



GENESYS™

Smarter MBSE for Tackling Real-World Problems

Learn More!



GENESYS is an integrated MBSE platform for designing and managing complex systems with precision and traceability.

Support the full system lifecycle.



Program Management



Requirements



Functional Architecture and Behavior



Structural Architecture



Verification & Validation



Specialty Engineering

STRATA

STRATA is an MBSE methodology that organizes model content into logical groups, supports layered design refinement, and ensures consistency and completeness through structured traceability for effective, context-aware engineering.

CSDL

The Comprehensive Systems Design Language (CSDL) is a next-gen modeling language based on natural language principles—its intuitive, easy to apply, and ideal for clear communication with diverse stakeholders.

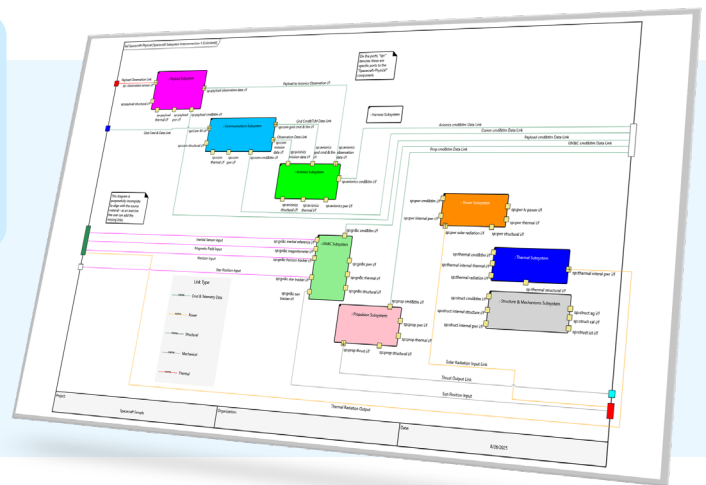


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UAF
OMG UNIFIED ARCHITECTURE FRAMEWORK®

Built on industry standards and deep domain expertise, GENESYS supports conformance with SysML, DoDAF, and the Unified Architecture Framework (UAF).



As systems grow in scale and complexity, delivering results requires tools built for the challenge.

- Collaborate in real time from a single source of truth - aligning stakeholders, accelerating design, and eliminating errors.
- Author with advanced tools that combine auto-generated diagrams and rule-based formatting to save time and cost.
- Enforce coherent, consistent and complete system designs—every time
- Apply modeling methodologies with clarity and consistency
- Enable customization and integration with an extensible schema and rich APIs
- Improve system understanding through additional capabilities and views beyond SysML

Features and Capabilities

Advanced Modeling Features

- Semantically precise SE descriptive language (CSDL)
- Guaranteed diagram-model consistency
- Multiple model organization options: class folders or containment
- Impact analysis
- Model UAF Viewpoints directly with in-tool View maps

Authoring

- Automatic diagram generation (from underlying model)
- Automatic layouts in diagrams
- Rule-based formatting

Collaboration

- Realtime updates for all collaborators
- Enterprise repository option

Analysis and Simulation

- Behavior model validation
- Timing and resource contention
- Throughput/capacity

Integrations

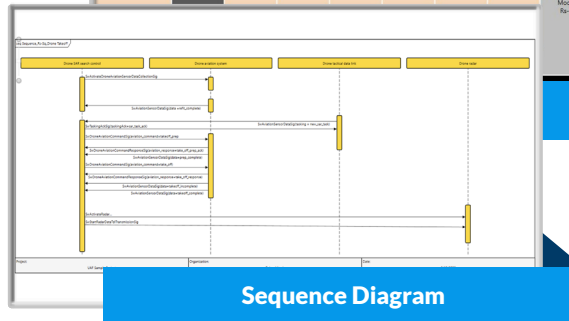
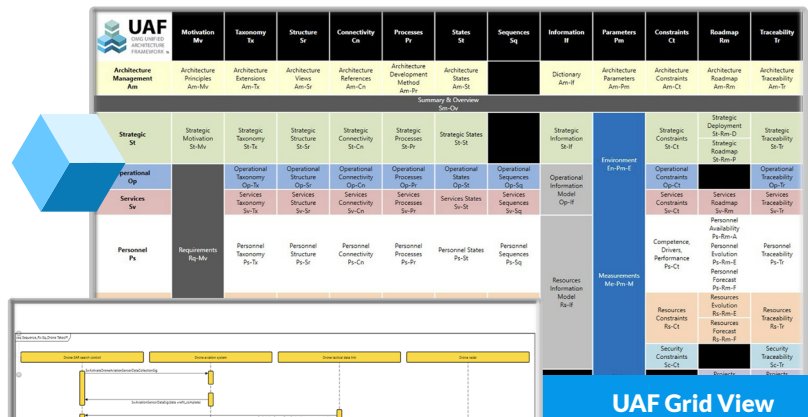
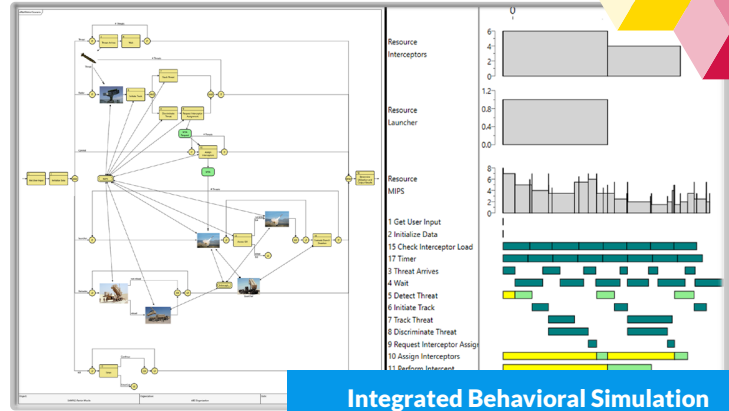
- MS Excel, PowerPoint, Project
- Matlab & Simulink
- Ansys Modelcenter
- + Many supported Digital Thread Tools

Extensions

- FMEA/FMECA
- ISO 14971 Medical Device Risk Analysis
- Extensible framework to adapt, evolve, & unlock new possibilities.

Reporting Framework & Scripting

- Predefined reports and scripts
- Open reporting engine
- .pdf/.doc/HTML output
- .NET languages support



A Product Line Built for Diverse Needs

GENESYS



Natural Language Systems Architecture with automatic diagram generation.

GENESYS Pro



Adds behavioral simulation and analytical tools.

GENESYS Server



Real-time team collaboration with a modern model repository.

GENESYS University



Designed for educational institutions teaching systems engineering.

Commercial Editions

System Requirements

Operating System

Windows 10+

Processor

2 GHz | Multi-cores/processors strongly recommended
CPU 4 core (vCPU)

Memory

Client	Server
8 GB Minimum 16+ GB Recommended	32 GB Minimum 128+ GB Recommended

Storage

200 MB GENESYS Application Files	4.5-4.8 GB .NET Framework (if not yet installed)	Additional disk space required for project databases
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