

UNCOMPROMISED ACCURACY w/ UNRIVALED SPEED

Run hydraulic fracturing simulation projects **hundreds of times faster** without taking any analysis shortcuts.

StimPlan V8 completely resets the paradigm of what can be accomplished with a true 3-D Hydraulic Fracturing Simulation model.

Whether on the Cloud, or on your machine, StimPlan V8 delivers.

DON'T SACRIFICE DETAIL AND ACCURACY FOR SPEED. NOW YOU CAN HAVE IT ALL.

Run Multiple Pump Schedules				
Case	Geologic Model	Pump Schedule	Grid Design	Run Description
1	WC - Landing at 5750'	Design 1 - 62.5 Mlbs - 15'	Larger Grid	
2	WC - Landing at 5750'	Design 2 - 62.5 Mlbs - 20'	Larger Grid	
3	WC - Landing at 5750'	Design 3 - 62.5 Mlbs - 25'	Larger Grid	
4	WC - Landing at 5750'	Design 4 - 62.5 Mlbs - 30'	Larger Grid	
5	WC - Landing at 5750'	Design 5 - 93.75 Mlbs - 1'	Larger Grid	
6	WC - Landing at 5750'	Design 6 - 93.75 Mlbs - 2'	Larger Grid	
7	WC - Landing at 5750'	Design 7 - 93.75 Mlbs - 2'	Larger Grid	
8	WC - Landing at 5750'	Design 8 - 93.75 Mlbs - 3'	Larger Grid	
9	WC - Landing at 5750'	Design 9 - 125 Mlbs - 15'	Larger Grid	
10	WC - Landing at 5750'	Design 10 - 125 Mlbs - 20'	Larger Grid	
11	WC - Landing at 5750'	Design 11 - 125 Mlbs - 20'	Larger Grid	
12	WC - Landing at 5750'	Design 12 - 125 Mlbs - 30'	Larger Grid	

- Perform multivariate analyses quickly and efficiently
- Compare dozens of designs in a fraction of the time it previously took to perform a single simulation
- Optimize the design of an upcoming completion or history match past treatments using parallel simulations for faster results
- Fast enough to perform true 3-D optimizations on location using near real time data

Version 8 Advances & Additions

Speed and Interface

- Revolutionary speed increases; both local and in the cloud
- Multi-cluster simulation and visualization
- Interface Update - based on user feedback, improvements includes dynamic dialogs for more intuitive workflow

Sensitivity, Geology, Analysis

- Sensitivity Studies - expanded batch capabilities for improved multivariate sensitivity studies and history matching
- Shift Geological Layering - New input for geologic layering shifts allows for the creation of a new geologic model for each stage
- Analyses - Spherical flow and improved type-curve analyses added to After Closure Analysis feature

Reservoir, 3D, Shale

- Reservoir Simulation Compatibility - direct output of gridded fracture simulation results into reservoir simulators
- **StimPlan 3D Simulations** - expanded finite element techniques for improved accuracy
- **StimPlan Shale** - Discrete Fracture Network Reservoir Simulations create an improved simulation of the naturally fractured reservoir while Stage-to-Stage Interference inputs allow for stage-to-stage interference simulation

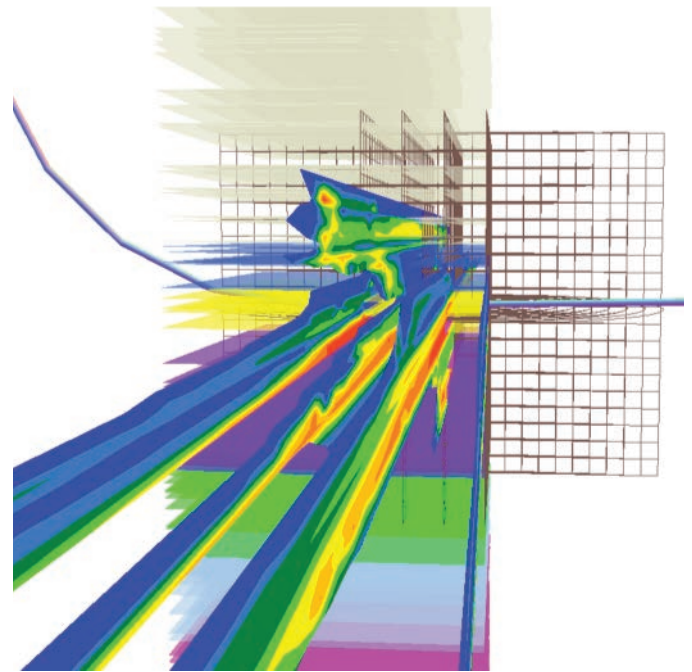
Expanded Help, Database, Mobile

- Expanded Help Function - in software engineering help added
- Improved Search Function and Auto-save
- Database Overhaul - **StimPlan V8** incorporates comprehensive, searchable databases for fluid, proppant, friction, and rock type data to enhance engineering workflow
- **StimPlan Mobile** - enter, review and analyze data from your mobile device

You no longer have to sacrifice analytical rigor for speed.

