

Missing Middle @ TACC

- TACC is focusing on the “missing middle” in the energy industry
 - Over 3000 small- to mid-sized independent oil & gas companies in Texas!
- Large energy companies are heavy users of HPC
 - Using their own systems, or doing research at TACC
- What could these smaller companies do if they had more HPC experience, knowledge, support?
 - More accuracy in drilling; get more from each well

Possible Research Projects

- **Hydraulic fracturing, or ‘fracing’:** improved modeling & simulation of different types of proppants; determining impact of proppants on the area around the drill site.
 - Groundwater infiltration; earthquakes in AL, WV
- **Accuracy of software simulations:** Compare current drilling/3D reservoir models to real-world results.
- **Testing ISV software on larger systems**
 - Software licensing issues

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- Future: Offer a web portal (a la EWI) for ‘fracing’ simulations and reservoir modeling
 - Need expertise of modelers and geologists to create portal
 - Modeled on existing software; easy to use
- Challenge: *Reservoir data is proprietary and very valuable!*