

# General Dynamics and Defence R&D Canada Develop Mission Planning with STK Engine

## Custom Application Completed in Only 40% of Allotted Time

**COSTLY SETBACKS:** Contract delays left the project team at Defense R&D Canada (DRDC0 with only four months to develop a Mission Planning Tool (MPT) for Canadian Forces.

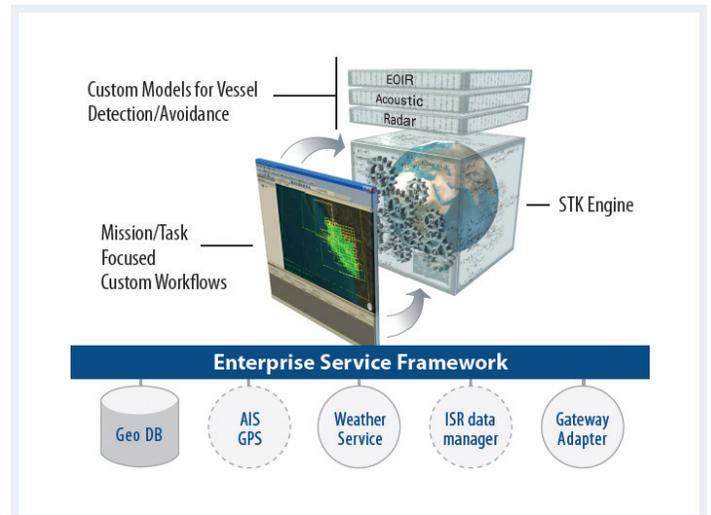
The MPT is based on a Common Operational Picture (COP) service-oriented architecture (SOA) with common data sharing for Command and Control (C2) and access to other network resources. Requirements include integration with COP tools and data—as well as the capability to execute custom models.

**TIGHT TIMELINES:** Using the STK Engine, developers from General Dynamics Canada and DRDC developed the MPT within the abbreviated time. They developed custom workflows, a task-based UI, and integration with the COP-SOA.

The solution includes a flexible workflow interface and support tools for custom modeling of vessel detection and/or avoidance. A scenario typically involves mission setup, operating area setup, route planning, and mission execution.

“Incorporating STK into the project mitigated a huge schedule risk. We achieved a very positive project outcome on time and under budget. We delivered the MPT capability on time and under budget—with far more capability than originally envisioned. DRDC was so impressed with results that the scope of MPT was expanded with additional funding. That’s exceeding expectations for this type of project.”

— DRMIKE GINGELL, PRINCIPAL ENGINEER,  
GENERAL DYNAMICS CANADA



### GENERAL DYNAMICS Mission Systems—Canada

Due to contract delays, DRDC lost six months of a ten-month schedule to develop a Mission Planning Tool for Canadian Forces. With no relief in the delivery deadline, the project team had only four months to do the job. Developers from General Dynamics Canada and DRDC used AGI’s STK Engine and technical support to develop the MPT capability within the abbreviated time. The project team delivered on time and under budget—with far more capability than originally envisioned. The success led to expanding the scope and funding a next phase of development.

**EXCEEDED EXPECTATIONS:** The project team delivered on time and under budget—with far more capability than originally envisioned. The success led to expanding the scope and funding a next phase of development. A support package that bundles training and on-site engineering led to rapid project execution. Six developers from the project team trained at AGI’s headquarters. With additional support from AGI developers on-site in Canada, the team had a working prototype in under 60 days.