# TANGRAM FLEX

# **CYBER RETROFIT FOR** LEGACY SYSTEMS

## **Connecting Systems to the Future**

Increasing threat landscapes and evolving risks from software vulnerabilities drive demand for cyber retrofit of critical systems. The defense industry recognizes the need to modernize its existing systems while increasing their resiliency to cyber attacks, software errors, and systemwide failures— and we need to do it faster and more accurately than our past methods allowed.

Tangram Flex solutions are designed to enable rapid and repeatable cyber retrofit with improved security and system performance.

## **A Systematic Approach**

Cyber retrofit solutions from Tangram Flex are rooted in component-based engineering and enable high-assurance software engineering capabilities through an incremental approach.



#### System Visualization

Systems are viewed at the component-level with designs mapped directly to code so components can be updated and reused with greater ease.



#### **Code Generation**

Secure interface generation capabilities in Tangram Pro™ automatically output code to rapidly connect components together without manual coding.



#### **Integrated Assurance**

Testing and code analysis are built in to every step of cyber retrofit, with advanced tools that validate safety and correctness at the component and system-level.

# **Cyber Retrofit with Tangram Flex**

Related Initiatives

RIVETSS: Repository, Integration, and Verification Toolset for Systems of Systems (Air Force Research Laboratory): Direct component library, software integration, and assurance development for the Tangram Pro<sup>™</sup> Component Software Integration Platform.

Office of the Secretary of Defense (Subcontractor to BAE Systems): Use of Tangram Pro™ as an integrated development environment to generate secure standard-compatable software interfaces for rapid integration of new capabilities in legacy systems.







