VISUALIZATION & ANALYSIS

Through industry-leading visualization capabilities, Results™ allows engineers to enhance productivity, gain new understanding and insight into recovery processes and improve net present value (NPV).

Results, a set of post-processing applications, is designed to visualize and report CMG reservoir simulator – IMEX™, GEM™, STARS™ – input and output data into graphs, 2D aerial maps, 2D cross-sections, 3D perspectives, stereoscopic 3D formats and tabular reports.

Results is comprised of three modules:
- Results 3D: 2D and 3D views
- Results Graph: user-definable XY graphs
- Results Report: user-definable tabular reports

RESULTS 3D

Engineers use Results 3D to interpret a reservoir simulation grid in either a two-dimensional (2D) or three-dimensional (3D) view. Results 3D displays grid block properties such as pressure, oil, water, and gas saturation. The cross-section and plane number modules display in 2D or 3D and produce ‘cut-away’ views in 3D mode. To visualize the effects of a recovery process over time, engineers are able to select different simulation times output, or animate through all the times. Displayed images can be exported as bitmaps, JPEG and AVI movie files to use in presentations or project reports.

RESULTS REPORT

Reduce analysis time by creating user-defined tabular reports using a full range of simulator output variables – well, layer, group, sector or lease line values – to visually compare multiple wells in one document. Use Results Report to compare data from different simulation runs and to generate ASCII text files for input to economic analysis applications or spreadsheets.

RESULTS GRAPH

Results Graph produces fully customizable graphing features for advanced analysis of the reservoir simulation. Produce XY plots of well production and other similar quantities, and compare various simulation outputs with historical field production. Engineers can update plots automatically during the simulation process and control the number of plots per page and the number of curves per plot. Generate full field graphs easily by using the template feature to design customized graphs and automatically apply the template to all output wells. Results Graph exports well and grid data for use in MS Office† products.
RESULTS 3D

- Full 3D model manipulation including rotational and zoom control
- Synchronize views to display multiple properties or multiple models at once
- Geomechanics grid deformation display
- Colour scale cut-off to only show blocks between a specific range of values
- Ternary display with velocity and flux vectors
- Customizable colour scales
- Contour and block fill colour display
- Animate through history and forecast time periods
- Capture the time animation to AVI output for viewing without Results
- Use template files to save customized view configurations
- View isosurfaces to track fluid fronts through the reservoir
- Theatre, room or screen sized immersive 3D visualization to increase understanding
- Complete integration of production and property profile plotting

RESULTS REPORT

- Create user-defined tabular reports using full range of simulator output variables
- Output grid properties to ASCII text files in a variety of formats

WHY CMG?

Computer Modelling Group Ltd (CMG) is the leading supplier of advanced oil and gas recovery process simulation software. CMG offers products for Black Oil, Compositional and Thermal/Chemical reservoir simulation, Assisted History Matching and Optimization, and visualization software to best understand simulation results. Experienced support teams are stationed in offices around the world to provide the best software, training and client support for advanced recovery process simulation. CMG is devoted to providing the ultimate customer experience through our commitments to R&D investment, superior software technology, and unparalleled user support.

- **R&D INVESTMENT:** With more than half our employees devoted to R&D, CMG exceeds its customer needs. CMG reinvests approximately 20% of its annual revenue back into R&D which results in significant expansion of the R&D team to further innovation and drive technology forward.
- **SUPERIOR SOFTWARE TECHNOLOGY:** CMG, the leader in enhanced oil recovery, delivers software that is easier to use and provides the most accurate results for unconventional, compositional, advanced IOR/EOR and conventional processes.
- **CUSTOMER EXPERIENCE:** CMG provides experienced technical sales and support personnel, located around the world. CMG engineers deliver same-day turnaround for support calls, small industry relevant training and a personalized customer experience.