML regression techniques to solve complex reservoir behaviours.

Application gives flexibility to run 1000s of model iterations and save multiple outputs for analysis.

Detailed view of simulation runs for reporting possible outcomes from multiple perspectives.
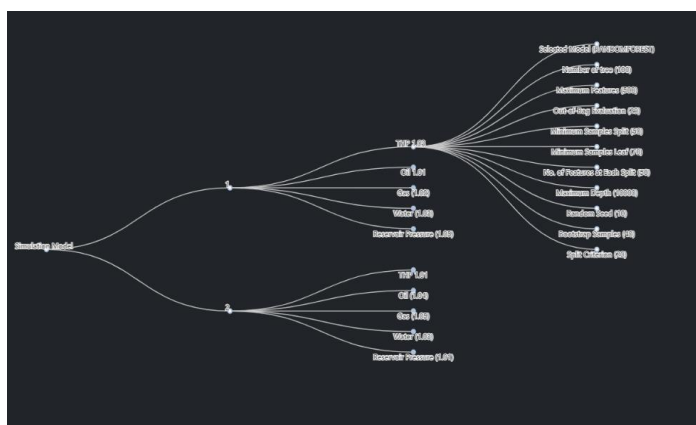
Better Approximation of Remaining Reserves

The complex nature of reservoir behaviour limits the capacity of industry experts to obtain maximum production from a particular field.

Moreover, prevalent methods have their own limitations and assumptions. With an increase in the percentage of aging oil fields, it is imperative for oil and gas companies to look beyond conventional methods of reservoir modelling to maximize production from available matured fields.

Ogesone ARM application can help reservoir engineers to quickly access the production potential of a field and rejuvenate aging mature fields.

Challenges

Conventional methods of reservoir modelling have reached a plateau in drawing new insights.

• **Anomaly in prediction.** Uncertainty in geo-cellular model and physics-based equation.
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• **Expensive.** Man-days of highly experienced engineers and expensive software are involved.

• **Large Infrastructure.** High computation power required to solve complex differential equations.

Our Approach

AI-based Reservoir Modelling application helps to leverage developments in the Data Analytics & ML space to harness these technologies for optimizing production from mature oil fields.

Creation of data driven reservoir model incorporates use of numerous analytics & other machine learning techniques to analyse, train, validate and visualize

Autotuning history provides transparency on the number of possible scenarios runs and best possible hyperparameters scenario.

the reservoir. This technique allows easier updating of the models with additional data (if available) such as core analysis, well tests, pressure, and seismic data which can reduce the uncertainty associated with the results.

SAS, in partnership with Oges, together can help by providing:

• Standard data connectors that allows connection to existing databases used by reservoir planning team.

• Data management and data quality tools to clean data critical for generating insights.

Benefits

SAS Partners with Oges to make use of domain knowledge with SAS' enhanced analytical capabilities, anticipating better accuracy in production forecasting. We approach the problem by providing software and services to help you:

- **Decrease operational expenses.** Reducing model building time and involved resources allows you to act faster, SAS saves you money.
- **Automated process.** As month-on-month production data progresses, SAS can automatically associate new data points and update existing models, giving better approximations for next 6 months by incorporating the current trend from the latest date.

For more information, please visit: https://oges.co/   Contact: saurabh@oges.co and ryan.wen@sas.com