SpeedWise Reservoir Opportunity
Streamlined Opportunity Identification and Geologic Insights

SpeedWise® Reservoir Opportunity* (SRO) is a fully automated cloud solution that applies advanced computational algorithms and data mining techniques to multi-disciplinary data. These advanced technologies enable reservoir geoscientists and engineers to collaboratively make data-driven field development and recompletion decisions, and optimize vertical, deviated, and horizontal well plans.

Breaking Down Work Silos

A collaborative, secure, native cloud-based environment enhances asset team efficiency by allowing all members to work together to identify selection criteria and evaluate opportunity risks. Breaking down multi-disciplinary silos helps mitigate missing and incomplete data, for more confident field development planning.

Fast, Flexible and Reliable

SRO delivers fast, flexible and reliable workflows that are unmatched in the industry. Workflow automation can lead to time savings of over 90%, cutting workloads from months to weeks, and in some cases hours. Asset teams can run many more scenarios in any timeframe and spend more time vetting the opportunities. The final result is better risk management and shorter decision-making cycles.

Advanced customization methods provide users with the flexibility to choose the most appropriate options for their reservoir, and adapt their work to unique geologic and production complexities, such as depositional environment, fracture prevalence, extensive baffle layers, vertical communication, and reservoir compartmentalization.

* Patent pending

The core algorithms are data-driven, integrate multi-disciplinary datasets, and leave little room for user bias or subjectivity, allowing consistent assessment and evaluation with repeatable results. The algorithms reflect two decades of experience and proven results on fields around the world.

Quick Opportunity Identification

The fully streamlined SRO framework builds a comprehensive opportunity inventory designed to increase production and reserves while improving capital efficiency. To identify these opportunities, SRO automates several geo-engineering workflows, including:

- Drainage Analysis: Estimate drainage volume for each well in each zone using several data-driven methodologies to account for the complexity of various assets including volumetric, rate-based, facies-constrained methods.

- Engineering Analytics provides clear picture of past and current state of the reservoir and includes contact analysis, Flow Unit Allocation (FUA), AI-based decline curve analysis, and more.

- Remaining Pay Interpretation: 3D drainage analysis workflow that considers perforation locations, log interpretations, baffle layers, fracture networks, fluid contacts, perforation strategy, and production allocation.

- Optimal Target Search: Optimized cellular search algorithm designed to maximize a target quality-based objective function given a provided search domain as well as target configuration constraints.

- Probabilistic Production Forecasting: Multiple approaches including neighborhood statistical methods, machine learning models (e.g. ANNs, CNNs), and physics-based analytical and upscaled parametric models.
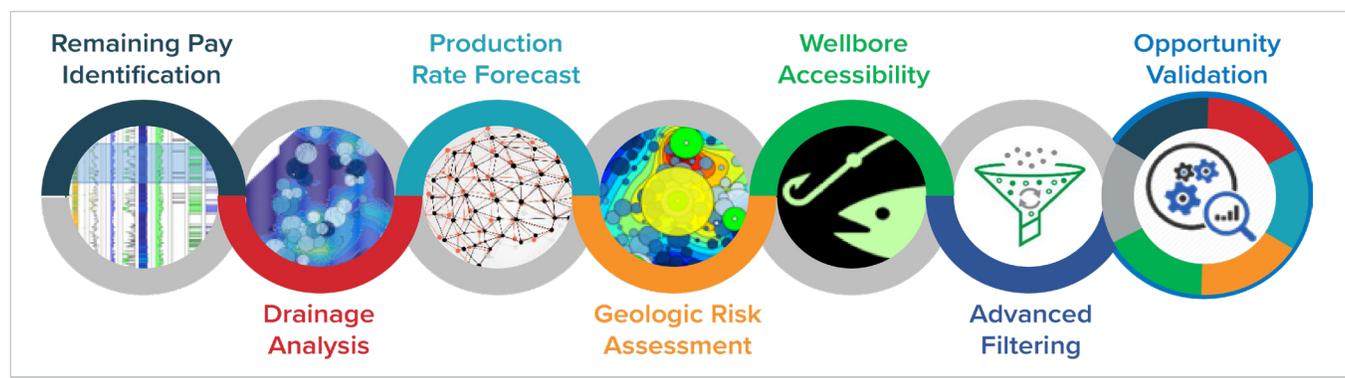

▲ SRO automates several geo-engineering workflows that perform inter-disciplinary analysis.

