Planning a space mission is a complicated matrix of people, hardware, and flight objectives. Knowledge Based Systems Inc. (KBSI) of College Station, Texas, designed project management software that allows NASA project managers to script activities for the Space Shuttle. The work was funded through a Johnson Space Center Small Business Innovation Research (SBIR) contract. The Mid-Continent Regional Technology Transfer Center also helped KBSI locate federal funding to later commercialize the software, permitting it to move from demonstration level into production.

In commercializing the NASA-funded product, KBSI was then afforded the opportunity to further modify the software, making it an add-on to a popular process modeling and simulation software. The software's analytical tools give users a way to gauge the impact of scheduling, monitoring, and managing subcontractors and suppliers. Cost variances in projects can be predicted and detected. Additionally, the accuracy and consistency of cost estimates are improved.

Certainly an invaluable virtue of the KBSI software is understanding relationships between people, tasks, and costs related to a project. By capturing lessons learned, the software grows in value over time.

One early software success story involves a multibillion-dollar service provider. The company needed its new-hire process redesigned. A previous procedure took seven weeks to place a new employee on the job. That resulted in long cycle times, poor-quality products, and unhappy customers.

Using KBSI’s planning software, the key issues brought about by redesigning the company’s new-hire process could be mapped out, step by step. How best to execute the redesigned procedures and the appropriate cost models to enact those steps were established. Results were immediate. The new-hire process virtually eliminated processing errors, reducing system requirements by ninety percent. Once implemented, the company started to enjoy an entirely redesigned new-hire process—one that has a fresh employee processed and placed in just one day.

In another instance, for a consortium of major U.S. semiconductor manufacturers, the software developer provided computer tools to model, design, and optimize manufacturing processes. An advanced system to capture expert knowledge for design-to-cost analyses was also developed.

KBSI-developed software is also in use by a major American automotive company. With KBSI expert systems in place, the auto maker applied the tools to design car air conditioning and cooling systems.

Founded in 1988, KBSI’s initial mission was forward thinking: to advance the state of the art by developing creative solutions for a wide range of critical problems faced by government, academic, and industrial communities. The company has since evolved to set commercial and defense industry standards for the development and support of modeling, and analysis tools and methods.

KBSI’s software products may be used as stand-alone tools, or to automatically share information with a growing list of other software vendors. Company customers include Lucent Technologies, Comprehensive Technologies International, the Chrysler Corporation, and a slate of government agencies.

The credo for Knowledge Based Systems Inc. is direct. Take control of how you do and what you do. Prepare contingency plans for when the real world waylays your best-laid plans. Manage risk by doing business better, faster, and smarter. In the end, KBSI’s software promises its user that you can plan today for tomorrow’s success.