


# UAF 1.2


The Unified Architecture Framework (UAF) supports the capability to:

- model architectures for a broad range of complex systems, which may include hardware, software, data, personnel, and facility elements;
- model consistent architectures for system-of-systems (SoS) down to lower levels of design and implementation;
- support the analysis, specification, design, and verification of complex systems; and
- improve the ability to exchange architecture information among related tools that are SysML based and tools that are based on other standards.

According to modeling needs, there are two UAF templates for different purposes:

1. **UAF Enterprise Architecture Project** is designed for enterprise and IT architecture modeling and includes essential elements for this area: capabilities, requirements, operational behaviors, resources (hardware, software, facility), data, and personnel.
2. **UAF Project** is designed to model architectures for a broad range of complex systems. The UAF provides an applicable model security controls, threat, risk, and risk mitigation. It allows defining consistent architectures for System-of-Systems (SoS) inclusive of all creation phases from the design until implementation.

 Please make sure, that the UAF Plugin is installed.

<div>UAF</div> <div>UNIFIED ARCHITECTURE FRAMEWORK</div>	Motivation Mv	Taxonomy Tx	Structure Sr	Connectivity Cn	Processes Pr	States St	Sequences Sq	Information <sup>c</sup> If	Parameters <sup>d</sup> Pm	Constraints Ct	Roadmap Rm	Traceability Tr	
Architecture Management <sup>a</sup> Am	Architecture Principles Am-Mv	Architecture Extensions Am-Tx <sup>a</sup>	Architecture Views Am-Sr	Architecture References Am-Cn	Architecture Development Method Am-Pr	Architecture Status Am-St		Dictionary Am-If	Architecture Parameters Am-Pm	Architecture Constraints Am-Ct	Architecture Roadmap Am-Rm	Architecture Traceability Am-Tr	
Summary & Overview Sm-Ov													
Strategic St	Strategic Motivation St-Mv	Strategic Taxonomy St-Tx	Strategic Structure St-Sr	Strategic Connectivity St-Cn	Strategic Processes St-Pr	Strategic States St-St		Strategic Information St-If	Environment En-Pm and Measurements Me-Pm and Risks Rk-Pm	Strategic Constraints St-Ct	Strategic Deployment, St-Rm-D Strategic Phasing St-Rm-P	Strategic Traceability St-Tr	
Operational Op	Requirements Rq-Mv	Operational Taxonomy Op-Tx	Operational Structure Op-Sr	Operational Connectivity Op-Cn	Operational Processes Op-Pr	Operational States Op-St	Operational Sequences Op-Sq	Operational Information Op-If		Operational Constraints Op-Ct		Operational Traceability Op-Tr	
Services Sv		Services Taxonomy Sv-Tx	Services Structure Sv-Sr	Services Connectivity Sv-Cn	Services Processes Sv-Pr	Services States Sv-St	Services Sequences Sv-Sq			Services Constraints Sv-Ct	Services Roadmap Sv-Rm	Services Traceability Sv-Tr	
Personnel Ps		Personnel Taxonomy Ps-Tx	Personnel Structure Ps-Sr	Personnel Connectivity Ps-Cn	Personnel Processes Ps-Pr	Personnel States Ps-St	Personnel Sequences Ps-Sq	Resources Information Rs-If		Competence, Drivers, Performance Ps-Ct	Personnel Availability Ps-Rm-A Personnel Evolution PS-Rm-E Personnel Forecast Ps-Rm-F	Personnel Traceability Ps-Tr	
Resources Rs		Resources Taxonomy Rs-Tx	Resources Structure Rs-Sr	Resources Connectivity Rs-Cn	Resources Processes Rs-Pr	Resources States Rs-St	Resources Sequences Rs-Sq			Resources Constraints Rs-Ct	Resources evolution, Resources forecast Rs-Rm	Resources Traceability Rs-Tr	
Security Sc		Security Controls Sc-Mv	Security Taxonomy Sc-Tx	Security Structure Sc-Sr	Security Connectivity Sc-Cn	Security Processes Sc-Pr					Security Constraints Sc-Ct		Security Traceability Sc-Tr
Projects Pj		Project Taxonomy Pj-Tx	Project Structure Pj-Sr	Project Connectivity Pj-Cn	Project Processes Pj-Pr							Project Roadmap Pj-Rm	Project Traceability Pj-Tr
Standards Sd		Standards Taxonomy Sd-Tx	Standards Structure Sd-Sr									Standards Roadmap Sd-Rm	Standards Traceability Sd-Tr
Actual Resources Ar			Actual Resources Structure, Ar-Sr	Actual Resources Connectivity, Ar-Cn	Simulation <sup>b</sup>						Parametric Execution/ Evaluation <sup>b</sup>		

UAF 1.2 Grid. The grid is a way of showing how the various view specifications (cells) correspond to viewpoints (prev. known as domains) (horizontal rows) and the aspects (prev. known as model kinds) (the columns) that describe the view specification.

