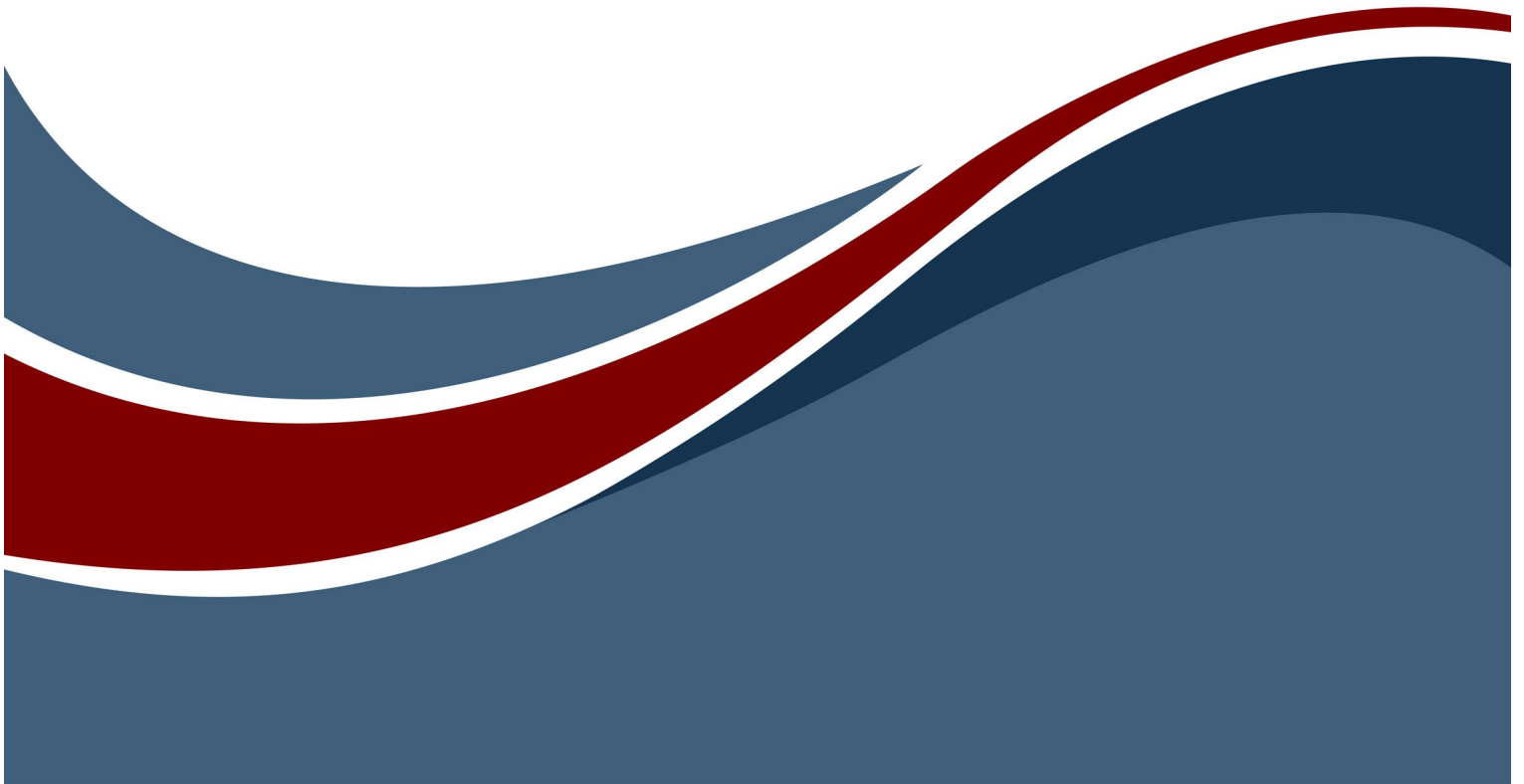




What's New in GENESYS 2025



What's New in GENESYS 2025

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Publication Date: May 2025



CUSTOMER RESOURCE OPTIONS

Supporting users throughout their entire journey of learning model-based systems engineering (MBSE) is central to Vitech's mission. For users looking for additional resources outside of this document, please refer to the links below. Alternatively, all links may be found at www.vitechcorp.com/online-resources/.



[Webinars](#)

Immense, on-demand library of webinar recordings, including systems engineering industry and tool-specific content.



