

FlowSim

— FULLY IMPLICIT BLACK OIL AND COMPOSITIONAL SIMULATOR —

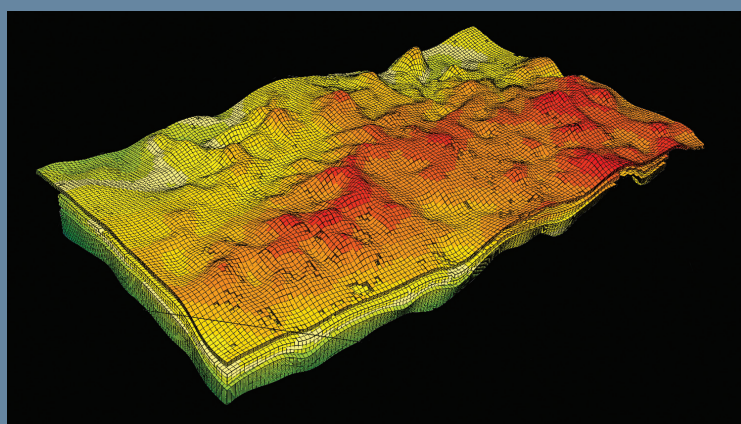
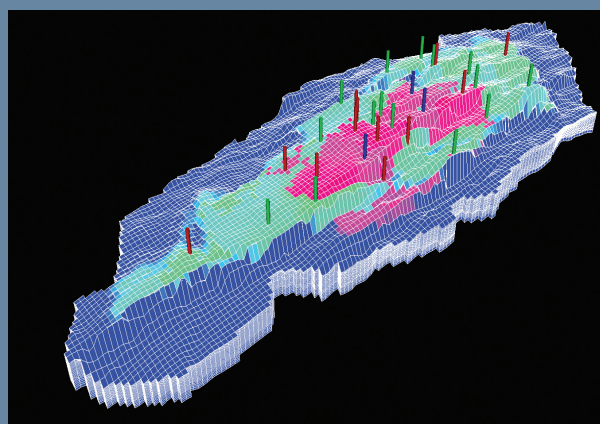


FEATURES:

- BLACK-OIL AND COMPOSITIONAL RESERVOIR SIMULATOR
- FULLY-IMPLICIT, THREE-PHASE, AND THREE-DIMENSIONAL
- RECTANGULAR GRIDS, RADIAL GRIDS, CORNER POINT GRIDS, AND AUTOMATIC GRID GENERATION
- ADVANCED RELATIVE PERMEABILITY TREATMENT
- SINGLE POROSITY, DUAL POROSITY, AND DUAL POROSITY DUAL PERMEABILITY RESERVOIR MODEL
- PARALLEL AND CLUSTERED COMPUTING

BENEFITS:

- UNIT SYSTEM FLEXIBILITY
- POSTPROCESSING CAPABILITIES
- 3D PLOT COMPARISON BETWEEN MODELS
- STATE-OF-THE-ART 3D VISUALIZATION





