Changes – StimPlan/E-StimPlan 4.10/4.10A

January 2001

StimPlan

- **Add Graphical "Log Style" input/edit functionality for all major geomechanical (stress, modulus, fluid loss, etc.) input parameters. Input of log data from LAS files planned for next release.**
- **Combine inputs for stress/modulus/toughness with input data for fluid loss (per user requests).**
- **Increase number of allowable layers to 50.**
- Add a "Note" input dialog for jotting down short notes about the data file.
- Extensive work to improve stability for Economic Optimization (trying to eliminate cases where a single failed simulation does not destroy all the results from successful simulations).
- Allow 3-D reservoir model to be run in radial flow (with skin) mode for pre-frac production simulations and production history matching.
- Bug fixes involving using different "Units".

E-StimPlan

- **N-Frac Capability – Add capability to simulate multiple, simultaneous fractures initiating from separate perforated intervals. This includes adding a small "wellbore model" between the perforated intervals. Currently this allows simulating multiple fractures in "near vertical" wells where the fractures may "join" (in which case the simulation rigorously calculates the effects of this on width/pressure/flow/etc.) or the fractures may "interfere" (in which case the fractures do not join, and do not overlap, i.e., they simply stop height growth for each other). A future release will add cases for more deviated (or horizontal) wells where the fractures may overlap.**
- **Add "Run Time" contour plots for visualization of results while E-StimPlan (or N-Frac) simulation is running.**
- Add new "Setup Options" at run time to ease use of these options.
- Incorporate Finite Element calculations for fracture width. This allows a rigorous solution for the effects of layered modulus formations on overall and local fracture width – an industry first for a routine use fracture model.

Analysis Module (Version 4.10A only)

- Add "Zoom" symbol to all analysis plots showing that plot scales are "zoomed", and adding that a "click" on this Zoom Symbol unzooms the plot to the default scales.
- Fix bug in Analysis Plots where the plot settings would show a "line style" different from actual current "line style" being used for the plot. This often caused inadvertent (unwanted) changes to the plot line style.