

#### **ENTERPRISE ARCHITECT**

# **User Guide Series**

# Unified Architecture Framework (UAF)

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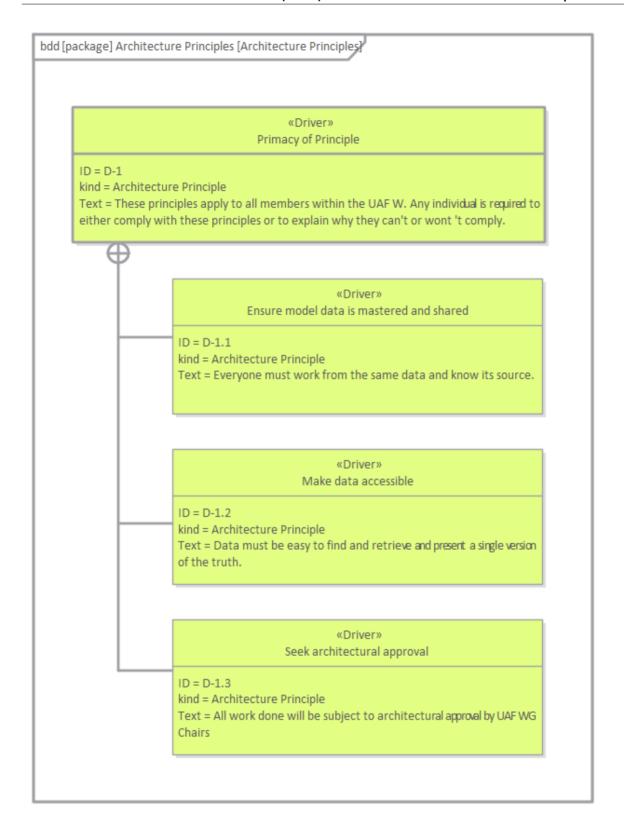


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# **Unified Architecture Framework (UAF)**

The Unified Architecture Framework (UAF) is a comprehensive modeling standard that provides a systematic approach to enterprise and system architecture development, offering standardized viewpoints and modeling constructs that enable organizations to capture, analyze, and communicate complex architectural information effectively. The language is used extensively by commercial organizations, federal government agencies, and defense and aerospace organizations. Architects, Systems Engineers, and other stakeholders use it to model Enterprise Architecture, Mission Critical Systems, System of Systems integration, Cyber-Physical systems, and Digital Transformations. Modelers can model concepts from drivers and risks that impact the enterprise through to systems that implement it.



Sparx Enterprise Architect serves as an ideal platform for UAF modeling, providing native support for UAF profiles and viewpoints while offering powerful visualization

capabilities, collaborative modeling features, and automated documentation generation. The combination of UAF's structured methodology with Enterprise Architect's robust toolset enables architects to create consistent, traceable, and maintainable architectural models that facilitate stakeholder communication, support decision-making processes, and ensure alignment between business strategy and technical implementation across the entire enterprise architecture lifecycle.

#### Why Use UAF

UAF 1.2 (Unified Architecture Framework) is used to model complex systems or systems of systems because it provides a structured and standardized method for documenting architectures. It connects the strategic, high-level perspective with the technical detail required for implementation, offering a unified approach that ensures clarity and consistency. With its wide range of predefined viewpoints and modeling elements, UAF 1.2 is purpose-built to capture the intricate relationships, dependencies, and interfaces that arise within and between interconnected systems. These viewpoints enable the production of architectural descriptions that are both consistent and interoperable, providing value to a wide range of stakeholders—from executives focused on strategy to engineers concerned with technical details—thereby enhancing communication and decision-making across organizational boundaries.

A key strength of the framework lies in its ability to

represent the inherent complexity of systems of systems, where multiple autonomous systems must interact to deliver combined capabilities beyond what each could achieve on its own. UAF 1.2 includes constructs for mapping operational scenarios, defining capability needs, describing system structures, and modeling flows of information, materiel, and personnel across system boundaries. Because it aligns with widely recognized international standards, such as NATO's Architecture Framework (NAF) and the US Department of Defense's DoDAF, it holds particular relevance for defense organizations and large enterprises where interoperability and standardization are essential. By adopting UAF 1.2, modelers can develop architectures that are not only thorough and logically structured but also fully compatible with existing frameworks and tools, thereby reducing misalignment, supporting integration, and ensuring systems evolve effectively over time.

#### **Benefits of Using UAF in Enterprise Architect**

Creating UAF models in Sparx Enterprise Architect offers significant advantages through its comprehensive modeling environment, which extends far beyond basic diagramming capabilities. The platform's extensive collaboration features, including model mail, discussions, journals, chat, and reviews, enable distributed teams to work simultaneously on complex architectural models through shared repositories, version control, and real-time synchronization, ensuring that all stakeholders maintain access to the latest

architectural information while preventing conflicts and maintaining model integrity. Enterprise Architect's powerful linking and traceability capabilities allow UAF models to be seamlessly connected to other model types, including system models (SysML), software models (UML), business process models (BPMN), and requirements models, creating a unified modeling environment where changes in one domain can be traced to related elements, maintaining consistency across the entire system lifecycle and enabling comprehensive impact analysis.

The platform's simulation and analysis features bring UAF models to life by enabling dynamic behavior modeling, allowing architects to validate operational scenarios, test system interactions, and identify potential bottlenecks or failure points before physical implementation. Enterprise Architect's sophisticated and flexible documentation generation capabilities automatically produce comprehensive architectural documentation from UAF models, including customizable reports, diagrams, and specifications that modelers and managers can tailor to different stakeholder needs and organizational and contractual standards. The full suite of UAF viewpoint patterns and templates built into Enterprise Architect accelerates model development by providing pre-configured patterns for all UAF 1.2 viewpoints, complete with proper stereotypes, relationships, and extensive documentation, ensuring compliance with the standard while dramatically reducing the time and expertise required to create professional-quality architectural models that can serve as authoritative references throughout the system development

lifecycle.

#### **UAF ViewPoints**

UAF 1.2 Viewpoints provide logical lenses that allow modelers to define, view, explore, and document various dimensions of complex systems and architectures. The standard specifies distinct viewpoints to address distinct stakeholder concerns and analytical requirements, ensuring that engineers and other stakeholders don't overlook a system's critical architectural aspects. The framework categorizes these viewpoints into categories such as Taxonomy, Operational, Services, Systems, Personnel, Project, Security, Standards, and Actual Resources, providing comprehensive coverage from overarching mission goals to precise technical details. Within each viewpoint, modelers apply specific model elements and relationships to capture the most relevant information, while filtering out unnecessary detail so stakeholders can concentrate on what matters most to their responsibilities and decisions.

This approach delivers several advantages: more transparent communication through targeted visual representations, stronger traceability between requirements and solutions, simplified modeling by breaking down complexity, and greater reuse of architectural outputs across multiple initiatives. Standardized templates and conventions further ensure that architectural information is recorded and communicated consistently, strengthening collaboration

among teams, streamlining design reviews, and supporting more effective system development and integration.

