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Competing in the New Era of Knowledge-based Petroleum Companies

by Robert P. Peebler, President and CEO, Landmark Graphics Corporation

I believe the petroleum industry is entering an era of growth in which the new core competency will be the ability to leverage knowledge assets more efficiently.

Global demand for oil and gas may increase dramatically over the next decade, but oil prices will likely remain flat. The technical challenges and costs of finding and producing energy resources grow every year, while new discovery sizes decline. To prosper, E&P organizations must learn to harness new information technologies to reduce cycle times and boost productivity. Those that embrace technology early will reap the greatest rewards. Laggards may not even survive.

Since the 1950s, key technologies have caused major productivity leaps in the industry. Widespread use of well logs and 2-D seismic greatly improved structural interpretation, but the introduction of 3-D seismic in the 1980s provided even better structural imaging. Today, integration of all geophysical, geologic, and engineering data is enabling highly detailed 3-D (and 4-D) reservoir characterization and simulation.

The next exponential leap in productivity will occur when E&P companies become both "informationalized" and integrated at the enterprise level. I call these "I^2 enterprises." Enabled by information technologies such as desktop systems, client/server computing, and distributed databases, I^2 enterprises will access information from all parts of the organization. They will integrate the knowledge and ideas of all E&P disciplines. Ultimately, they will make better business decisions in less time.

Four levels of integration are needed to achieve this level of productivity: (1) mechanical integration of technical data, (2) workflow integration within project teams and operating groups, (3) integration of processes across different operational groups, and (4) company-wide integration of all business information to allocate resources more profitably.

Biographical Sketch

Robert P. Peebler has been president and chief executive officer of Landmark Graphics Corporation since 1992. Previously, he held executive positions including chief operating officer, president of Landmark's seismic products division, and vice president of marketing. Over the past six years, Mr. Peebler has been the driving force behind Landmark's strategic acquisitions of leading geoscience and engineering software from companies such as Zycor, Advance Geophysical, Stratamodel, Munro Garrett, DRD Corporation, GeoGraphix, Western Atlas Software, and others.

He also serves on the boards of Drilex Systems, Inc. and the Houston Museum of Natural Science. Before joining Landmark in 1989, he was president of his own marketing/management consulting firm. He was also employed in the oilfield services business for 18 years.

Mr. Peebler graduated from the University of Kansas with a degree in electrical engineering. ■