[Screencasts](#)

Short videos to guide users through installation and usage of GENESYS.



[A Primer for Model-Based Systems Engineering](#)

Our free eBook and our most popular resource for new and experienced practitioners alike.



[Help Files](#)

Searchable online access to GENESYS help files.



[Technical Papers](#)

Library of technical and white papers for download, authored by Vitech systems engineers.



[Technical Support](#)

Frequently Asked Questions (FAQ), support-ticket web form, and information regarding email, phone, and chat support options.

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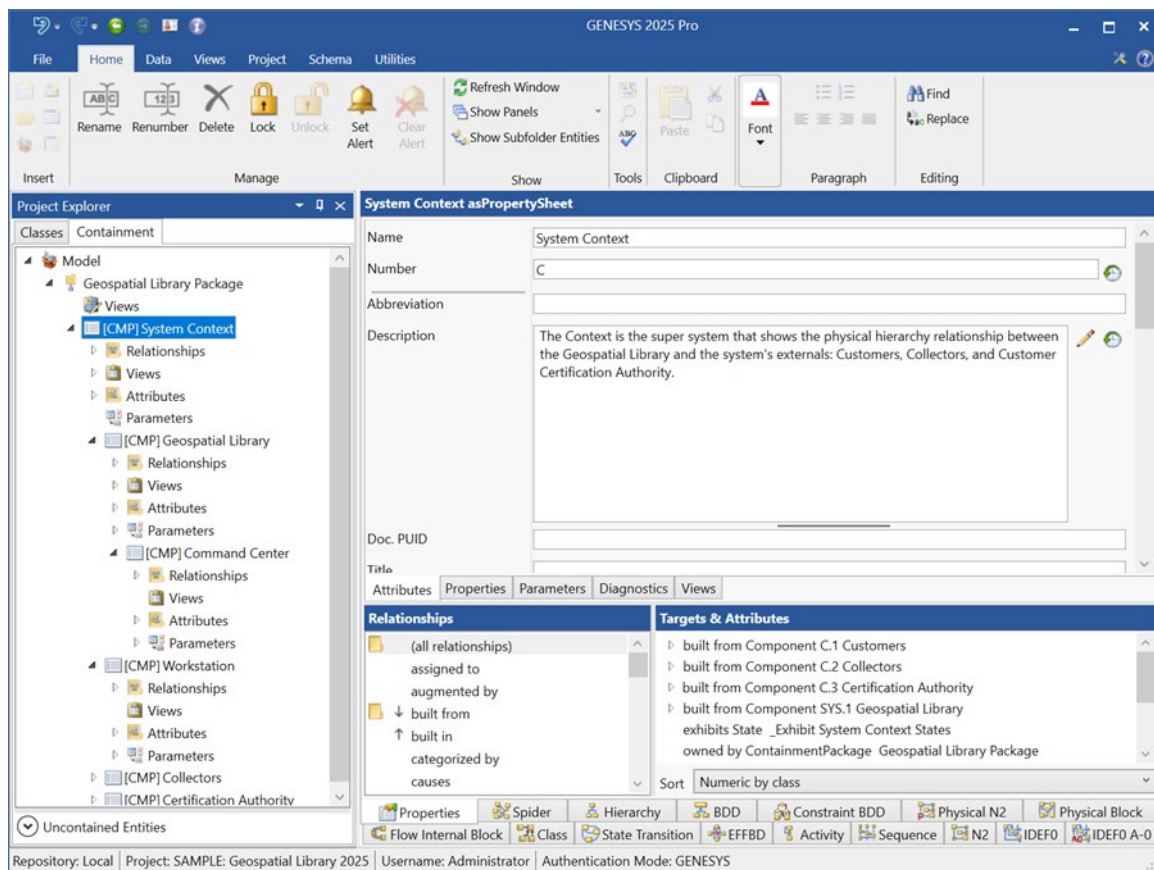
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What's New in GENESYS 2025

GENESYS 2025 delivers powerful new capabilities designed to enhance model-based systems engineering (MBSE) workflows, improve interoperability, and support industry standards. This release introduces major innovations that make system modeling more intuitive, accessible, and collaborative.