#### Access

Ribbon	Design > Package > Model Builder : <perspective name=""> button &gt; Systems Engineering &gt; UAF</perspective>
Context Menu	Right-click on a Package > Model Builder (pattern library) : <perspective name&gt; button &gt; Systems Engineering &gt; UAF</perspective 
Keyboard Shortcuts	Ctrl+Shift+M: <perspective name=""> button &gt; Systems Engineering &gt; UAF</perspective>
Other	Click on the button in the top right corner of the screen, and select the 'Systems Engineering   UAF' Perspective

#### **Overview of Topics**

This table lists the main topics that describe the implementation of the Unified Architecture Framework (UAF) in Enterprise Architect. Architects, System

Engineers, Project Managers and other stakeholders will learn how to start modeling with the UAF and will be introduced to the features available within the tool to create expressive diagrams and views with the framework and language. Further topics will describe the creation of Views and Viewpoints and how to create diagrams that contain elements and relationships and will detail all these concepts. Later topics discuss the migration from earlier versions of the language to the latest version and also how to exchange models.

Brief Introduction	This topic provides an introduction to the Unified Architecture Framework in Enterprise Architect and discusses its relevance and importance in creating and maintaining Enterprise Architecture models of an enterprise, mission or system of systems.
Getting Started	This topic provides the information needed to immediately start modeling with the UAF, including the UAF Perspective and the Model Builder patterns.
Example Diagram	This topic covers the basic tool features to create Packages, diagrams and elements, including showing how existing and new elements can be added

	to diagrams.
Modeling with the UAF	This topic covers the practical things you need to know to start modeling including adding content using patterns and how to add new UAF elements from the toolbox and existing elements from the project browser.
Views and Viewpoints	This topic describes the UAF views providing examples of each viewpoint available for immediate creation from the Model Builder pattern tool.

# Introduction to the Unified Architecture Framework (UAF)

Welcome to the Unified Architecture Framework, fully integrated with Enterprise Architect. The tool not only supports all of the framework and language features, including productivity features, but also provides a collaboration platform that will allow architects, systems engineers, testers and other stakeholders from management down to implementation and support teams to view and contribute to the architecture and the value it brings to the organization.

The Unified Architecture Framework (UAF) 1.2 is a comprehensive modeling standard that enables architects and systems engineers, managers and other stakeholders to create precise, standardized representations of complex enterprises and systems. As an Object Management Group (OMG) standard, UAF supports the development of architectural descriptions across commercial industries, government agencies, and defense organizations, offering a Model-Based Systems Engineering (MBSE) approach to describing enterprise-level systems. Designed to handle architectures that span hardware, software, data, personnel, and facilities, UAF 1.2 is particularly valuable for organizations managing multi-domain, highly integrated challenges.

# **About the Unified Architecture Framework** (UAF)

The Unified Architecture Framework (UAF) 1.2, developed by the Object Management Group (OMG), is a robust modeling standard designed to capture the full spectrum of enterprise architectures across commercial, government, and industrial domains. It addresses diverse needs, including business, operational, and system-of-systems integration. UAF provides a structured set of rules and concepts that enable the creation of consistent, semantically rich architecture models. These models act as comprehensive repositories from which modelers can create multiple tailored views.

UAF Architecture Management Views

UAF Summary and Overview Views

UAF Strategic Views

UAF Operational Views

UAF Services Views

UAF Personnel Views

UAF Resources Views

UAF Security Views

UAF Security Views

UAF Standards Views

UAF Actual Resources Views

UAF Motivation Views

UAF Information Views

UAF Parameters Views

UAF supports a wide range of applications, from enterprise and mission architecture to system-of-systems and cyber-physical systems engineering, and plays a key role in digital transformation initiatives. It is also compatible with established defense frameworks, such as the Department of Defense Architecture Framework (DoDAF) and NATO Architecture Framework (NAF). By aligning with ISO/IEC/IEEE 42010:2011, UAF ensures its architectural descriptions meet international standards while also serving as the successor to DoDAF, capable of automatically generating DoDAF-compliant views alongside numerous other valuable perspectives.

The designers intentionally designed the framework to be accessible not only to enterprise architects and systems engineers but also to executives, managers, and decision-makers who must interpret, manage, and oversee complex architectures.

#### Value and Benefits

The Unified Architecture Framework (UAF) 1.2 was created to close the communication gap between business leaders and technical professionals involved in enterprise architecture. The language is accessible not only to enterprise architects, systems engineers, and Information technology engineers but also to executives and enterprise managers who sponsor and guide such initiatives. By defining standardized ways to represent enterprise architecture, UAF enables stakeholders to concentrate on their areas of concern while still maintaining awareness of the overall enterprise context. This ensures that both technical implementers and business decision-makers can

collaborate effectively through a shared architectural language and visualization framework. Some of the key benefits and value of the framework inleude:

#### **Improved Traceability and Decision Support**

UAF strengthens traceability across domains, enabling decision-makers to follow requirements from high-level enterprise goals down to detailed implementation. This ensures mission components operate in alignment and provides enterprise managers, program managers, and executives with better oversight and strategic consistency.

#### **System-of-Systems Modeling for Engineers**

The framework supports consistent modeling of complex system-of-systems (SoS), bridging enterprise-level architecture with detailed design and implementation. This makes it particularly valuable for systems engineers and architects working on large, interconnected systems spanning multiple domains and organizations.

#### **Rapid Adoption for Experienced Teams**

For teams already familiar with UAF, the framework offers a minimal learning curve, allowing architects and engineers to quickly adapt to new roles or projects. Unlike adopting an entirely new modeling language, UAF enables teams to begin delivering value immediately with little additional training.

#### Accessibility for All Stakeholders

UAF specifications are designed to be clear not only to enterprise and systems architects but also to executives, sponsors, and program managers. This broad accessibility fosters collaboration and ensures that stakeholders at all levels can engage meaningfully in architectural discussions.

#### **Standards-Based Tool Interoperability**

By supporting both SysML-based tools and those aligned with other standards, UAF enhances interoperability across diverse modeling environments. This benefits tool users, integrators, and cross-functional teams that rely on exchanging architecture information across different platforms.

#### **Integrated Security and Risk Management**

UAF embeds security, risk, and compliance considerations into its modeling approach, covering the full lifecycle from design through implementation. This helps security architects, risk managers, and compliance officers define consistent SoS architectures that address threats and apply effective mitigation strategies.

# **Getting Started**

Modeling with UAF 1.2 typically begins with defining the architectural scope and capturing stakeholder concerns. From there, the framework guides the creation of interconnected views that present different perspectives of the system, underpinned by a consistent set of rules and semantic concepts. These models act as structured repositories from which multiple views can be generated, ensuring coherence and reuse. UAF is especially effective for System-of-Systems (SoS) engineering, supporting analysis, specification, design, and verification across multiple levels - from broad enterprise views down to detailed design and implementation. This structured approach strengthens traceability, consistency, and stakeholder collaboration, while aligning diverse tools and practices within the MBSE ecosystem.

