



Knowledge Based Systems, Inc.

KBSI transitions innovative research and technology into cutting edge solutions and software for government and commercial clients world wide. Over the past two decades, we have applied our experience in systems analysis, design, and development and our expertise in cutting edge technologies, including discrete event simulation, process modeling and analysis, data mining, and artificial intelligence, to a host of successful government projects. Our clients include the U.S. Navy, Army, and Air Force, the Department of Defense, the National Aeronautics and Space Administration (NASA), the Defense Advanced Research Projects Agency (DARPA), and the National Institute of Standards and Technology (NIST). KBSI's commercial client list encompasses a wide range of industries and includes leading firms like General Motors, Lockheed Martin, Johnson Controls, Inc., and the Chrysler Corporation.

Company Capabilities

Providing *solutions*, however, is more than providing technologies. Our success in helping our clients realize sustained process improvement is a product of our commitment to their business. At KBSI, our customer-centered approach ensures that we not only understand the challenges faced by our clients, but that, as partners, we also work together to design and implement the right solutions for their needs and develop the capabilities for improving their enterprise in the future.

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Solutions

Services

Research





Knowledge Based Systems, Inc. (KBSI) is a dynamic engineering and system analysis, consulting, and systems/software development company specializing in business process redesign, production optimization and corporate integration of software and technical service support. We provide services for a wide range of enterprise needs including business process analysis, project and cost management, activity based costing, process and data modeling, discrete event simulation, workflow optimization, and functional analysis. Our history reflects our capability and determination to complete projects on schedule, within budget, and with high quality results.

Leadership Statement

KBSI has demonstrated capabilities in the following areas:

- 3-D Modeling and Solid Modeling
- Asset Management
- Control Systems
- Cost Modeling and Analysis
- Cyber Security and Threat Detection
- Data Mining, Knowledge Discovery, Forecasting
- Decision Support Systems/Decision Making
- Energy Management
- Health Informatics
- Information Data Modeling
- Inventory and Supply Chain Management
- Knowledge Management
- Multi-sensor Integration and Design
- Optimization
- Persistent Power
- Planning and Scheduling
- Process Analysis and Design
- Production Management
- Semantic Technologies/Ontologies
- Simulation Modeling and Analysis
- Simulation-based Training
- Systems Engineering
- Systems Integration
- Visualization and Display

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Despite the diversity of size, purpose, and needs among our clients, they all share a few common goals. Recognizing these goals is the foundation of our customer-oriented approach.

- *Workable Solutions, not Unrealizable Ideals:* Picturing the perfect information system or manufacturing process isn't difficult. In the real world, however, an enterprise must operate within resource, time, expense, technology, and personnel constraints. KBSI professionals identify and analyze individual *client* needs and design and implement solutions to meet *those* specific needs.
- *Sustained Performance Improvement:* Consulting firms typically recommend changes with immediate savings in mind, but these changes often fail to address the needs of a growing company with long term goals—the quickest route to a profitable bottom line is not necessarily the best route for your company's long term goals. We thoroughly analyze our client's enterprise processes, establishing the foundation for a client-oriented solution that will evolve to meet the changing needs of their growing and dynamic enterprise.
- *Measurable Results:* KBSI provides solutions that help our clients realize quantitative results: *revenue growth, shorter lead times, lowered cost, high-quality performance, and enhanced information management and control*, to name a few. We apply proven standard methods, techniques, and technologies; use *open architecture* implementation concepts; and assist our clients in effectively *managing change*.

Core Competencies

- *Building Client In-house Capabilities:* Introducing new technology without proper training and client buy-in could leave an enterprise dependent on consultants for continued growth and development. Understanding that our clients know their business best, *KBSI works with their clients* to build a *corporate knowledge* base. This ensures that enterprise personnel effectively adapt to the solution systems and adequately understand how those systems work.

Helping our clients meet *their* clients' needs.

