

Off-Road and Sub-Surface ... Similarities in Virtual Space

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Abstract

This presentation will highlight similarities between off-road equipment production and oil and gas production from a perspective in “virtual” space. Among the similarities are spatial extent; complicated, constrained systems requiring optimization; fluid dynamics relationships; and decisions involving multiple disciplines with collaborators distributed globally. The processes used in producing off-road equipment are in transition. They are moving away from reliance on physical prototypes and toward predictive, virtual models. Factors contributing to this transition will be presented, as will highlights of an industrial research program fostering it. The basic message of this presentation is: advanced visualization tools and immersive projection technology used in designing, analyzing, and evaluating product models and production processes in the off-road equipment industry have similar value in making business decisions about sub-surface oil and gas reservoirs.