MODEL ORGANIZATION WITH CONTAINMENT FOR GREATER INTEROPERABILITY

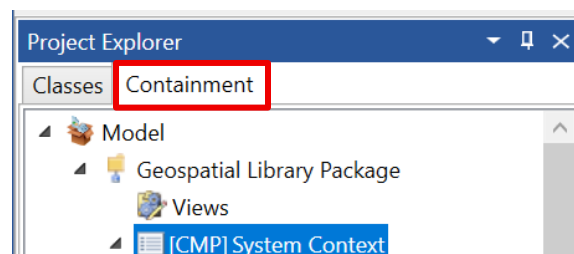
At the heart of GENESYS 2025 is the introduction of containment, a transformative approach to model organization. Containment allows users to structure engineering data in a way that aligns more naturally with user intent and industry best practices.



Key Benefits:

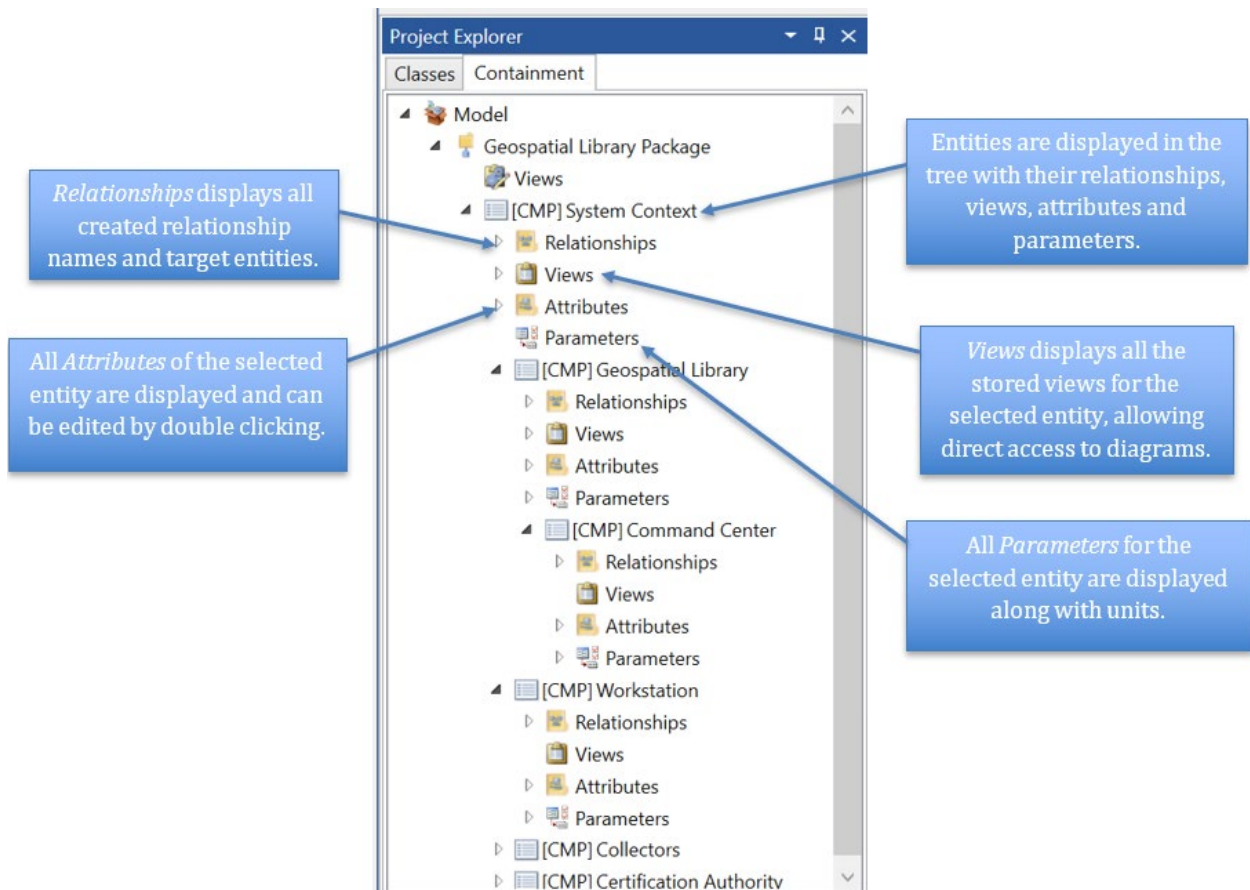
- Intuitive Navigation: Easier to explore and manage complex system models.
- Standards Alignment: Supports widely adopted data exchange standards.
- Enhanced Interoperability: Seamless collaboration across MBSE tools and teams.

