Supercomputers may help oil companies

October 10 2005

Ohio State University scientists say oil companies may soon be using supercomputers to solve problems such as how to fight oil spills.

For decades, the industry has used computers to maximize profit and minimize environmental impact, explained Tahsin Kurc, assistant professor of biomedical informatics at Ohio State University.

Typically, companies take seismic measurements of an oil reservoir and simulate drilling scenarios on a local computer. But Kurc and colleagues are developing a software system to allow supercomputers at different locations to share workload.

Kurc says the system runs simulations faster and in much greater detail, allowing analysis of very large amounts of data.

Kurc and his colleagues are enabling technologies to distribute data to supercomputers at different institutions. In a recent issue of the journal Concurrency and Computation: Practice and Experience, they described a software program they developed called DataCutter that assigns data analysis tasks among networked computer systems.

The project is part of a larger collaboration with researchers at the University of Texas at Austin, Oregon State University, University of Maryland, and Rutgers University.

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Citation: Supercomputers may help oil companies (2005, October 10) retrieved 9 May 2024 from https://phys.org/news/2005-10-supercomputers-oil-companies.html

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