



## **Raytheon Internalizing SPAR™ and SPARopt™ for DD(X) Life Cycle Planning**

*Austin, TX - March 15, 2003*

Raytheon announced that they will be purchasing Clockwork's SPAR and SPARopt applications for their continuing work on the Navy's DD(X) Destroyer program. Raytheon will receive copies of SPAR and SPARopt, as well as SPAR maintenance services in support of next step modeling tasks.

In the 1990s, the United States Navy faced a major concern whose resolution was critical to the nation's defense preparedness. As the Navy's aging ship fleet was reaching the limit of its useful service life, new ships would have to be built under a constrained defense budget. At the same time, defense threats were being transformed, requiring the Navy to be equipped with highly maneuverable, reliable ships. In order to meet these goals, the Navy formed two competing teams to develop independent total ship designs for the next class of ship: the Blue Team, headed by Bath Iron Works and Lockheed Martin, and the Gold Team, headed by Ingalls Shipbuilding Inc. (now Northrop Grumman Ship Systems) and Raytheon Company.

In 1999, Clockwork Solutions was contracted within the Gold Team to analyze the Reliability, Maintainability, and Availability (RAM) attributes of the ship's design relating to several systems including the Integrated Power System (IPS), missile launch system, communication system, and the Total Ship Computing (TSC) system, as these designs evolved. The analyses were to validate that the designs were reliable, maintainable, and supportable within the manning and cost goals of the program while meeting or exceeding targeted performance. In addition, the analyses focused on finding those components where design redundancy did not increase performance, but only added to the life cycle costs.

In April 2002, the Navy awarded the development effort to the Gold Team, based on their reliable and cost-effective design that met or exceeded all ORD requirements. Clockwork Solutions continues to support the DD(x) development team by providing technology and support services as necessary.

For more information on Clockwork tools and services, contact us at 512-338-1945 or [info@clockwork-solutions.com](mailto:info@clockwork-solutions.com)

[Link to SPAR Product Announcement](#)

[Link to SPARopt Product Announcement](#)

[Link to DD\(X\) Design Analysis Case Study](#)