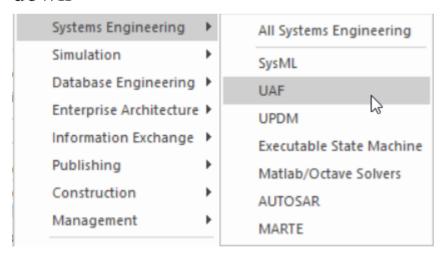
Enterprise Architect supports a wide range of languages and frameworks in addition to the UAF, which are all available within the tool depending on the edition that you are running. This provides great flexibility as it allows languages to be used in combination; for example, even though most of your architecture might be developed using the Unified Architecture Framework there could be occasions when you need to create a Mind Map to document a stakeholder workshop or run a simulation of a Business Process to fully understand it. The tool provides a series of Perspectives that let you select a single aspect, language or

discipline within the tool, allowing you to focus, but when you need to you can simply switch to an alternative perspective.

#### **UAF Perspective**

The UAF Perspective allows you to focus on architecture analysis and modeling using the Unifed Architecture Framework language. To switch to the UAF Perspective you need to:

- 1. Click on the <a></a> <a></a
- 2. Select *Enterprise Architecture > UAF* from the drop down



Enterprise Architect now will allow you to focus on modeling with the UAF, by limiting the available diagram types, toolbox and language features to the UAF technology. It will also open the Model Builder, allowing you to kick-start your modeling with a series of pre-built patterns that fully support the UAF Viewpoint mechanism.

Please note: If you select the 'UAF' perspective, you will

be using UAF 1.2. If you want to use UAF 1.1, select the perspective 'All Enterprise Architecture' or create your own custom perspective.

#### **Model Builder Patterns**

The Model Builder is a productivity tool that allows you to create compliant model content based on the chosen example viewpoint, selected from these viewpoint groups:

- UAF Architecture Management
- UAF Summary and Overview
- UAF Strategic
- UAF Operational
- UAF Services
- UAF Personnel
- UAF Resources
- UAF Security
- UAF Projects
- UAF Standards
- UAF Actual Resources
- UAF Motivation
- UAF Information
- UAF Parameters

The model patterns contained in the Model Builder are fully documented and provide valuable information that describes the viewpoint and how it can be used.

```
UAF Architecture Management Views

Architecture Principles Am-Mv

Architecture Extensions Am-Tx

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
```

The pattern documentation provides a detailed description of the pattern (in this case a viewpoint) and an example diagram that shows the user what will be generated, including the model content and details of how to use the pattern. This illustration shows the first part of the documentation for the Strategic Motivation (St-Mv) view used by Enterprise Architects, Portfolio Managers, Enterprise Systems Engineers, and Program Managers, whose concerns encompass architecture drivers, challenges, opportunities, capabilities that address opportunities, and phases and architectures that address challenges. The definition identifies and defines the drivers, challenges, and opportunities that are applicable to the architecture defining the desired outcomes, goals, and objectives that are motivated by the drivers, and the opportunities that enable the goals and objectives.

The documentation clearly describes the viewpoint and

provides images that not only show the diagrams that will be created, but also in applicable patterns shows a screenshot of the Browser window, the elements that would be created and the resulting repository structure. The content includes

- Overview of the Pattern
- Diagrams and Visualizations
- Elements and Connectors included in this viewpoint
- Usage Scenarios
- Discussion
- Workspace Layouts
- References
- Useful Tools

The discussion provides tips that will help architect, engineers, and other stakeholders work with the pattern, including next steps and how to work with the pattern elements. The usage scenarios provide modelers with ways to use this view.

#### Elements and Connectors included in this viewpoint

The following elements and connectors can be included in a diagram or list for this viewpoint.

<ul> <li>Actual Enduring Task</li> </ul>	Enterprise Goal	<ul> <li>Opportunity</li> </ul>
Actual Outcome	Enterprise Objective	Presented By
<ul> <li>Capability</li> </ul>	Impacted By	Resource Architecture
<ul> <li>Capability Configuration</li> </ul>	Motivated By	Resource Mitigation
Challenge	<ul> <li>Operational Activity</li> </ul>	Security Enclave
• Driver	Operational Architecture	Service Architecture
• Enables	Operational Mitigation	<ul> <li>System</li> </ul>

#### **Usage Scenarios**

The following points describe the key ways stakeholders can use this view.

#### **Defining Strategic Purpose**

The viewpoint represents Intended goals ,outcomes, aspirations, and targets to establish common vision of the organization and project's ambitions.

#### **Recording Opportunities and Motivators**

Includes elements that drive the architecture, including drivers, opportunities, challenges, and other factors that impact the strategy and the architectural definition.

#### **Facilitating Accountability and Traceability**

The viewpoint connects strategic aspirations captured in the goals to subordinate architectural components, establishing accountability from executive aspirations to operational and technical execution.

#### **Enhancing Decision Processes**

Through visualizing dependencies and motivations, it assists management in ranking initiatives and addressing competing aspirations.

The model patterns contained in the Model Builder are fully documented and provide valuable information that describes the viewpoint and how it can be used.

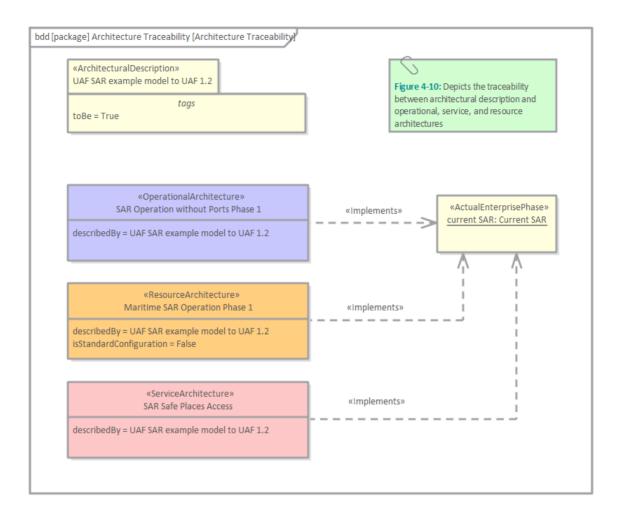
The pattern documentation provides a detailed description of the pattern (in this case a viewpoint) and an example diagram that shows the user what will be generated, including the model content and details of how to use the pattern. This illustration shows the documentation for one of the most important Strategy Viewpoints - the Capability Map viewpoint, which allows Business Architects to create a structured overview of the capabilities of the enterprise.

