WILLIAM H. BOSLER

Mr. Bosler earned his BS and MS in Chemical Engineering and minored in Computer Science and Mathematics at Pennsylvania State University. He also studied accounting, economic analysis, econometrics and behavioral science at NY University's Graduate School of Business (essence of an MBA) and has taken many specialized short courses.

Bill has focused on petroleum refining and petrochemical industry developments with emphasis on productivity improvements by integration of the engineering, operating, maintenance, planning and economics, logistics, regulatory, and administrative activities through Configurable, Adaptable, Commercial-Off-The-Shelf Client/Server applications, COTS for large construction projects and ongoing facility operations.

Mr. Bosler participated in the development of the American Petroleum Institute's Recommended Practice, RP, 554, Process Instrumentation and Control; participated in the development of RP 557, Advanced Control Systems; and, is Vice Chairperson of the Instrument Society of America's SP 95, Enterprise/Control Data Model Standard. S95.01 defines the complete data model for bi-directional information transfer between the Control Domain and all other Business Domains. RP 554 and RP 557 provide the integration framework for S95.01 within Petroleum Refining.

ISA SP 95 is based upon the Purdue Enterprise Reference Architecture, PERA, which recognizes the differing information needs for equipment, organizations, and information systems as projects move from conception through process engineering, detailed engineering, construction and procurement, and operations. Mr. Bosler has been working with a group of senior E&C experienced personnel to put these PERA concepts to practical use for successful execution of major project worldwide.

In all activities, Mr. Bosler focuses on identifying the key client interests and minimizing the time and effort required to successfully meet or exceed those objectives.

- Developed the specification for the Customer Management System for the Caspian Pipeline (CPC). This system comprised eleven subsystems that interacted to accomplish the Crude Oil and Vessel Nominations, Scheduling, Monitoring, Loading, and Accounting for the transported crude oil.
- Negotiated agreements with Vietnam for the design, construction and operation of a refinery expansion and a grass roots refinery. These projects are predicated on a very integrated design, construction, and operations database using object-oriented principals integrated with 3-D and virtual reality tools. An indirect result of this work was Vietnam's reduction of the number of process units for their desired refinery from 15 to 3.
- Managed the design of small, skid-mounted refineries for installation in Russia's Arctic Region with monitoring in the US.

- Managed a small complex PADD V independent refinery. Under Mr. Bosler's guidance, the refinery was reorganized, and operations were safely extended to its technical limits to increase profitability — without capital expenditures.
- Developed and managed the development of many mainframe and PC based refinery and petrochemical plant planning and scheduling tools (LP, simulation and modeling of crude and product inventories and prices).
- Designed and managed the implementation of a probabilistic reliability and hazard analysis model of an offshore oil platform in the North Sea. This was a complete probabilistic data model of the facility from below the blow out preventer through the loading arm for thirty-five systems and 3,700 detectors. Multiple independent levels of operation of the individual systems were simulated to determine the overall reliability and safety.
- Participated in the implementation of refinery maintenance systems in the North Sea and Jeddah, Saudi Arabia and implemented microcomputer systems in the US.
- Developed the requirements for process data history that includes a data model for dynamically tracking stream dispositions and operator communications that integrates maintenance and the laboratory to facilitate data reconciliation. The internal business practices include process operator logs and communications to facilitate EPA and OSHA compliance while attaining higher levels of performance.
- Designed the integration of a vendor’s sophisticated Environmental Compliance Software system with a real-time data historian for compliance calculations. ProActive Equation based Environmental Monitoring is provided to avoid critical compliance violations.
- Managed the implementation of a real-time data historian, a plant wide data reconciliation system, and layered applications following the principles of API’s RP 554 utilizing MS/ Project integrated with Lotus Notes for timely project management and communication between the six geographically dispersed sites involved in the project.
- Proposed an Object-Oriented design for a new hazardous waste site that will address complete integration of a very distributed user base from the first customer call to the filing of the last regulatory report.
- Participated in the redesign of the integration of real-time process data with control, optimization, analysis, data reconciliation, and management software for a major Middle Eastern Country.
- Managed a Reformulated Fuels project for a major independent refiner. The multi company project facilitates the gasoline blending at minimum cost with minimum disruption to the refinery schedule. This project was delivered and has successfully delivered more benefits than anticipated — without an agreement between the client and the vendors as to what was to be delivered.
- Prepared a conceptual data model design for modifying daily process operating and maintenance practices to comply with OSHA Process Safety Management/API 750, EPA's proposed Risk Management Plans, EPA's Clean Air Act reporting requirements, and other regulatory requirements while following ISO 9000 Quality Standards. The goal was to develop a system that interoperates with other systems to eliminate redundancies and to provide "live documents" that are updated as the underlying databases are maintained.
- Implemented an “on-line” data reconciliation system for processing facilities that will provide the basis for all business accounting and operating and engineering

analysis for trouble shooting, improvement monitoring and process model development.

- Evaluated the strategic positioning of two refining and marketing companies and developed successful strategies for enhancing their asset value
- Designed and built a system for creating petroleum product brokerage contracts based upon broker's abstracts. The system followed the contracts through physical movements, invoicing and revenue distribution among brokers by contract.

Mr. Bosler founded Texas Consultants, Inc. in 1982 after two years with Booz, Allen and Hamilton Inc.; three years with Bonner and Moore Associates, Inc.; and ten years with Exxon Company USA. Mr. Bosler has published in the Oil & Gas Journal, Hydrocarbon Processing, Fuel Reformulation, and World Refining; presented papers at the many conferences, including the European Offshore Technology Conference and NPRA Computer Conference; and provided expert witness testimony on:

- Refinery Economics and Processing Technology selection
- Knowledge Integration for OSHA Process Safety Management
- Gasoline Blending to meet the Clean Air Act Requirements
- Effects of increased taxation on the refining and petrochemical industries in Texas
- Reliability Analysis • Hazard Analysis

Mr. Bosler, was a registered Professional Engineer in the State of Texas, was listed in Who's Who Worldwide 1990 and is a member of the American Petroleum Institute's Subcommittee on Instrumentation and Control Systems, and was an active participant in the American Institute of Chemical Engineers, Fieldbus Foundation's End User Council North America's Technical Steering Committee and through that participates in the OPC Foundation, Texas A&M's Mary Kay O'Connor Process Safety Center's Technical Steering Committee, and, ISA SP95 Committee on Control to Enterprise Integration.