Making Technical Problems Intuitive with Visualizations and TERR

Presented by Manny Rosales

June 7, 2016
Necessary Data During the Well Life Cycle

• Knowledge of the Reservoir/Target
• Land/Permit information (mostly PDF based, not structured)
• Well design and safety (structured)
• Historical and near real time production (structured)
• Reservoir surveillance and development planning (semi-structured)
• Offset operator analysis
  • Public or 3rd party data aggregators: Production results, frac designs, production methods, drill well spacing (structured)
  • Subsurface/Geologic data: Reservoir structure, properties, and measured rock properties (well logs)

None of these are easy to join or relate by “simple” methods
Sound Familiar?

- So much information, where do we begin?
- None of this information links easily
- Job functions don’t want to share “special” data
- I have to open 5 software suites to gather data
- None of my software links to each other
- Answers are too hard to explain, they need to be seen!
Building the Puzzle one Piece at a Time...

**Development Planning**
Determine best mechanism to leverage hydrocarbons available.

**Geologic Prospect**
Review subsurface information to understand the quality and extent of the Reservoir.

**Offset Analysis**
Rate v time and performance evaluated by cumulative volumes.

**Drill Well Design**
Design most economical method to reach hydrocarbon targets.

**Fracture Design**
Develop best method to stimulate and produce hydrocarbons from the Reservoir to surface.
Solution

Deploy Modular Solutions
Sometimes your solution grows into a 25 tab all-in-one monster! Take a step back and see if there are similar deliverables that can be achieved in smaller self contained workflows. Perhaps 2 smaller workflows that produce results are easier to consume than 1 larger solution.

Make Small Achievements Big Wins
Concentrate on small deliverables that will add up to larger gains. If you take an incremental approach achieving a solution might not occur in an ideal way but can subsequently be regenerated after key learnings are achieved.

Let TERR do the Heavy Lifting
Have data in different tables, or need to generate something that takes more than custom expressions or calculated columns? Leveraging TERR allows Spotfire to generate very powerful results.
Acknowledgements

• Blaine Brewer (Lead Developer)
• XTO’s Spotfire Support Team
• Ruths.ai
• Kim Hightower
• TIBCO’s Solutions Consultants