True 3-D modeling of complex stratigraphic sequences that are present in almost every unconventional reservoir. **StimPlan V8**'s flexible, automated grid generation capability provides a more accurate and efficient representation of complex geology than other fixed-grid models. The many advances made to **StimPlan V8**'s processing engine, **HIGHLY LAYERED AND SMALL GRID** simulations will be completed many times faster than previous versions—putting **StimPlan V8** in a class of its own.

True 3-D modeling of multi-cluster completions. Why rely on adjustment factors to guess what is happening with multi-cluster stages when you can now do a true 3-D multi-cluster simulation with **StimPlan V8** in a fraction of the time? The adjustment “knobs” and other shortcuts, like oversized fixed grids, used in other models are not true to physics. Such shortcuts are only used because these other models do not have the ability to perform, fast and true 3-D simulations that is uniquely available with **StimPlan V8**.



The more complex the simulations, the greater the time savings with new StimPlan™ V8 Cloud!

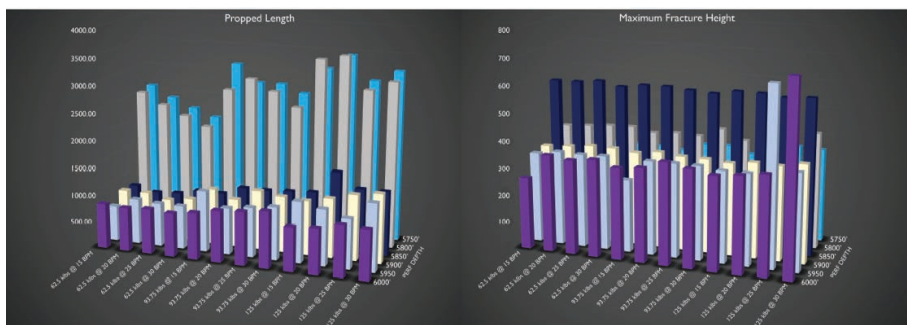
StimPlan V8 Cloud realizes the potential and competitive advantage of the cloud-based computing environment with several advances made to the core software, enabling **HIGHLY LAYERED AND SMALL GRID** simulations to be completed many times faster than previous versions.

	Layers	Vertical Grid Size (ft)	Number of Vertical Grids	Lateral Grid Size (ft)	Number of Horizontal Grids	Pump Time (min)	StimPlanV7 Run Time (hours)	StimPlanV8 Run Time (hours)
Canada Case Study	37	864	57	2297	46	134	0.70	0.12
Midland Case Study	44	2500	118	4000	320	95.4	2.97	0.43
East Texas Case Study	84	1033	147	4000	160	147	63.0	8.40

Landing Depth (ft)	Pump Rate per Cluster (bpm)	Sand Volume per Cluster (kbs)
5750	15	62.5
5800	20	93.75
5850	25	125
5900	30	
5950		
6000		

- ✓ 6 landing depths
- ✓ 12 treatment designs
- ✓ 72 simulations
- ✓ **Less than 1 hour to complete all 72 simulations!**

With **StimPlan V8 Cloud**, you get both simulation speed improvement, and the ability to run dozens of simulations simultaneously to radically reduce your total project time.



StimPlan V8 Cloud Tiered Pricing

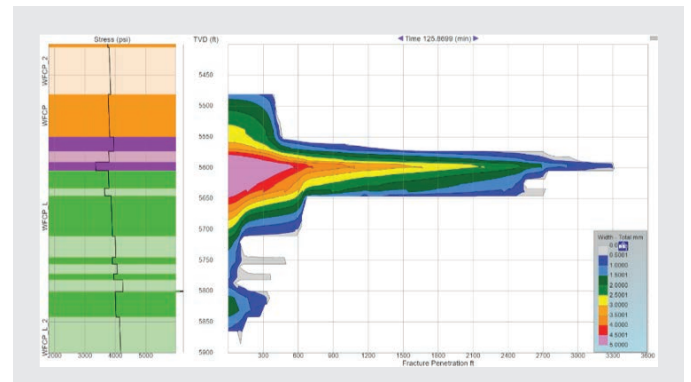
User Levels and Lease Pricing Tiers

Max Simultaneous Simulations Per User

Monthly Lease Cost

Cloud Usage Fee

	Entry	Standard	Power	Enterprise
Max Simultaneous Simulations Per User	12	24	36	On Request
Monthly Lease Cost	Low	Medium	Higher	TBD
Cloud Usage Fee	Higher	Medium	Low	TBD



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