G2 Ops, Inc. Gold Standard Methodology™

The G2 Ops Inc. (G2 Ops) Gold Standard Methodology™ (GSM™) offers a thorough approach to Model-Based Systems Engineering (MBSE) solutions through engineering experience, efficiency-driven innovation, quality-minded processes, and the desire to provide automated, accelerated, and advanced services for customers.

Company Facts
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Certification

Women-Owned Small Business

SBA Certified: Women's Business Enterprise (WBE)

Classification Code(s):

NAICS 541330, 541715, 541519, 541990

Facilities:

- Arlington, VA
- Virginia Beach, VA
- San Diego, CA

Inc. 5000 Fastest Growing Company

2018 - 2023

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A METHODOLOGY IN THREE ELEMENTS

GSM™ Framework	GSM™ Ecosystem	GSM™ Approach
Modeling schema offering tailored implementations	**Reports, plugins, and applications** that leverage the Framework to facilitate engineering analysis	**Meeting customer needs** through tailored capability integration and training

What is MBSE?

Model-Based Systems Engineering (MBSE) is a Systems Engineering methodology using the creation and exploitation of domain models as the primary means of information exchange between engineers, rather than document-based exchange.

The GSM™ Framework

- Contains the foundational common model schema used to guide development and facilitate clarity and consistency throughout the project
- Grants engineers multiple approaches to meeting various customer needs, challenges, expectations, and implementations

The GSM™ Ecosystem

- Comprised of ready-to-use software applications, reusable reports, plugins, and analytical tools to support engineering and cyber design, integration, compliance, and analysis efforts
- Automates MBSE model and diagram generation to reduce kickoff timelines and accelerate digital engineering goals
- Increases the level of engineering and cyber analysis capable of being performed
- Reduces engineering impact assessment and cyber authorization timelines

The GSM™ Approach

- G2 Ops' team of experienced MBSE Architects and Systems Engineers provide strategies for how to kick off and implement MBSE projects to support design and integration efforts
- Involves working with customers to customize and integrate the GSM™ Framework and Ecosystem's tools into customer processes and environments
- Offers customer-focused training to ensure long-term success of MBSE with the customer's team

The GSM™ is a three-part system developing unique solutions to our customers' complex business needs.

SBIR·STTR America's Seed Fund

IRIS

M-RAMPS

ECR/TAS

ARIE

SEADES
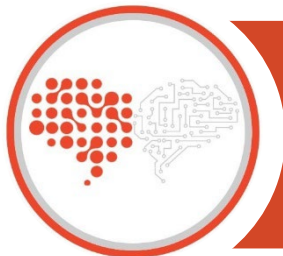
A specific application utilized within the GSM™ Ecosystem is **Monarch**, a G2 Ops-developed RMF automation tool created to support the Navy's Undersea Communications and Integration Program Office (PMW 770). Despite its origins, Monarch's capabilities as part of the GSME (e.g., model management, diagram generation, PPSM registration report creation, plugin reuse, etc.) are built into all MBSE services G2 Ops provides.

GSM™ Use Cases

Lifecycle Management of the AEGIS Combat System (ACS)

From Challenge...

Naval Sea Systems Command (NAVSEA) PEO IWS-1 acknowledged that the complexity of the ACS made assessing its cyber posture difficult.

...to Solution

G2 Ops used the GSM™ to:

- Create a digital model of the AEGIS Weapon System (AWS) and leverage it alongside GSM™-powered software tools, such as Strategic Optics for Intelligent Analytics (SOFIA) and Cyber Vulnerabilities Assessment Tool (CVAST)
- Facilitate the automation of critical artifact generation and analysis
- Enable users to assess cybersecurity threats based on platform architecture and configuration items

Risk Management Framework (RMF) Automation for Submarine Warfare Federated Tactical Systems (SWFTS)

From Challenge...

PEO Undersea Warfare Systems (UWS) required system authorization support, including developing, testing, and analyzing RMF automation tools.

...to Solution

G2 Ops used the GSM™ to:

- Automate the generation of SWFTS models, diagrams, and critical requirements documentation in support of Authorization to Operate (ATO) efforts
- Manage system authorizations and artifacts that reinforce regulatory RMF compliance
- Reduce the RMF package generation and baseline timeline by 44%

Also supported by the GSM™:

NAVSEA PEO C4I Undersea Communication Program Office (PMW 770)

NAVSEA Columbia Class Submarine Program (PMS 397)