The documentation clearly describes the viewpoint and provides images that not only show the diagrams that will be created, but also show a screenshot of the Browser window, the elements that would be created and the resulting repository structure. The discussion provides tips that will help the architects and other stakeholders work with the pattern, including next steps and how to manipulate the pattern elements. There is also a list of Help topics and a set of tools that can be used when working with the pattern.

# **Example Diagram**

The following diagram is an example of a architecture traceability viewpoint diagram using a SysML Block Definition diagram. It has been created in Enterprise Architect and is a replica of an example from the UAF 1.2 Search and Rescue Example.

The Sample Problem applies the Unified Architecture Framework (UAF) to a familiar scenario in civilian maritime Search and Rescue (SAR) operations - specifically a yacht in distress. A monitoring unit detects a distress signal from the yacht and relays it on to the Command and Control (C2) Center. The C2 Center coordinates the search and rescue operation among helicopters, a naval ship, and a civilian voluntary sea rescue organization.



This diagram illustrates the architecture traceability for a UAF (Unified Architecture Framework) 1.2 Search and Rescue (SAR) example model. The diagram depicts how various types of architectures interconnect and relate to actual enterprise implementation.

The diagram shows four main architectural components:

Architectural Description (top): This represents the overarching UAF SAR example model converted to UAF 1.2 format, with a "toBe = True" tag indicating this is a target or future state architecture.

There are three types of architectures displayed on the diagram, all of which implement the SAR Actual Enterprise

#### Phase, namely:

Operational Architecture (purple): Describes the SAR Operation Maritime Phase 1, showing the operational processes and workflows

Resource Architecture (orange): Covers Maritime SAR Operation Phase 1 resources, with "isStandardConfiguration = False" indicating a customized resource setup

Service Architecture (pink): Represents SAR Safe Places Access services

All three architecture types reference the same foundational model ("describedBy = UAF SAR example model to UAF 1.2").

Implementation (right): The "Actual Enterprise Phase" represents the current SAR implementation, illustrating how the architectural designs are translated into real-world operations.

The dashed arrows labeled "implements" illustrate the traceability flow from each architecture to the actual enterprise implementation, demonstrating how theoretical architectural descriptions connect to practical, operational reality. This traceability is essential for ensuring that architectural planning aligns with actual system deployment and operations.

# Modeling with the UAF

With the UAF perspective selected, as shown in the "Getting Started" topic, all language features, including concepts, diagrams, and views and viewpoints, will be available to the modeler. Enterprise Architect also provides a way to create a repository structure using Packages that act as containers for the elements and diagrams you create to describe your enterprise. There is also a wide range of tools helpful in working with the UAF models, including diagram filters, legends, notes, and tools for navigating and searching, which will be particularly useful as your models become larger.

Enterprises and systems have become increasingly complex, and to achieve desired outcomes, architects, engineers, managers, and a wide range of other stakeholders must collaborate, often in distributed settings. Teamwork and collaboration are essential, as Enterprise Architecture models usually grow organically with multiple architects contributing to a central model. Enterprise Architect is fundamentally a collaboration platform that enables architects, engineers, and other stakeholders and contributors to work together, sharing ideas and utilizing discussion, review, and other collaboration features to ensure the creation of robust and relevant architectures.

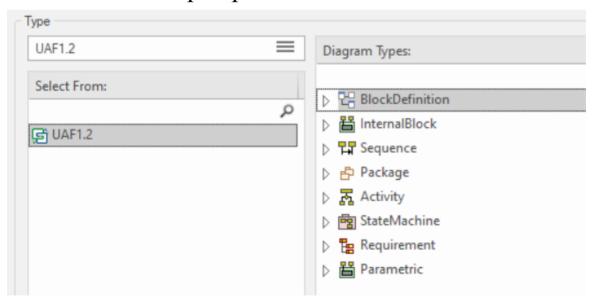
#### **Adding Diagrams**

Diagrams are one of the most useful ways of

communicating with other team members and with stakeholders who have an interest in the enterprise architecture. Diagrams can be created in different ways:

- An empty diagram can be created and existing elements can be added from the Browser window, or new elements and connectors can be added from the Diagram Toolbox
- A diagram can be created from a user-defined pattern that also contains elements and connectors

In the next section we will also explore another method by which a diagram can be created using the Model Builder tool. As a modeler you are likely to use all of these methods at different times, depending on the circumstances and the modeling context. To create a new UAF diagram you can use one of these methods, ensuring that you have first chosen the UAF perspective.



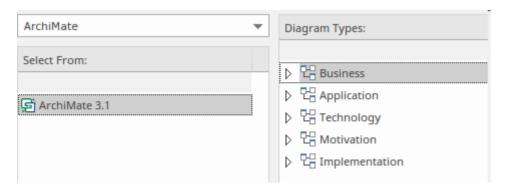


Figure: New Diagram dialog showing the UAF diagram types

#### **Creating a Package Structure**

There are two approaches to creating a suitable Package structure for your UAF models within Enterprise Architect, both of which mimic the enterprise architecture methods.

- An initial well developed Package structure that is changed very little through the course of model development for an initiative
- A skeleton model that contains the main Packages and is augmented as new needs are understood, and changed significantly during an initiative

Either of these methods can be used, or a team could consider a hybrid approach; either way new Packages need to be created in Enterprise Architect that will act as the containers for new elements and diagrams.



Figure: Showing the Package structure in the 'Project' panel of the Browser window.

#### **Adding Views and Viewpoints**

The Unified Architecture Framework and language defines a series of example viewpoints designed to provide representations that are meaningful and relevant to a variety of stakeholders. These viewpoints are made available in Enterprise Architect through the Diagram Builder dialog or the Model Builder patterns, which provide a way of creating both repository content and diagrams that show how the elements are connected by relationships. Thus new diagrams can be created.

• A new view can be created using the Diagram Builder dialog with restriction to the selected Viewpoint.

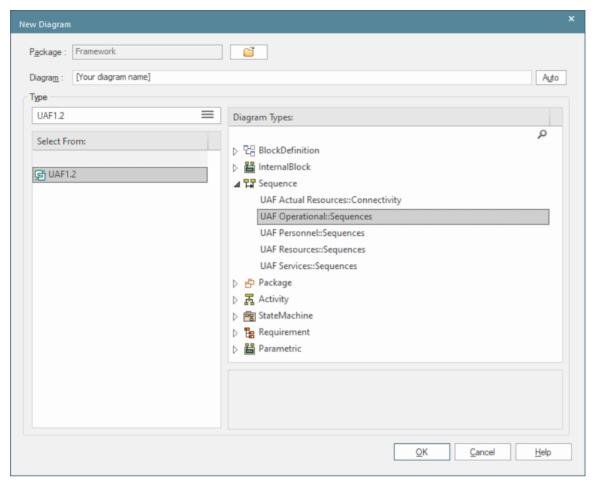


Figure: Showing the Diagram Builder dialog for the Stakeholder Viewpoint in the Motivation Viewpoints group.

