

Space Domain Awareness Orchestration

Riverside Research is a nonprofit organization advancing scientific research for the benefit of the U.S. government and in the public interest. Through our company's Open Innovation Concept, we invest in multi-disciplinary research and development and encourage collaboration to accelerate innovation, advance science, and deliver trusted solutions.

COLLECTION PLANNING

Riverside Research's Collection Planning Suite (CPS) is a mission-agnostic modeling and simulation environment and an automated constellation orchestration tool for space-based GEOINT and Space Domain Awareness (SDA). The CPS leverages a rapidly growing cross-domain and diverse supplier market enabling greater flexibility to analysts to solve problems in unique ways.

We developed CPS to provide collection managers the ability to manage the vast and diverse array of content providers against a consolidated deck of GEOINT and SDA collection needs with ease.

The CPS is currently operational in U.S. government enterprises today. As a license-free product for the U.S. government, the CPS is a powerful and affordable answer to your GEOINT and SDA constellation orchestration needs.

CONSTELLATION ORCHESTRATION

Our SDA planner supports collection research and analysis, feasibility studies, strategy development, and daily planning for a constellation. Using our agnostic system modeling approach, the SDA planner can easily modify and manage existing or add new content providers. The orchestration engine creates optimized collection plans, aligning content suppliers against collection needs, using parameters and constraints including priority, geometry, solar/lunar lighting, and cyclic parameters.

Our more efficient supplier allocation enables timely, quality decision-making at the tactical, operational, and strategic levels to support a broader understanding of space activities, including the intentions, capabilities, and behaviors of space objects. With effective orchestration, operators can enhance situational awareness, detect potential threats, and mitigate risks effectively.

SPACE DOMAIN AWARENESS (SDA)

Building upon our CPS technology, Riverside Research offers a containerized SDA feasibility and orchestration solution that supports the detection, tracking, characterization, and understanding of space situational awareness events, facilitates decision-making at the domain scale, and better optimizes constellation performance to improve mission throughput and overall intelligence value.

