Modernized Engineering with Tangram Pro™

When the U.S. Army purchased a Wright Model A in 1909, it was a marvel of military technology. Its flight controls were hand-operated and pilots were trained by the Wright brothers themselves. Each part of the Model A has a name and a specific function, with clear specifications on how pulling or pushing a stick changes its position.

A century later, the Model A is a relic in the same museum as aircraft that landed on the moon. Levers and knobs sit next to computers and sensors, and pilots are trained on simulation devices without ever leaving the ground.

Hardware is now powered by software in almost anything we touch, and it’s nearly impossible to keep track of every connection between them. As the pace of technology quickens around the world, keeping these software functionalities up to date is essential—especially in defense systems.

The typical time to deploy a new software functionality using hardware-centric systems engineering processes

Defense Innovation Board
May 2019

Systems Engineering Needs a Reboot

Hardware engineering processes work really well for things you can see, but introducing software to the mix changes the game. Software has brought advantages to our defense systems beyond the realm of traditional mechanics, but there’s not much visibility into how it all works.

Conventional engineering can’t handle all of the unknowns introduced with each line of code. Without the right tools, changing any element takes specialized, time-consuming work and adds a lot of risk. You need new ways to visualize and understand your mission-critical systems.

At Tangram Flex, we understand the challenges of security, safety, and speed. We pair our core product, Tangram Pro™, with engineering guidance to arm you with powerful, customized toolkits to keep pace with changes in technology.
How It Works

We understand the gap between hardware and software engineering and bridge it with Tangram Pro™.

Tangram Pro™ is the first product that solves software integration challenges using customized toolkits for your specific mission.

System Integration
Before you can improve a system, you need to understand it. Tangram Pro™ allows you to define each element of your system, specify how they communicate, and map them together for a clear picture of their impacts on one another.

Code Generation
Writing code to integrate new technologies by hand is a tedious, risky endeavor. The Tangram Pro™ workflow engine generates integration code at the click of button, cutting out time-consuming manual labor.

Integrated Assurance
Confidence is key. Tangram Pro™ has behind the scenes techniques to verify that code is correct and puts plugins into your toolbox for extra evidence that the code you generate is trustworthy.

Component Management
It's all about flexibility. Add each element of your system to Tangram Pro™ with details about how they work and share technology between engineering teams for greater reuse and collaboration.

Every system is unique, but the mission is clear: the people on the ground need dependable, adaptable equipment to get the job done. We walk with you to meet this goal.

About Tangram Flex
Tangram Flex is headquartered in Dayton, Ohio. Our staff has experience from DoD, Fortune 500 companies, and innovative software startups. We are dedicated to walking alongside our customers to keep pace with changes in technology. Learn more and request a demo at www.tangramflex.com