• A diagram, its elements and connectors can be added using the Model Builder.

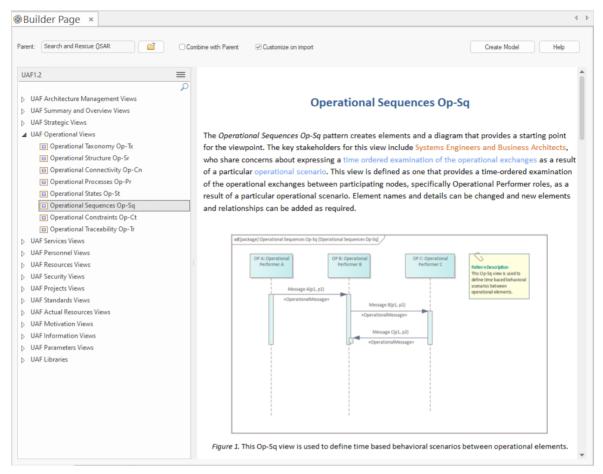
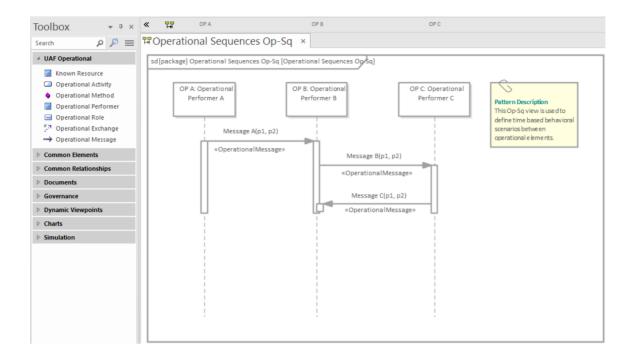


Figure: Showing the Model Builder and the Stakeholder Viewpoint in the Motivation Viewpoints group.

When the view has been created the diagram toolbox will restrict the elements and connectors to only those that are part of the viewpoint.



#### **Adding Elements and Relationships**

Elements can be added to the model directly without the need for a diagram to be created, but it is far more common for a diagram to be the device that is used to add both elements and connectors to the model. Diagrams can be built up with a combination of:

- Existing elements dragged from the Browser
- New elements (or Relationships) dragged from the Diagram Toolbox pages

#### **Adding Elements from the Browser**

This diagram shows how elements can be added from the Browser window by dragging and dropping them onto the current open diagram canvas.

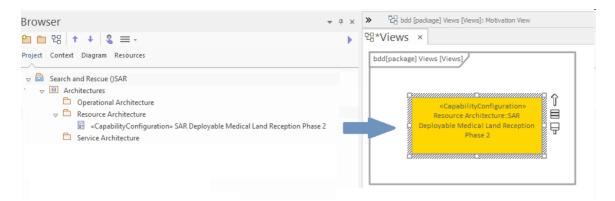
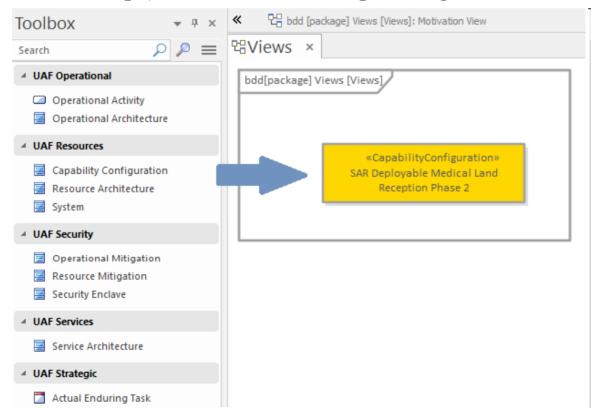


Figure: Showing an existing element being dragged from the Browser window

#### **Adding Elements from the Toolbox**

This diagram shows how elements can be added from the Toolbox pages by dragging and dropping elements (or relationships) onto the current open diagram canvas.



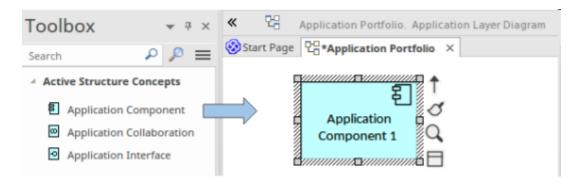


Figure: Showing an existing element being dragged from a Toolbox page

#### **Changing Elements and Relationships**

Any element or relationship can be changed including its name and properties. When a change is made to an element in any location, for example in a diagram this change will be reflected in any other diagrams (view) that contains the element or relationship.

#### **UAF ViewPoints**

In the Unified Architecture Framework (UAF), viewpoints function as structured groupings that address distinct stakeholder concerns across multiple domains of enterprise architecture. Organized in a two-dimensional grid, the rows reflect stakeholder-related concerns while the columns represent architectural domains, creating a systematic way to align perspectives with areas of interest.



This structure allows stakeholders to examine specific aspects of the enterprise without losing sight of the overall context, ensuring that complex system architectures can be modeled and interpreted from multiple perspectives. UAF arranges these viewpoints across major domains—including Metadata, Strategic, Operational, and Personnel—providing architects with a standardized method to capture and represent an organization's structures, processes, and capabilities in a coherent and consistent manner.

# **UAF Architecture Management Views**

The Architecture Management viewpoint, introduced in UAF 1.2, focuses on how architecture initiatives are governed and coordinated. It encompasses a set of views that include both formal architecture products and reports, along with recommended practices contributed by the UAF specification team. As part of the Unified Architecture Framework Specification Version 1.2, this viewpoint is one of the key perspectives supporting the overall framework. Its emphasis is not on the technical content of architectures, but rather on the processes, methods, and practices for managing them. It provides stakeholders with practical guidance for structuring architecture activities, monitoring progress, and ensuring that outcomes remain aligned with organizational goals and established standards.

UAF Architecture Management Views
Architecture Principles Am-Mv
Architecture Extensions Am-Tx
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

## **UAF Architecture Management Views**

Stakeholders: Enterprise Architects, Enterprise Systems Engineers, Model Managers, System Architects.
Concerns: alignment of architecture with architecture heuristics, guidelines, and principles.
<b>Definition:</b> identifies relevant architectural principles and other guidelines to be used in architecture development and evaluation.
Stakeholders: Enterprise Architects, Model Managers, Modelers, Technical Managers.
Concerns: Domains, viewpoints, aspects, model kinds, and view specifications that are used to describe the architecture.
<b>Definition:</b> (i) Lists predefined and custom domains, model kinds, viewpoints, aspects, and view specifications (ii) and identify the key stakeholders and their perspectives and concerns.

