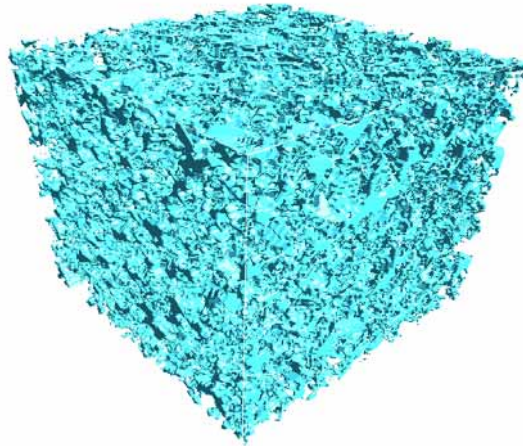


**Society of Petroleum Engineers Annual Technical Conference and Exhibition
San Antonio, September 2006**



NumericalRocks numerical core analysis¹

At the very well attended heavy oil session we wondered if we had come to the right show. Talk of ‘hydrogen deficiency’ and ‘reforming’ made us wonder if this wasn’t a chemical engineers’ convention. But no, this is indeed where petroleum engineering is going. To avoid having to move vast quantities of low grade oil sands around, and to correct their intrinsic hydrogen deficiency, the refinery is co-locating with the production facility. Here, the ‘digital’ oilfield of the future will be a refinery too!

The digital conventional oilfield is as much concerned about enabling hardware, like recording instrumentation and control systems, as it is with computer modeling. Exxon reported on its 28 year experience of permanent downhole gauges and Kinder Morgan on smart well control of a CO₂ flood in the Sacroc field. In the same vein there were announcements from Roxar on high end metering solutions and WellDynamics-Landmark on real time control of ‘smart wells’ using neural nets. David Deaton (Halliburton) reported on the Real Time Optimization technical interest group’s automation benchmark study. V 1.0 of ProdML, POSC’s new production data standard, was rolled-out on schedule. ProdML pilots from BP, Shell and Chevron showing how the XML wrapping of legacy software can build significant composite applications. Most vendors are too busy to be producing much in the way of new tools. But we spotted a newcomer of note in NumericalRocks, a Norwegian startup that performs nanometer-scale modeling of cores for digital special core analysis. Another Norwegian organization, EPSIS, has been working on a data drill down and visualization to monitor work on Chevron’s San Ardo ‘i-field.’

The SPE is to address the manpower problem with a ‘Young Professionals’ mentoring program. A new website www.lookupstream.com allows for simultaneous search of AAPG, SEG and SPE publications. And the SPE is putting distinguished lecturers presentations online, thereby significantly reducing its carbon footprint! And finally, the SPE has announced, with considerable fanfare, an IT Technical Section – which is to develop education programs and best practices for the digital oilfield.

Highlights

[Heavy Oil Session](#)

[Cazalot](#)

[IT Technical Section launch](#)

[EPSIS data drill down for San Ardo i-Field](#)

[Metering the Independence Hub](#)

[ProdML V1.0](#)

[NumericalRocks’ e-Core](#)

[Tecplot RS 2007](#)

[Exxon’s PDHG strategy](#)

[Benchmarking Automation](#)

¹ Image courtesy [NumericalRocks](#).

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