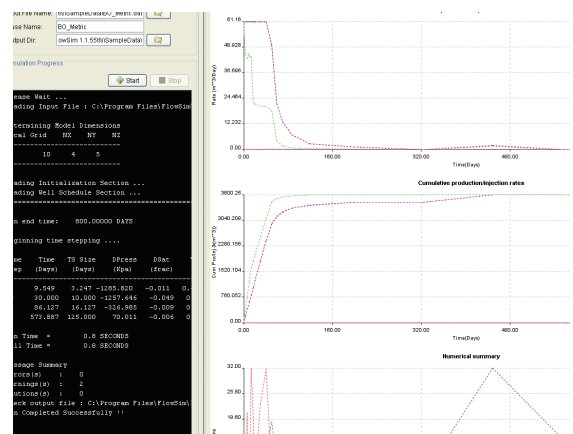
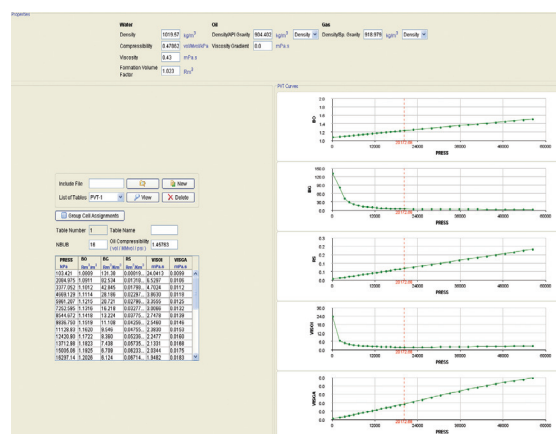
FlowSim is a fully implicit, three-phase, three-dimensional black-oil and compositional reservoir simulator. It simulates oil and gas reservoir performance by computing the gas, oil, and water phase flow within the reservoir. It can handle both single and dual porosity reservoirs. It is extremely flexible and can be used to simulate complex reservoir structures using several grid options such as rectangular grids, radial grids, corner point geometry, and automatic grid generation. FlowSim is built on the latest multicore technology and can run in parallel/cluster mode for even faster results. Local grid refinement and curvilinear grids can be used to model regions of high pressure drop, such as those near wells. Surface gas network operations modeling and partial field model linking are also available. Other important features include aquifer influx, pattern simulations, faults and polygons, miscible flooding, discretized well bore options, as well as plotting and 3D visualization of simulation results.

Well Data and Simulation Controls

- Utilize the robust and intuitive preprocessor for input file creation.
- Monitor the dynamic performance during a simulation.
- Enable large data set support with the use of “include” files.
- Visualize input grid without running the simulation to ensure accuracy.

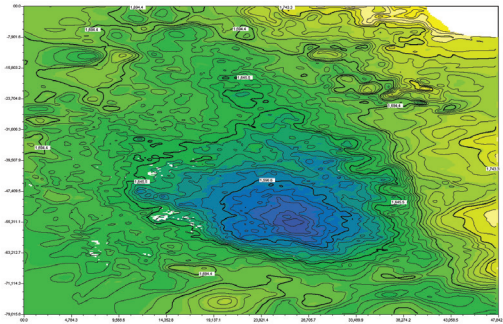
Real-Time Monitoring

- Monitor simulation results in real-time.
- Display rates, cumulatives, and numerical results.
- Select and deselect individual plot curves.
- Innovative “tabs” allow for multiple simulations to be monitored at once.
- Online real time monitoring of simulated reservoir performance and numerical solution progress (such as timesteps).



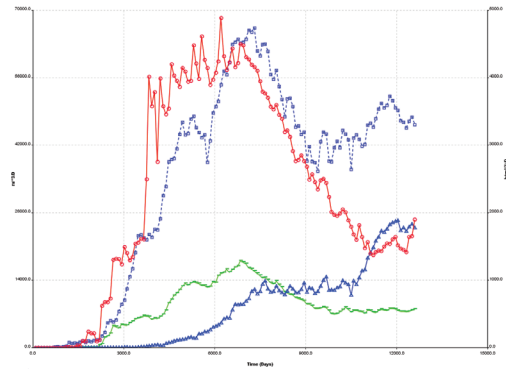
2D Mapping

- View 2D cross-sections and individual layers for detailed analysis.
- Create contour maps to highlight areas of interest.
- Print high resolution images.



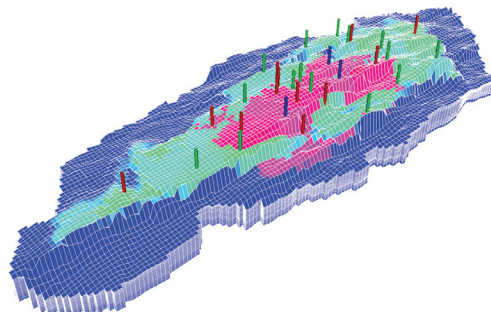
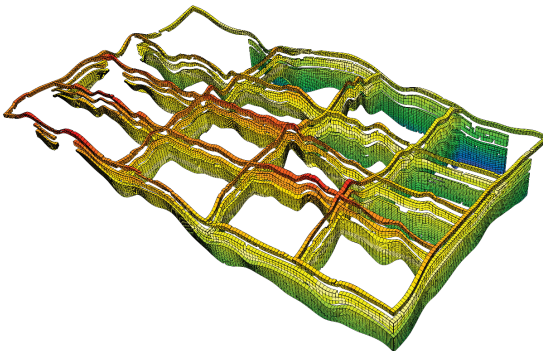
2D Plotting

