Working Title	Analysis of the Petroleum Industry Supply Chain
Key Research Question / Hypothesis	Given elevated prices for petroleum products, this research will examine current logistics and supply chain practices regarding data flows along with innovative ways of improving information exchange and collaboration.
Team Profile	1 – 4 MLog students
Project Description	The petroleum supply chain is a complex web of different entities extending from the oil fields to gasoline stations. Oil well drillers, oil service providers, equipment manufacturers, refiners, pipeline operators, distributors, petroleum convenience store operators, and integrated oil companies all depend of the flow of data to make logistical and supply chain decisions. With the recent disruption caused by Hurricanes Katrina and Rita, it is now more important that ever to have the proper information infrastructure in place to share demand and other data between supply chain entities. This information structure should also be capable of supporting various logistical and supply chain modeling methods for decision-making. The MIT Data Center began research within the area of the petroleum supply chain about one year ago as oil prices began to rise. An important part of improving the efficiency of the petroleum supply chain involves building a robust information infrastructure. Current research concentrates of the application of the M Language and Dictionary to integrate data and models within the petroleum supply chain.
Data Type & Sources	Standards for data exchange and real data from companies within the petroleum supply chain.
Potential Advisor	David L. Brock and Edmund W. Schuster
Company Contact	A number of standards groups within the petroleum supply chain have expressed interest in this project, including PIDX, POSC, and PCATS, along with Cambridge Energy Research. We recently had an industrial meeting on the subject. Details, including presentations, can be found at: http://www.mitdatacenter.org/DATACENTERm-alliance9-21-05.htm
Primary Methodology	This project will include the following methodologies: • Information gathering and integration • Some field work in gathering data and interviewing members of the petroleum supply chain • Conceptualizing (designing the information system architecture to implement an operational system for improving new product forecasting in practice.
Is	• The application of information technology standards to practical problems. • Integration of details concerning the petroleum supply chain. • Some qualitative modeling, plus identification of opportunities for improvement.
Is Not	• A detailed mathematical modeling effort.