

DOT.CBM™

Development Optimization Toolkit for CBM



- Data Analysis for Reservoir Characterisation
- Property Mapping and Visualisation
- Production Forecasting
- History Matching
- Costs and Economics
- Development Planning Optimisation

A multi-disciplinary reservoir characterisation, static and dynamic modelling tool, designed to support field development planning efforts for Coalbed Methane resources

Provides a structured environment for data analysis, property modelling and forecasting of production under uncertainty

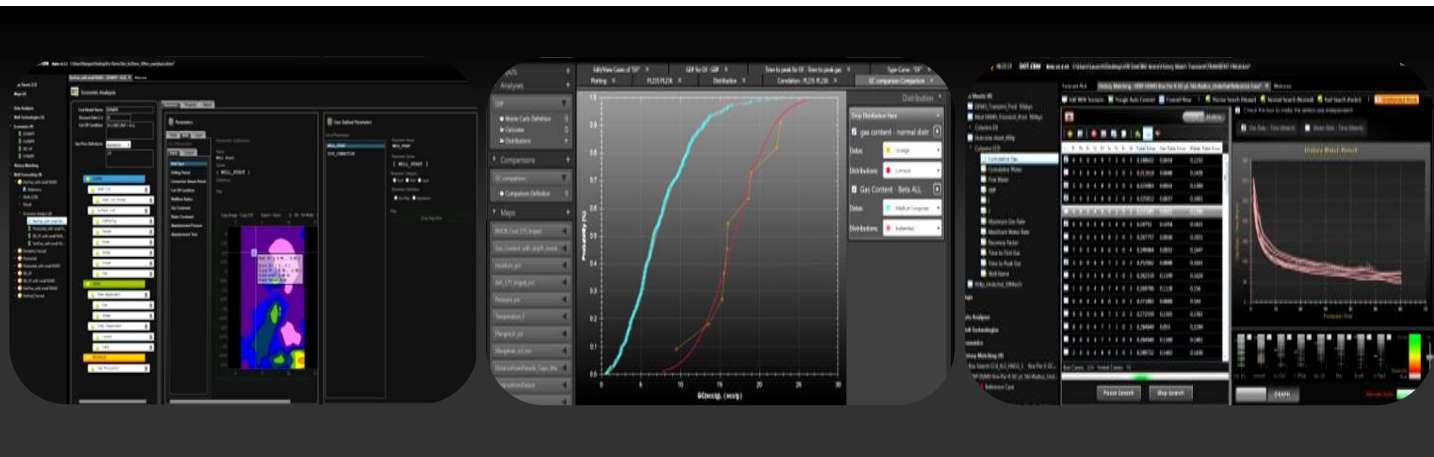
Pre-programmed and user-defined workflows allow for an auditable relationship between reservoir property ranges, spatial trends and type curve outcomes

Allows for a fast turn-around of results using published best practices in field development planning

All features are wrapped in a user-friendly interface allowing for easy navigation through all modules, easy export of outputs, integration with other applications and advanced 2D and 3D graphics

Efficient and Powerful Integration

Integrating study work and decisions within an intuitive framework



PRODUCTION FORECASTING

- Generate rapid full-field, static model based forecasts
- Advanced material balance production forecasting, multi-well and multi-layer
- Fast numerical scheme for transient production behaviour
- Perform uncertainty and variability assessments
- Forecast alternative well & completion concepts, with a comprehensive constraints handling capability

FIELD DEVELOPMENT PLANNING OPTIMISATION

- Forecast alternative drilling schedule, well technology and spacing concepts
- Automated type curve generation
- Identify optimum drilling and completion concepts
- Support decision under uncertainty

ECONOMIC EVALUATION

- Perform field and sector economic evaluation using a variety of pre-defined and user-defined indicators
- Detailed and scalable complexity of cost templates.
- Development concept ranking for Field Development Planning decisions

WELL TECHNOLOGY SELECTION

- Rapidly create well plans using an automated well trajectory building tool
- Automated Computation of well technology costs across the field

DATA ANALYSIS

- Develop property models using powerful data fitting functionalities
- Perform advanced statistical data analysis, correlations and analogue benchmarking
- Generate stochastic simulation for probabilistic volume assessment

REPORTING

- Easy export of data, text, figures, tables and maps in most recognized formats
- Drag'n'drop functionality for copying data and graphics to MS Office applications

MAPPING and VISUALISATION

- Visualise, edit and generate maps of reservoir properties
- Perform upscaling and downscaling
- Automated visualisation of reservoir simulation outcomes for high-grading analysis
- GIS functionality and map overlay capability

PRODUCTION HISTORY MATCHING

- Match pilot well production with multiple solutions
- Generate matching parameter ranges for reservoir characterisation input
- Finite-Elements numerical and Material-balance
- Multiple global search algorithm including evolutionary stochastic methods