Partnerships

US Army, Air Force and Navy

NASA	**DARPA**
NSF	**DHHS**
NIST	**FAA**
MDA	**DHS**

Lockheed Martin Corporation

The Boeing Company

Corpus Christi Army Depot

Oklahoma City Air Logistics Center

Booz Allen Hamilton

General Dynamics Electric Boat

Products

AIØ WIN® - Function modeling and Activity Based Costing (ABC) tool.

ProSim® - Process modeling, simulation, and process knowledge management tool.

WorkSim® - A resource scheduling tool that captures all relevant workload data then generates the optimal resource schedule for the selected workloads.

SmartER® - Information modeling and database design tool.

SmartCost® - Total cost of ownership and trade-off cost model generation tool.

RampMap® - Map-based, real-time visibility of on-site assets tool.

PDP® - Facilitates rapid deployment of decision support solutions using data mining and knowledge discovery techniques.

JackalFish® - Targeted semantic searches of disparate data sources tool.

ModelMosaic® - Automatic knowledge extraction from multi source text data to construct ontologies and process models.

Test some of these products at https://access.kbsi.com.

Be sure to take advantage of our accessible and easy-to-use GSA IT Schedule 70 contract to support your business efforts. For more information concerning our services or how we might be able to assist you, please contact our Sales Department: sales@kbsi.com.

GSA Contract Holder
Contract GS-35F-0503V

KBSI also maintains offices in:

Corpus Christi

Oklahoma City

New Orleans

www.KBSI.com

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Knowledge Based Systems, Inc.
Innovative Ideas & Technologies®

TEST & EVALUATION

TEST & EVALUATION

Knowledge Based Systems, Inc. (KBSI) is a dynamic engineering and system analysis, consulting and systems/software development firm, founded in 1988. KBSI's solutions and services provide technologies for a wide range of enterprise needs, from function and process modeling to simulation, data mining, ontology engineering, planning and scheduling, inventory and asset management, test and evaluation, and visualization.

Our professionals are industry leaders in applying advanced, scientific research to focused technologies, and have converted research into next generation products and services that meet the unique needs of our clients.

Instrumentation Hardware Abstract Language (IHAL)

IHAL consists of a language and web services-based API to describe and configure instrumentation hardware in a vendor-neutral manner. Initially developed by KBSI, IHAL is now being reviewed by the RCC Telemetry Group for inclusion in the IRIG 106 standard. KBSI is currently participating as a member of the working group set up by the group to complete this task. In addition to the language and API, KBSI is developing InstrumentMap™, a tool that can be used to configure multi-vendor instrumentation in a single user interface using IHAL.

Data Display Markup Language (DDML)

KBSI deployed an advanced component-based Data Display Translation Framework (DDTF) that uses DDML, an XML-based neutral format, as the inter-lingua between data display languages supported by different vendors. DDML is generic enough to represent various vendor-specific data display formats. In addition, DDML supports reusable concepts (such as variables and data sources), is robust and supports future objects without warranting a change of the DDML format. DDML and the software components of DDTF not only enable data display model interchange across applications and the reuse of models across DOD T&E centers, but also provide building blocks for the development of automated real-time data visualization systems. Initially developed by KBSI, DDML has now been adopted by the RCC Telemetry Group and published as part of the IRIG 106 – Chapter 9 standard.

Test & Evaluation Metadata

KBSI is working closely with the RCC Data Sciences Group (DSG) to define a T&E metadata reference model that can serve as a metadata reference across all test centers and organizations. The reference model is complimented by the development of a methodology and suite of tools that unify the storage, transfer, and retrieval of T&E metadata across multiple systems, ranges, test articles, and test missions under a net-centric approach. The comprehensive T&E Ref Mod and KBSI's related tools will result in significant reductions in the time and effort needed to comprehensively define and access both legacy and future T&E metadata.

Intelligent Support of Smart Transducers

KBSI developed an adaptive "smart transducer" component-based framework that provides intelligent support for a large-scale deployment of networks of smart transducers that support the IEEE 1451 family of standards. A smart transducer-based network supports intelligent transducer applications for aircraft T&E instrumentation system management, that is independent of the transducer vendor, the network bandwidth or instrumentation support systems (ISS). Adoption of the IEEE 1451-based smart transducer technology results in significant improvements to T&E processes in terms of reduced time and increased reliability.

Frequency Management & Scheduling

KBSI has developed a technology that will help frequency scheduling managers:

- ♦Rapidly and effectively generate viable solutions in view of competing objectives and constraints;
- ♦analyze and resolve scheduling conflicts;
- ♦quickly analyze conditions involved in real-time metric adjustment decision-making;
- ♦analyze utilization history, patterns, and trends for useful statistics;
- ♦optimize the use of limited electronic spectrum resources;
- ♦apply meaningful metrics for decision making and reporting;
- ♦ effectively communicate responsible stewardship of the electronic spectrum.

These advancements will be of particular value as the DoD pursues further improvements in spectrum management capability through the development of full duplex telemetry standards and systems, advanced modulation strategies, etc. This technology provides the pivotal spectrum allocation and scheduling optimization algorithms needed to fully realize the integrated Network Enhanced Telemetry (iNET) vision.

Visit our Remote Apps site at https://access.kbsi.com to try our products.