Architecture References Am-Cn	Stakeholders: Enterprise Architects, Model Managers, Modelers, Enterprise Systems Engineers.
	Concerns: Development sequence of models and views and how they are related to each other.
	<b>Definition:</b> Defines workflow or process steps used in managing the architecture development.
Architecture Development Method Am-Pr	Stakeholders: Enterprise Architects, Model Managers, Modelers, Enterprise Systems Engineers.
	Concerns: Development sequence of models and views and how they are related to each other.
	<b>Definition:</b> Defines workflow or process steps used in managing the architecture development.
Architecture Status Am-St	Stakeholders: Enterprise Architects, people who want to understand the architecture governance, Technical Managers.

	Concerns: Architecture status.  Definition: Captures version number and approval workflow of the architecture.
Dictionary Am-If	Stakeholders: Solution Providers, Systems Engineers, Software Architects, Business Architects.
	Concerns: Provides a central reference for a given architecture's data and metadata. It enables the set of architecture description to stand alone, with minimal reference to outside resources.
	<b>Definition:</b> Contains definitions of terms used in the given architecture. It consists of textual definitions in the form of a glossary, their taxonomies, and their metadata (i.e., data about architecture data), including metadata for any custom tailored views. Architects should use standard terms where possible (i.e., terms from existing, approved dictionaries, glossaries, and lexicons).

Architecture Parameters Am-Pm	Stakeholders: Enterprise Architects, Enterprise Systems Engineers, Model Managers, System Architects.  Concerns: Architecture parameters.  Definition: Depicts and analyzes measures and measurements that are applicable to management of the architecture.
Architecture Constraints Am-Ct	Stakeholders: Enterprise Architects, people who want to understand the architecture constraints, Technical Managers.  Concerns: Architecture assumptions and constraints.
	<b>Definition:</b> Depicts and analyzes assumptions, constraints, rules, policy and guidance that are applicable to aspects of the architecture.
Architecture Roadmap Am-Rm	Stakeholders: Enterprise Architects, people who want to understand the architecture development plan, Technical Managers.

	Concerns: Architecture release schedule.  Definition: Captures project timeline for the architecture.
Architecture Traceability Am-Tr	Stakeholders: Enterprise Architects, people who want to understand impact of change across the architecture supporting assets, Technical Managers.
	Concerns: Reuse of architectures.
	<b>Definition:</b> Shows references to operational, services, and resource architectures, asset libraries, legacy architectures, and external sources, e.g., documents.

# **UAF Summary and Overview Views**

The UAF 1.2 Summary and Overview viewpoints provide a high-level diagram that visualizes the ArchitecturalDescription definition, summarizing the overall architecture—its guiding vision, intended deployment environments, and the projects that support its realization. These viewpoints give stakeholders an executive-level perspective by consolidating key elements such as vision, context, deployment conditions, and implementation efforts. Designed for quick reference and easy comparison across different architectural descriptions, they deliver a clear, accessible summary that helps diverse stakeholder groups and organizational levels grasp the essential scope and direction of the enterprise architecture.



## **UAF Summary and Overview Views**

Summary and Overview Sm-Ov	Stakeholders: Decision makers, Solution Providers, Systems Engineers, Software Architects, Business Architects.
	Concerns: quick overview of an architecture description and summary of

analysis. In the initial phases of architecture development, it serves as a planning guide. Upon completion of an architecture, it provides a summary of findings, and any conducted analysis.

**Definition:** provides executive-level summary information in a consistent form that allows quick reference and comparison among architectures. The Summary and Overview includes assumptions, constraints, and limitations that may affect high-level decision processes involving the architecture.

## **UAF Strategic Views**

The UAF 1.2 Strategic Viewpoints offer a structured way to capture and analyze the high-level context that shapes enterprise architecture decisions and capability planning. Their purpose is to highlight the key drivers, challenges, and opportunities that influence an organization's strategic direction, creating the baseline from which capabilities are defined and validated. Through these viewpoints, architects and planners can represent the relationships between external forces, internal constraints, competitive advantages, and the capabilities required to meet strategic aims. This structured representation ensures that business goals are directly connected to architectural choices, providing a clear rationale for technical and operational decisions while maintaining alignment with the organization's overarching mission and long-term objectives.

UAF Strategic Views

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

Strategic Constraints St-Ct

Strategic Deployment St-Rm-D

Strategic Phasing St-Rm-P

Strategic Traceability St-Tr

# **UAF Strategic Views**

Strategic Motivation St-Mv	Stakeholders: Enterprise Architects, Portfolio Managers, Enterprise Systems Engineers, Program Managers.
	Concerns: Architecture drivers, challenges, opportunities, capabilities that address opportunities, phases and architectures that address challenges.
	<b>Definition:</b> Identifies and defines the drivers, challenges, and opportunities that are applicable to the architecture; defines the desired outcomes, goals, and objectives that are motivated by the drivers; and the opportunities that enable the goals and objectives.
Strategic Taxonomy St-Tx	Stakeholders: Project Managers, Enterprise Architects, Executives.  Concerns: Capability needs.
	Definition: Shows the taxonomy of capabilities.

Strategic	Stakeholders: Program/Project
Structure	Managers, Portfolio Managers, Enterprise
St-Sr	Architects, Executives.
	Concerns: Capability composition.
	<b>Definition:</b> Shows the composition of capabilities.
Strategic	Stakeholders: PMs, Executives,
Connectivity St-Cn	Enterprise Architects.
	Concerns: Capability dependencies.
	<b>Definition:</b> Describes the dependencies between planned capabilities.
Strategic	Stakeholders: Program and Project
Processes	Managers, Portfolio Managers, Enterprise
St-Pr	Architects, Executives.
	Concerns: Capability phasing.
	<b>Definition:</b> Shows the relationship
	between strategic phases and the
	Capabilities that are intended to be
	developed during the strategic phases,

	and the actual organizations involved.
Strategic States St-St	Stakeholders: Program/Project Managers, Portfolio Managers, Enterprise Architects.
	Concerns: Effects that the implementation(s) of capabilities are expected to deliver.
	<b>Definition:</b> Captures the relationships between capability(ies) and desired effect(s) that implementation(s) of capability(ies) should achieve.
Strategic Information St-If	Stakeholders: Enterprise Architects, Portfolio Managers, Enterprise Systems Engineers, Business Managers.
	Concerns: Information that can be considered to be an enterprise strategic asset that can influence achievement of enterprise goals.
	<b>Definition:</b> Identifies and defines strategic information elements and their relationships that are applicable to the architecture.