To access the Containment View, click on the Containment tab at the top of Project Explorer.



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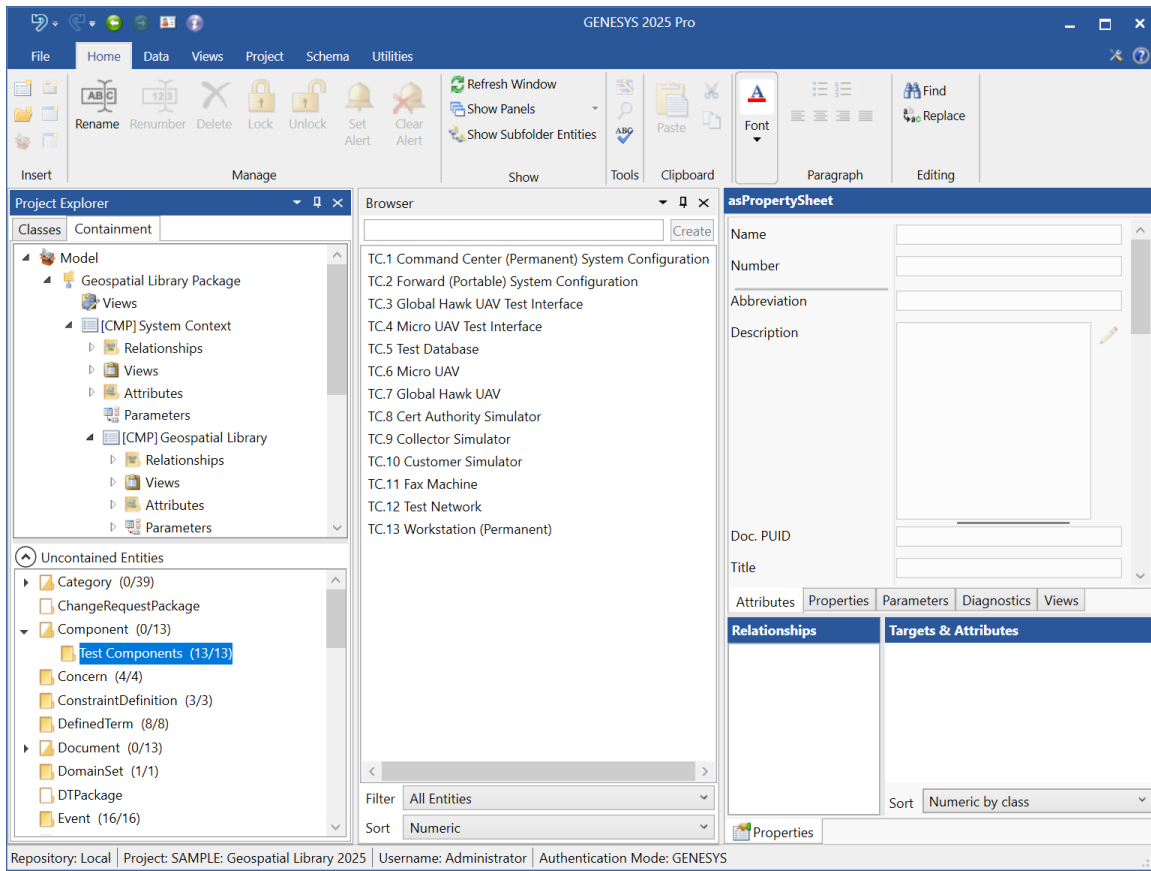
The containment view organizes models according to Relationships, Views, Attributes, and Parameters. Entities are placed in the view based on the ***Owns/Owned By*** relationships. This organization provides a more logical structure that aligns with many methodologies.



