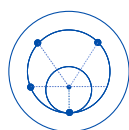


Uniform placement of fluid and proppant is critical for maximizing efficiency, ROI, and recovery factor.

Downhole imaging of perforation erosion routinely reveals evidence of toe or heel bias in proppant placement. These biases occur because of inertial and density effects as proppant travels out of the well and down the well, along with stress shadowing and localized screenout. Drawing on rich literature on this topic, ResFrac's Chief Scientist Egor Dontsov developed a universal correlation to predict these effects under a wide range of conditions. Our StageOpt tool makes it easy for you to access the results from his correlations, predict proppant placement, account for uncertainty, and optimize perforation strategy.

Key features



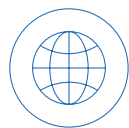
Realistic physics

Account for perforation phasing, cluster spacing, cluster location, proppant type, fluid type, wellbore geometry, injection rate, perforation erosion, stress shadowing between fractures and the previous stage, near-wellbore tortuosity, and heterogeneity.



Analysis tools

Optimize perforation phasing strategy to maximize uniformity index. Perform Monte Carlo uncertainty quantification to quantify the effect of variability in perforation phasing and diameter.



Web-based user-interface

Built-in help content and straightforward user-interface allows you to set up an analysis in minutes. Web-based, so you can avoid asking IT to do a local installation. Analyses can be saved, imported, and exported.



Export to the ResFrac simulator

With a button, export your perforation and stage design to the ResFrac simulator, where it can be used in a full-fledged fracturing and reservoir simulation analysis.