Strategic Constraints St-Ct	Stakeholders: Project Managers, Enterprise Architects.
	Concerns: Capability constraints.
	<b>Definition:</b> Details the measurements that set performance requirements constraining capabilities.
Strategic Deployment St-Rm-D	Stakeholders: PMs, Executives, Enterprise Architects.
	Concerns: Capability deployment to organizations over time.
	<b>Definition:</b> Addresses the deployment of capability(ies) to actual organizations over time.
Strategic Phasing St-Rm-P	Stakeholders: Project Managers, Executives, Enterprise Architects.
	Concerns: Capability deployment to organizations over time.
	<b>Definition:</b> Addresses the deployment of capability(ies) to actual organizations

	over time.
Strategic Traceability St-Tr	Stakeholders: Program and Project Managers, Portfolio Managers, Enterprise Architects, Business Architects.
	Concerns: Traceability between capabilities and phases, missions, value streams, enduring tasks, challenges, and drivers.
	<b>Definition:</b> Describes the mapping between the capabilities required by an Enterprise and the phasing constructs and association with relevant challenges and drivers. Recommended Implementation: matrix format, SysML Block Definition Diagram.

# **UAF Operational Views**

The UAF 1.2 Operational Viewpoints provide perspectives that describe how an organization functions at a logical, business-oriented level, focusing on the operational domain as a central layer of the enterprise architecture framework. These viewpoints capture operational activities, performers, and behaviors, serving as a foundation for enterprise architecture, system-of-systems engineering, and complex systems modeling across commercial, government, and defense contexts.

Within UAF's two-dimensional grid structure, operational viewpoints represent stakeholder concerns about how the enterprise operates, positioned alongside other domains such as strategic, personnel, resources, and services. As part of the UAF Domain Metamodel, they enable architects to design consistent operational architectures that link capabilities, requirements, and behaviors from early design through implementation, ensuring coherence in complex enterprise and system-of-systems environments.

```
UAF Operational Views

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 Constraints Op-Ct

Operational Traceability Op-Tr
```

# **UAF Operational Views**

Operational Taxonomy Op-Tx	Stakeholders: Business Architects, Systems Engineers, Enterprise Architects, Owners responsible for Operational Agents.  Concerns: Operational Agent types.  Definition: Shows the taxonomy of types of Operational Agents.
Operational Structure Op-Sr	Stakeholders: Business Architects, Systems Engineers, Enterprise Architects, Owners responsible for Operational Agents.  Concerns: Identifies the operational exchange requirements between Operational Performers.
	<b>Definition:</b> Defines operational architecture and exchange requirements necessary to support a specific set of Capability(ies).
Operational	Stakeholders: Systems Engineers,

Connectivity Op-Cn	Architects, Solution Providers.
	Concerns: Capture the interfaces between Operational Performers.
	Definition: Summarizes logical exchanges between Operational Performers of information, systems, personnel, energy etc. and the logical activities that produce and consume them. Measurements can optionally be included.
Operational Processes Op-Pr	Stakeholders: Business Architect, Systems Engineers, Enterprise Architects
	Concerns: Captures activity based behavior and flows.
	<b>Definition</b> : Describes the activities that are normally conducted in the course of achieving business goals that support a capability. It describes operational activities, their Inputs/Outputs, operational activity actions and flows between them.
Operational	Stakeholders: Systems Engineers,

States Op-St	Software Engineers.
	Concerns: Capture state-based behavior of an operational OperationalPerformer.
	<b>Definition:</b> It is a graphical representation of states of an operational OperationalPerformer and how that operational OperationalPerformer responds to various events and actions.
Operational Sequences Op-Sq	Stakeholders: Systems Engineers, Business Architects.
	Concerns: Express a time ordered examination of the operational exchanges as a result of a particular operational scenario.
	<b>Definition:</b> Provides a time-ordered examination of the operational exchanges between participating nodes (OperationalPerformer roles) as a result of a particular operational scenario.
Operational Constraints Op-Ct	Stakeholders: Systems Engineers, Architects, Program Sponsors

**Concerns:** Define operational limitations, constraints, and performance parameters for the enterprise.

**Definition:** Specifies traditional textual operational or business rules that are constraints on the way that business is done in the enterprise. The addition of SysML parametrics provides a computational means of defining operational constraints across the enterprise or within a specific operational context.

# Operational Traceability Op-Tr

**Stakeholders:** Project Managers, Enterprise Architects, Business Architects.

**Concerns**: Traceability between capabilities and operational activities and capabilities and operational agents.

**Definition:** Describes the mapping between the capabilities required by an Enterprise and the supporting operational activities and operational agents.

### **UAF Services Views**

The UAF Services Views encompass a set of viewpoints that describe services and their interconnections in support of DoD functions, covering both warfighting and business domains. These viewpoints link service resources to operational and capability requirements, ensuring alignment with operational activities and enabling effective information exchange. Within the broader architecture, they explore how services are contextualized by mapping resource flows, analyzing service functionality and behavior, modeling task workflows and functional decompositions, and creating matrices that define relationships between systems and services. They also capture the specifications of service connections that implement operational resource flow exchanges. Taken together, the Services Views provide a comprehensive perspective on service-oriented architecture, bridging operational needs with the technical realization of services that underpin organizational functions and enterprise-wide information sharing.

V 🗀 UA	AF Services Views
> 🗀	ServicesTaxonomy Sv-Tx
> 🗀	Services Structure Sv-Sr
> 🗀	Services Connectivity Sv-Cn
> 🗀	Services Processes Sv-Pr
> 🗀	Services States Sv-St
> 🗀	Services Sequences St-Sq
> 🗀	Services Constraints Sv-Ct
> 🗀	Services Roadmap Sv-Rm
> 🗀	Services Traceability Sv-Tr

## **UAF Services Views**

ServicesTaxo nomy Sv-Tx	Stakeholders: Enterprise Architects, Solution Providers, Systems Engineers, Software Architects, Business Architects.
	Concerns: Service types and required and provided service levels of these types.
	<b>Definition:</b> Shows the taxonomy of types of services and the level of service that they are expected to provide or are required to meet through the display of actual measurements associated with the Provided and Required Service Level.
Services	Stakeholders: Solution Providers,

Structure Sv-Sr	Systems Engineers, Software Architects, Business Architects.
	Concerns: Combination of services required to exhibit a capability.
	<b>Definition:</b> Shows the composition of services and how services are combined into a higher level service required to exhibit a capability or support an operational activity.
Services Connectivity Sv-Cn	Stakeholders: Solution Providers, Systems Engineers, Software Architects, Business Architects.
	Concerns: Interoperability among services
	<b>Definition:</b> Specifies service interfaces, e.g., provided and required service methods, signal receptions, and/or flow properties, to ensure compatibility and reusability of services.
Services Processes Sv-Pr	Stakeholders: Security Architects, Security Engineers.

**Concerns:** The specification of the Security Control families, security controls, and measures required to address a specific security baseline.

Definition: Provides a set of Security
Controls and any possible enhancements
as applicable to assets. The activity
diagram describes operational or resource
level processes that apply (operational
level) or implement (resource level)
security controls/enhancements to assets
located in enclaves and across enclaves.
This Security Process view can be
instantiated either as a variant of an
activity/flow diagram or as a hierarchical
work breakdown structure.