Additional capabilities supporting the Containment View include:

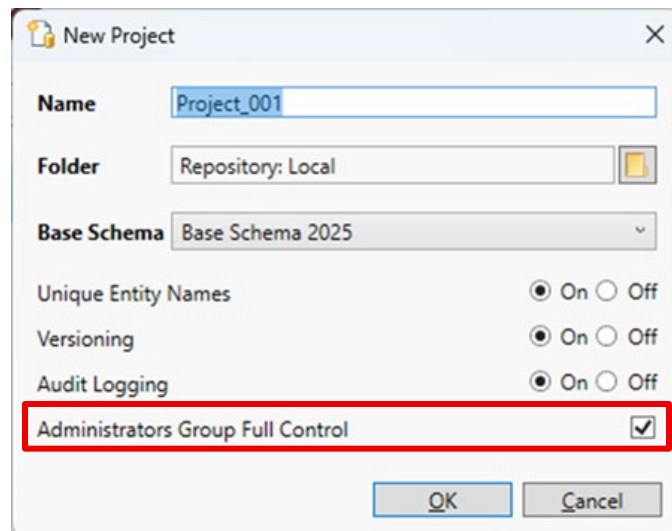
- **Jump to Entity in Containment View** – From the context menu on an entity (right-click), you can select this option and navigate directly to the selected entity in the Containment View.
- **Uncontained Entities** – Provides a list of all entities that do not currently exist in the Containment View (i.e., lack the Owns/Owned By relationship).

What's New in GENESYS 2025



FULL CONTROL PERMISSION OPTION ON NEW PROJECTS

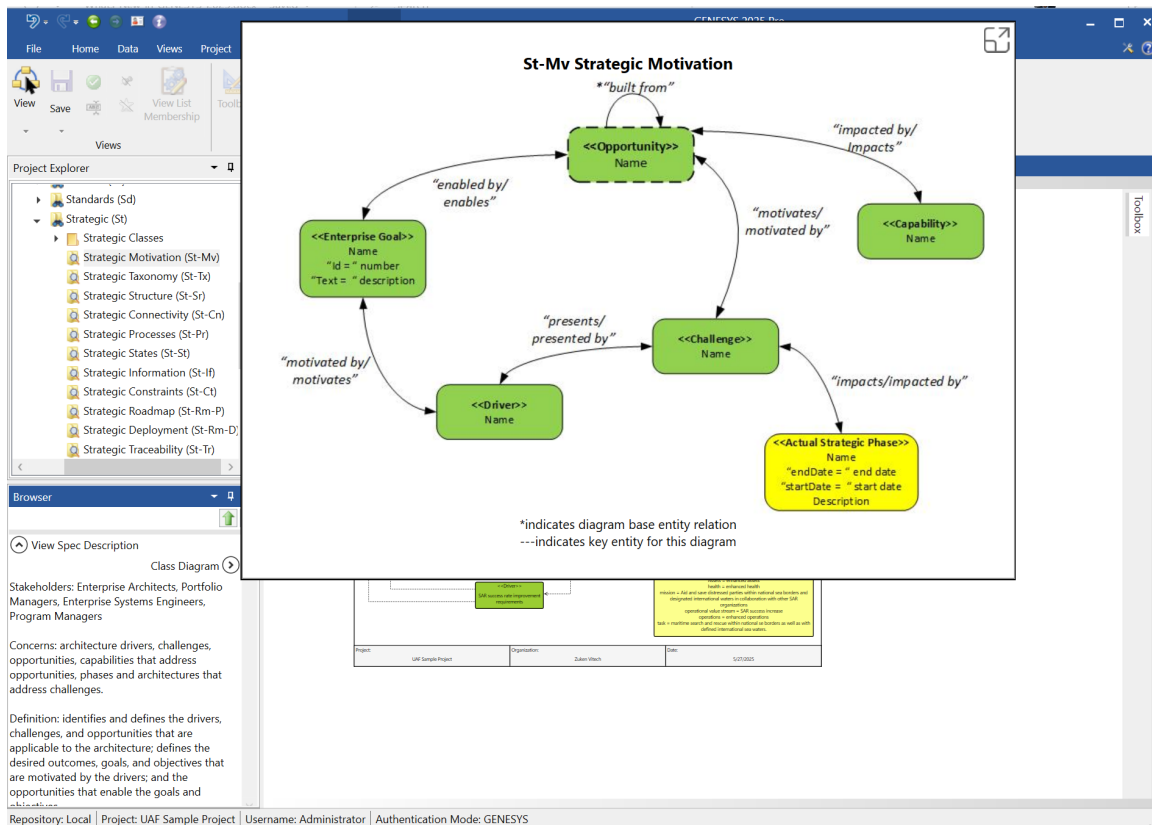
Users can now automatically give the Administrators group full control permissions on new projects at the time of creation. This option is checked by default and helps streamline administrative processes for enterprise customers.