The descriptions of all the viewpoints are provided in the following table:

Viewpoint	Acronym	Description
Architecture Management	Am	Identifies the metadata required to develop a suitable architecture that is fit for its purpose.
Strategic	St	Capability management process. Describes the capability taxonomy, composition, dependencies, and evolution.
Operational	Op	Illustrates the Logical Architecture of the enterprise. Describes the requirements, operational behavior, structure, and exchanges required to support (exhibit) capabilities. Defines all operational elements in an implementation/solution-independent manner.

<b>Services</b>	Sv	<p>The Service-Orientated View (SOV) is a description of services needed to directly support the operational domain as described in the Operational View. A service within</p> <p>MODAF is understood in its broadest sense, as a unit of work through which a provider provides a useful result to a consumer.</p> <p>DoDAF: The Service Views within the Services Viewpoint describe the design for service-based solutions to support operational development processes (JCIDS) and Defense Acquisition System or capability development within the Joint Capability Areas.</p>
<b>Personnel</b>	Ps	Defines and explores organizational resource types. Shows the taxonomy of types of organizational resources as well as connections, interaction, and growth over time.
<b>Resources</b>	Rs	Captures a solution architecture consisting of resources, e.g., organizational, software, artifacts, capability configurations, and natural resources that implement the operational requirements. Further design of a resource is typically detailed in SysML or UML.
<b>Security</b>	Sc	Security assets and security enclaves. Defines the hierarchy of security assets and asset owners, security constraints (policy, laws, and guidance), and details where they are located (security enclaves).
<b>Projects</b>	Pj	Describes projects and project milestones, how those projects deliver capabilities, the organizations contributing to the projects, and dependencies between projects.
<b>Standards</b>	Sd	<p>MODAF: Technical Standards Views are extended from the core DoDAF views to include non-technical standards such as operational doctrine, industry process standards, etc.</p> <p>DoDAF: The Standards Views within the Standards Viewpoint are the set of rules governing the arrangement, interaction, and interdependence of solution parts or elements.</p>
<b>Actual Resources</b>	Ar	The analysis, e.g., evaluation of different alternatives, what-if, trade-offs, V&V on the actual resource configurations. Illustrates the expected or achieved actual resource configurations.

The descriptions of all the aspects are provided in the following table:

Aspect	Acronym	Description
<b>Motivation</b>	Mv	Captures motivational elements e.g., challenges, opportunities, and concerns, that pertain to enterprise transformation efforts, and different types of requirements, e.g., operational, services, personnel, resources, or security controls.
<b>Taxonomy</b>	Tx	Presents all the elements as a standalone structure. Presents all the elements as a specialization hierarchy, provides a text definition for each one and references the source of the element.
<b>Structure</b>	Sr	Describes the breakdown of structural elements e.g. logical performers, systems, projects, etc. into their smaller parts.
<b>Connectivity</b>	Cn	Describes the connections, relationships, and interactions between the different elements.
<b>Processes</b>	Pr	Captures activity-based behavior and flows. It describes activities, their Inputs/Outputs, activity actions, and flows between them.
<b>States</b>	St	Captures state-based behavior of an element. It is a graphical representation of states of a structural element and how it responds to various events and actions.
<b>Sequences</b>	Sq	Expresses a time-ordered examination of the exchanges as a result of a particular scenario. Provides a time-ordered examination of the exchanges between participating elements as a result of a particular scenario.
<b>Information</b>	If	Address the information perspective on operational, service, and resource architectures. Allows analysis of an architecture's information and data definition aspect, without consideration of implementation-specific issues.
<b>Parameters</b>	Pm	
<b>Constraints</b>	Ct	Details the measurements that set performance requirements constraining capabilities. Also defines the rules governing behavior and structure.
<b>Roadmap</b>	Rm	Addresses how elements in the architecture change over time.
<b>Traceability</b>	Tr	Describes the mapping between elements in the architecture. This can be between different viewpoints within domains as well as between domains. It can also be between structure and behaviors.

#### UAF 1.2 viewpoints

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- Security
- Projects
- Standards
- Actual Resources
- Parameters Pm
- Requirements