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Partners

Over the past decade, KBSI has successfully performed numerous research, technology development, and consulting and training contracts with several government and commercial organizations. An abbreviated list of our clients and partners includes:

- Corpus Christi, Anniston, and Letterkenny Army Depots
- NSF, NIST, and DARPA
- The Department of Health and Human Services
- The American Red Cross
- General Motors, Chrysler Motor Corporation, and Ford Motor Company
- Faraday Technology
- Digital Equipment Corporation
- SEMATECH Consortium
- Army PEO Aviation, AMCOM, and Redstone Arsenal
- Lockheed Martin Corporation
- U.S. Army Space and Missile Defense Command
- The Boeing Company
- Defense Logistics Agency
- Texas Instruments
- Federal Aviation Administration
- Bender Shipbuilding and Repair
- Air Force Research Laboratory
- Tinker, Edwards, Hill, Warner Robins, Wright-Patterson, Eglin, and Patrick AFBs
- ONR, NSWC, NAVAIR, and NASA
- AT&T Government Solutions, SAIC, and DRC
- AMARC
- SPAWAR
- USA Medical Research and Materiel Command
- S&K Technology
- Missile Defense Agency
- Computer Sciences-Raytheon
- Office of Naval Research
- Vanderbilt University
- United Space Alliance
- Research Laboratory- Aberdeen Proving Grounds
- Brooke Army Medical Center

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Founded in 1988, Knowledge Based Systems, Inc. (KBSI) has pursued the mission of turning research and technology development results into fielded and supported commercial applications. As a result of our established reputation for excellence in cutting-edge research, KBSI has been awarded over 450 major research and development contracts.

An early success that helped develop some of the company's infrastructure methods and tools was the Information Integration for Concurrent Engineering (IICE) project, conducted for the U.S. Air Force. The IICE project developed the engineering foundations, Integration Definition (IDEF) methods and tools, and migration frameworks for next-generation manufacturing and logistics environments. The IDEF methods are a world-wide standard process, activity, information, and data modeling and analysis.

KBSI's research solutions were then systematically and aggressively transitioned to state-of-the-art software products—products that have benefited users world wide. Our flagship software product PROSIM® was the result of a Phase II NSF SBIR grant in September 1992 to develop a knowledge-based simulation model design environment. This research investigated the use of qualitative methods to support the development of simulation model specifications starting from IDEF3 process descriptions. The PROSIM® software is now one the world's leading process and simulation model design tools and our customers include a large number of U.S. government agencies and military installations.

Company Profile

Corporate Offices

KBSI's employees work in one of our five locations in the U.S. KBSI's corporate and business offices, research and development center, and marketing and sales operations are located in College Station, Texas. KBSI also maintains offices in Corpus Christi, Texas to support operations at the Corpus Christi Army Depot (CCAD); Oklahoma City, Oklahoma to support consulting, training, and software tools primarily for the Tinker Air Force Base Air Logistics Center and local manufacturing industries; at the University of New Orleans Avondale Maritime Technology Center of Excellence to provide local support to shipbuilders and related industries on the Gulf Coast; and Huntsville, Alabama to support PEO/AVN, AMCOM/AMRDEC, and MDA at Redstone Arsenal.

Over a decade of providing the right tools, methodologies, and support at each phase of our clients' projects.

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KBSI provides state-of-the art solutions and software tools to a wide range of government and commercial organizations world wide. Our creative team of researchers, analysts, and developers brings a growing wealth of experience to each of our client's unique needs and challenges.

Core Advantage

Research Initiatives

Understanding our customers' needs begins in a research environment that fosters enquiry and innovation. KBSI's dedicated team of research scientists applies expertise in areas including mechanical, industrial, electrical, and manufacturing design; systems design and analysis; computer science; management science; and technical communication in developing custom solutions for our clients. This diversity enables KBSI's research team to apply innovative thinking in continually advancing the state of the art in process analysis and improvement, cost modeling, simulation, artificial intelligence, and data mining.

Services

Central to KBSI's solution approach is our suite of software tools, which balance structured knowledge capture and analysis techniques with user friendly functionality and plug and play extensibility to a number of popular third party software including Microsoft Excel®, Access, Project, and Visio®. At the foundation of KBSI's software suite are the IDEF methodologies—the world-wide standards for process, activity, and information modeling and design.

Solutions

KBSI creatively applies cutting edge research and technology in delivering custom services and software solutions to clients world wide including the U.S. Air Force, Army, and Navy, and the maritime, manufacturing, and oil and gas industries. Our approach focuses on understanding our client's needs by forging a partnership with them: by involving our clients in each phase of the project—from capturing how they do business to analyzing how they might improve their business—we avoid generic, one-size-fits-all solutions and empower our clients in the continuing improvement of their enterprises.

A comprehensive approach to researching, developing, and implementing solutions.

Solutions

Services

Research