UNIFIED ARCHITECTURE FRAMEWORK (UAF) SUPPORT WITH BUILT-IN GUIDANCE

GENESYS 2025 incorporates robust support for the Unified Architecture Framework® (UAF®), a standard developed by the Object Management Group® (OMG®) to support mission engineering and enterprise architecture.

The new UAF features include built-in modeling guidance that assists users in correctly applying the UAF methodology. Additionally, there are normative diagram samples that help accelerate learning and adoption. These new features streamline the user experience, particularly for new UAF users.



These enhancements lower the barrier to entry for organizations adopting UAF, enabling teams to build effective, standards-compliant architectures from day one.

SCHEMA CHANGES

Summary of changes to the default schemas:

- **Requirement** class: The “Composite” enumeration of the *Type* attribute in the has been removed and replaced with a separate Boolean attribute called “Is Composite?” This allows the user to declare a requirement as composite while still assigning it to a general type.
- The formerly optional “**Standards Compliance Schema**” has now been formerly incorporated into the **GENESYS 2025 Base Schema** and **Capability Schema**. This includes a new class and several new relationships that allow the user to better trace to standards if needed.
- Removal of the **Service Specification** class.
- Minor changes to the **Review** class to better support integration with Sidekick.
- General UAF relationship updates and error corrections to better align with the UAF 1.2 Specification.

The following changes were applied to the GENESYS 2025 Base Schema and Capability Schema:

1. **Requirement** class changes:
 - a. The “Composite” enumeration has been removed from the *Type* attribute.
 - b. New attribute called *Is Composite* with enumeration literals of “Nil, No, Yes” has been added.
 - i. Note: the schema migrator will set the *Is Composite* attribute to “Yes” for requirements that currently have the *Type* attribute set to “Composite” and then set the *Type* attribute to “Nil.”
2. **Service Specification** class has been removed from the **GENESYS 2025 Base Schema**.
 - a. Note: the schema migrator will transform any Service Specification entity to a **Requirement** entity with the term “[Service Specification]” appended to the name of the entity. If the Service Specification class is still desired, the user can add it back to the GENESYS 2025 schema before migrating the project.
3. **Review** class changes:
 - a. Attributes *publishedDate* and *startDate* have been removed
 - b. Attribute order changed to:
 - i. Name
 - ii. Number
 - iii. Description
 - iv. reviewID
 - v. mode
 - vi. createBy
 - vii. leadUser
 - viii. purpose
 - ix. guidance
 - x. plannedClosingDate
 - xi. actualClosingDate
 - xii. sidekickReviewLink

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4. **Standard Compliance Schema Extension** inclusion in the **GENESYS 2025 Base Schema** and **Capability Schema**. For more information, please see the “Standard Compliance Schema Extension User Guide” located in the “Extensions” folder in the install directory of GENESYS.
 - a. Added new relationship pairs:
 - i. **Compliance with / satisfied by** – Compliance with identifies the industry or process standard which the entity satisfies
 1. **Standard “satisfied by” Program Activity, Requirement, RequirementGroup**
 2. **ProgramActivity, Requirement, RequirementGroup “compliance with” Standard**
 - ii. **Clarified by / clarifies** – Clarified by designates lower-level standards for this entity.
 1. **Standard “clarified by” Standard**
 2. **Standard “clarifies” Standard**
 - b. Added new Class:
 - i. **Standard**
 1. Attributes:
 - a. *Section Number*
 - b. *Standard Applicability*
 - c. *Standard Rationale*
 2. Relationships
 - a. **Augmented by** with target class **ExternalFile, Text**
 - b. **Categorized by** with target class **Category**
 - c. **Clarified by** with target class **Standard**
 - d. **Clarifies** with target class **Standard**
 - e. **Documented by** with target class **Document**
 - f. **Packaged by** with target class **Package**
 - g. **Satisfied by** with target class **ProgramActivity, Requirement, RequirementGroup**
5. **UAF Schema** Updates:
 - a. New Relationships:
 - i. **Competence “provides competence” to Actual Organization, Actual Organization “utilizes” Competence.**
 - ii. **Capability “maps from” Operational Activity, Operational Activity “maps to” Capability.**

REST API ENHANCEMENTS

New endpoints have been added to the GENESYS 2025 REST API expanding access to GENESYS models.

