Geomodeling Compute Frameworks

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The currently popular technology of distributed computing relies on the allocation of potentially complex computational routines across a number of computers connected via a network. The goal behind distributed computing is to systematically break up an algorithm into computational steps and then run these in parallel across all nodes comprising the distributed computing network. With the recent proliferation of low-cost commodity hardware and distributed computing tools, distributed computing is being leveraged within many disciplines, ranging from seismic processing to Internet search-engine technology. This paper presents a description of the development of an experimental system of distributed services targeted at geological modeling. Specifically, it explores simple 3-D property modeling and the challenges related to using common algorithms in a distributed framework.