

## **New Technology on Reservoir Modeling: the Future Stands on PCs**

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Until the arrival of 3D earth modeling in the 1990s, reservoir modeling was restricted to the 2D world and mainly ran on UNIX machines. Nevertheless, early products for 3D modeling still requested heavy processing and thus high-end workstations with very good graphic performance. The accelerated development of the game industry and the oil industry demand on finding appropriate ways to optimize the hydrocarbon exploitation combined to convince software providers to develop PC-based solutions for reservoir modeling, among other tools. Those products shyly arrived in the market in the late 1990s, but are now conquering the users. Today many of the major oil companies are retiring the UNIX workstations and taking advantage of the competitive prices and high performance of the PCs to replace them. Windows based reservoir modeling softwares present very friendly interface, allowing geoscientists to use more of their time on modeling the reservoir itself, instead of wasting days and weeks loading data and/or learning how to operate the software.

The hottest concept on reservoir modeling now consists on updateability. Drilling new wells, acquiring 3D and 4D seismics, and loading data in real time left the status of being a trouble to keep geologic models up to date. Quick updates mean inputting new data as they become available and simulating new scenarios much earlier than it was possible before. Easy updateability allows spending more time on evaluating and reducing uncertainties in the exploration and development cycle, increasing the recovery factor of the oil fields.

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