Packages

Show/Hide | List Operations | Expand Operations

GET	/api/v2/projects/{projectId}/packages	Gets packages for all package types.
GET	/api/v2/projects/{projectId}/packages/{entityId}	Gets a package.
GET	/api/v2/projects/{projectId}/packages/{entityId}/entities	Gets entities packaged in a package. [Page] [Filter] [Sort Block]

The *Packages* endpoint provides a convenient mechanism for obtaining package hierarchies and packaged entities.

ProjectFolders

Show/Hide | List Operations | Expand Operations

GET	/api/v2/projectfolders	Gets all root project folders.
POST	/api/v2/projectfolders	Creates a new project folder.
DELETE	/api/v2/projectfolders/{projectFolderId}	Deletes a project folder.
GET	/api/v2/projectfolders/{projectFolderId}	Gets project folder by project folder id.
PUT	/api/v2/projectfolders/{projectFolderId}	Updates a project folder.
GET	/api/v2/projectfolders/projects	Gets all root project folder projects.
GET	/api/v2/projectfolders/{projectFolderId}/projects	Gets project folder projects by project folder id.

The *ProjectFolders* endpoint provides the ability to access and manipulate the project folder hierarchy and contained projects.

Views

Show/Hide | List Operations | Expand Operations

GET	/api/v2/projects/{projectId}/views	Queries the views in a project.
GET	/api/v2/projects/{projectId}/entities/{entityId}/views	Queries the views in a project.
GET	/api/v2/projects/{projectId}/views/{viewId}	Gets a view in a project.
GET	/api/v2/projects/{projectId}/views/{viewId}/content	Gets a view's content.
GET	/api/v2/projects/{projectId}/entities/{entityId}/defaultdiagrams/{entityDiagramType}	Gets the default diagram for an entity.

The *Views* endpoint provides access to model view data and includes the ability to generate images for all GENESYS diagram types and HTML content for Matrix and Table views.

GENESYS 2025 RESOLVED ISSUES

The table below contains a list of issues that were resolved in GENESYS 2025. They are grouped by area and provide a description of the main observed behavior or symptom resolved in this release.

Reference	Description / Resolution Notes
Diagrams	
IDEF0-A0 – Executing a logout with the diagram open in a separate window causes the application to terminate. (8596)	The diagram is now closed, and the logout completes without error.
Hierarchy/Spider – Underscore characters (“_”) in the name of a hierarchy definition will not be displayed in the Hierarchy Type ribbon menu. (8594)	The underscore characters are now displayed correctly.
Hierarchical (Spider, Hierarchy, BDD, Requirements, etc.) – Changing the levels setting loses various node settings. (7275, 7322)	When changing the levels setting multiple times, nodes that are removed and readded would lose settings such as size and being marked hidden. The settings are now retained when the levels are reduced and subsequently increased.
Sequence – Removing or deleting item produces the error “Object reference not set to an instance of object.” (3230)	Items output from and input to the same activation node would cause the error when removed or deleted. The operation now succeeds without error.
Schema	
The mouse wheel cannot be used to scroll the list of selected classes when viewing a facility. (7641)	The mouse wheel now vertically scrolls the view as expected.
UAF	
Am-Tx – The Am-Tx BDD should only allow the Architecture class. (7597)	The view was allowing the user to select OperationalAgent, Service, or ResourceArchitecture classes as the basis for the BDD. The user can now only select Architecture when creating the view.
Op-Tr – The Op-Tr BDD should have the Capability > maps from > OperationalActivity relation. (7524)	The relation has been added to the UAF 2025 baseline schema. Run the project schema migration command in existing projects to migrate to the latest schema.
Ps-Ct – The Ps-Ct BDD should have the Competence > provides competence > ActualOrganization relation. (7531)	The relation has been added to the UAF 2025 baseline schema. Run the project schema migration command in existing projects to migrate to the latest schema.
REST API	
.../projects/{id}/entities{id} endpoint fails when the result in includes a Date or DateTime parameter with a Precision value. (8205)	When a Date or DateTime parameter with a Precision value was accessed, the API would return a 500 error response. The Precision field is stored as a TimeSpan which was not being converted properly. The operation now succeeds without error and the TimeSpan object is converted successfully.



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