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- Interference Analysis: Optimization algorithm designed to select the best subset of non-interfering candidates using multi-objective functions.

- Uncertainty Quantification: Assess structural/stratigraphic/mapping risks.

For each of these modules, the user has access to several parameters that can be used to customize the inner mechanics of various algorithms, which helps adapt the workflow to unique field-specific complexities.
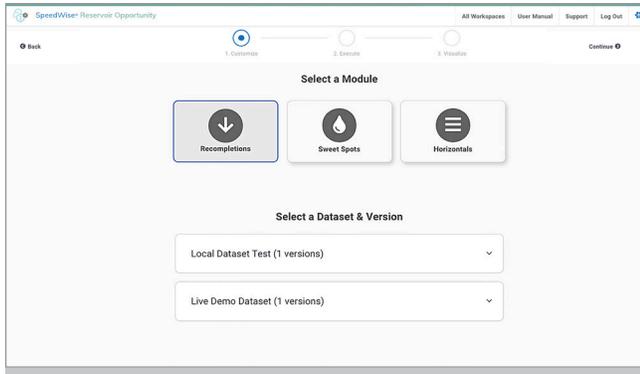
▲ SRO has an automated framework that employs and simplifies workflows specific to opportunity type

▲ Settings are flexible and can be adjusted to customize the inner mechanics of numerous algorithms, enabling workflows to adapt to field-specific complexities.
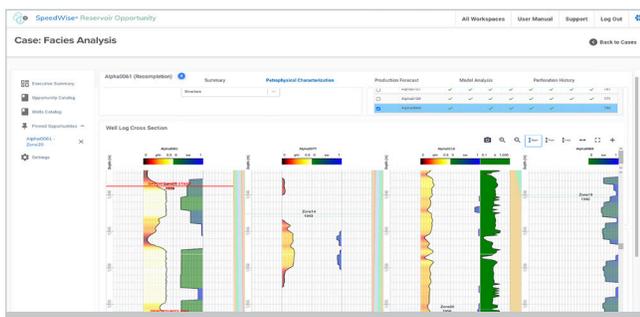
▲ SRO is a scalable SaaS platform with powerful cloud computational capabilities. Results are executed as fully interactive visualizations.

SpeedWise Reservoir Opportunity Features

- Automated geo-engineering workflows for identifying and ranking recompletion, vertical sweetspots and horizontal wells.

- Centralized and collaborative dataset management: Create/update datasets, upload files, and automatically QC/validate data. Multiple users can collaborate on creating/updating a dataset. Supports Energistics RESQML for wells and reservoir models.

- Workspace/case management: Manage/access projects and define or view cases. Users can specify project collaborators.

- Versioning: Keep track of multiple versions and interpretations.

- Scalability: Take advantage of cloud computing resources to look at multiple opportunity scenarios.

- Execution workflow: Customize a case by controlling the settings and iteratively execute various steps within any selected module.

- Flexible framework for customizing settings to unique field/reservoir specificities.

- Interactively visualize the results for each case. Share results with collaborators, vet opportunities, and export results in various formats.

The Advantages of Speedwise Reservoir Opportunity

- Better risk management and shorter decision-making cycles.

- Streamlines identification of opportunities that increase production and reserves, and maximize capital efficiencies.

- Cross-functional workflows break down multi-disciplinary silos to help identify opportunity criteria and empower more reliable field development planning.

- Consistent assessment and evaluation methodology with repeatable results.

System specifications

- SpeedWise SRO is a secured cloud native solution, accessed online via a subscription as SaaS (Software as a Service), and meets the requirements of the most security-sensitive organizations.