- Plot graphs on a linear and logarithmic scale.
- Display properties of plots can be manipulated (colors, domain, axis, title, scale, etc.)
- Plot specific well curves as well as the results from an entire field.
- Create well group plots to analyze results for a group of wells in the reservoir.



3-D Visualization

- Rotate the simulation grid 360 degrees in every direction.
- Filter simulation grid by property values, wells, and polygons.
- Visualize well injection and depletion in a time-matching animation.
- Create polygons for in-depth study of specific reservoir sections.
- Extract subgrids based on polygons or specific coordinate values.
- View histograms, create crossplots, and perform statistical analysis.





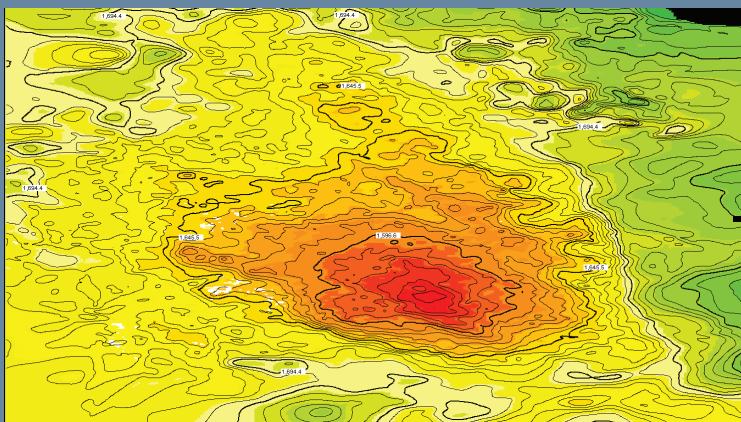
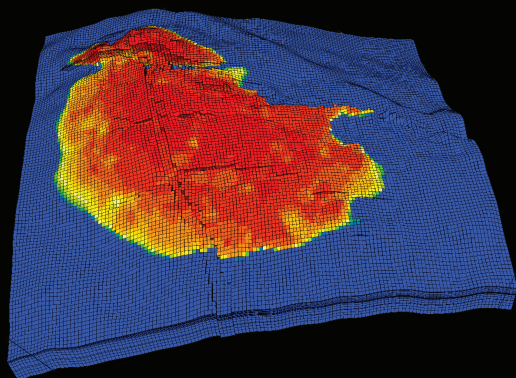
ABOUT PLANO RESEARCH:

- Plano Research Corporation provides a wide array of sophisticated products for the oil and gas sector. Our proprietary technology has been designed to simplify and speed up the analysis of routine and complex problems faced by development and exploration geoscientists and reservoir engineers during all phases of the oil and gas exploration and development. Currently, we offer the following products:

FlowSim (a black oil and compositional reservoir simulator),
CAESAR (a well and reservoir management application),
Transients (a pressure transient analysis package),
WatOpt (a waterflood optimization tool),
GasOpt (a gas field optimization application),
PetroPhase (a phase behavior software package),
PVT (a fluid property data application),
ResBal (a material balance tool),
PetroTrak (an online well and field management application),
CoreLog (a petrophysical interpretation tool),
Galaxy (a reservoir characterization software),
Sigma (a seismic interpretation package), and
Oil3D (a gas, oil, and water simulation tool).

CONTACT:

- PLANO RESEARCH CORPORATION
5240 TENNYSON PARKWAY, SUITE 201
PLANO, TEXAS 75024
[P] 972.473.4675
CONTACT@PLANORESEARCH.COM
WWW.PLANORESEARCH.COM



Plano Research Corporation