Services
States Sv-St

**Stakeholders:** Solution Providers, Systems Engineers, Software Architects, Business Architects.

**Concerns:** The behavior of a service in terms of states and events causing transitions between states.

**Definition:** Specifies the possible states a service may have, and the possible

	transitions between those states.
Services Sequences St-Sq	Stakeholders: Solution Providers, Systems Engineers, Software Architects, Business Architects.
	Concerns: The behavior of a service in terms of expected time-ordered examination of the interactions between service roles.
	<b>Definition:</b> Specifies how service roles interact with each other, service providers and consumers, and the sequence and dependencies of those interactions.
Services Constraints Sv-Ct	<b>Stakeholders:</b> Solution Providers, Systems Engineers, Software Architects, Business Architects.
	Concerns: Service policies that apply to implementations of services.
	<b>Definition:</b> Specifies traditional textual service policies that are constraints on the way that services are implemented within resources. The addition of SysML parametrics provide a computational

	means of defining service policies across the enterprise or within a specific service configuration.
Services Roadmap Sv-Rm	<b>Stakeholders:</b> Solution Providers, Systems Engineers, Software Architects, Business Architects.
	Concerns: Service changes over time.
	<b>Definition:</b> Provides an overview of how a service changes over time. It shows the combination of several services mapped against a timeline.
Services Traceability Sv-Tr	<b>Stakeholders:</b> Solution Providers, Systems Engineers, Software Architects, Business Architects.
	Concerns: Traceability between operational activities and services that support them.
	<b>Definition:</b> Depicts the mapping of services to operational activities and how services contribute to the achievement of a capability.

### **UAF Personnel Views**

The UAF 1.2 Personnel Viewpoints form a dedicated domain within the Unified Architecture Framework, concentrating on the human aspects of enterprise architecture. This domain was separated from others due to the inherent complexity of modeling human factors, allowing organizational considerations to be addressed in their own space. It defines human actors, their roles, interactions, and organizational dependencies. Over time, the domain has been expanded to support an integrated model that encompasses a wide range of human factors, such as competencies, training, workload, situational awareness, safety, and organizational culture.

These viewpoints give architects a structured way to analyze and document the human dimension of complex systems, clarifying how people align with organizational structures, their responsibilities and capabilities, and their interactions with both colleagues and technological systems in the broader enterprise architecture environment.

V 🗀 UA	F Personnel Views
> 🗀	Personnel Taxonomy Ps-Tx
> 🗀	Personnel Structure Ps-Sr
> 🗀	Personnel Connectivity Ps-Cn
> 🗀	Personnel Processes Ps-Pr
> 🗀	Personnel States Ps-St
> 🗀	Personnel Sequences Ps-Sq
> 🗀	Personnel Constraints Competence Ps-Ct
> 🗀	Personnel Constraints Drivers Ps-Ct
> 🗀	Personnel Constraints Performance Ps-Ct
> 🗀	Personnel Availability Ps-Rm-A
> 🗀	Personnel Evolution Ps-Rm-E
> 🗀	Personnel Forecast Ps-Rm-F
> 🗀	Personnel Traceability Ps-Tr

## **UAF Personnel Views**

Personnel Taxonomy Ps-Tx	Stakeholders: Project Managers, Project Portfolio Managers, Enterprise Architects.
	Concerns: Types of projects and project milestones.
	<b>Definition:</b> Shows the taxonomy of types of projects and project milestones.
Personnel Structure	Stakeholders: Project Managers.
Ps-Sr	Concerns: Relationships between types

	of projects and project milestones.
	<b>Definition:</b> Provides a template for an actual project(s) road map(s) to be implemented.
Personnel Connectivity Ps-Cn	Stakeholders: Systems Engineers, IT Architects, Solution Providers, Implementers.
	Concerns: Capture the interactions between resources.
	<b>Definition:</b> Summarizes interactions between resources of information, systems, personnel, natural resources, etc. and the functions that produce and consume them. Measurements can optionally be included.
Personnel Processes Ps-Pr	Stakeholders: Solution providers.
	Concerns: Interaction of organizational resources.
	<b>Definition:</b> Captures the possible interactions between organizational resources, including command and

	control relationships. Interactions typically illustrate the fundamental roles and management responsibilities.
Personnel States Ps-St	<b>Stakeholders:</b> Systems Engineers, Software Engineers.
	Concerns: Capture state-based behavior of an organizational resource.
	Definition: It is a graphical representation of states of an organizational resource and how that organizational resource responds to various events and actions.
Personnel Sequences Ps-Sq	<b>Stakeholders:</b> Software Engineers, Systems Engineers.
	Concerns: Interactions between organizational resources (roles).
	<b>Definition:</b> Provides a time-ordered examination of the interactions between organizational resources.
Personnel Constraints	<b>Stakeholders:</b> Systems engineers, Solution providers.

Competence Ps-Ct	Concerns: Allocation of competencies to actual posts.
	<b>Definition:</b> Specifies requirements for actual organizational resources – by linking competencies and actual posts.
Personnel Constraints Drivers Ps-Ct	<b>Stakeholders:</b> Systems engineers, Solution providers, Human resources.
	Concerns: Optimization of organizational resource behavior. [Class] Person [Class] Responsibility
	Definition: Captures the factors that affect, constrain, and characterize organizational resource behavior as the basis for performance predictions at the level of actual persons and actual organizations. It creates a bridge between static architectural definitions and behavior predictions through executable models.
Personnel Constraints Performance	<b>Stakeholders:</b> Human resources, solution providers.

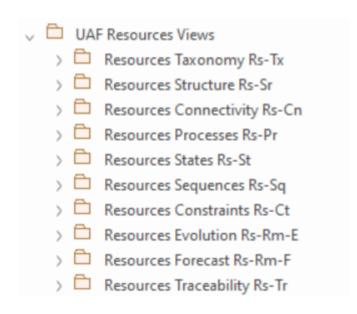
Ps-Ct	Concerns: How well an actual organizational resource matches the needs of the actual organization.  Definition: Provides a repository for human-related measures (i.e., quality objectives and performance criteria (HFI values)), targets and competencies.
Personnel Availability Ps-Rm-A	Stakeholders: Human Resources, Training, Logisticians, Solution Providers.  Concerns: the staffing and training of resources.
	<b>Definition:</b> defines the requirements and functions to ensure that actual persons with the right competencies, and in the right numbers, are available to fulfill actual posts.
Personnel Evolution Ps-Rm-E	<b>Stakeholders:</b> Human resources, Solution Providers.
	Concerns: Organizational structure changes over time.

	<b>Definition:</b> Provides an overview of how an organizational structure changes over time. It shows the structure of several organizational structures mapped against a timeline.
Personnel Forecast Ps-Rm-F	Stakeholders: Human resources, Logisticians, Solution Providers.  Concerns: Competencies and skills
	forecast.
	<b>Definition:</b> Defines the underlying current and expected supporting competencies and skills of organizational resources.
Personnel Traceability Ps-Tr	Stakeholders: Systems Engineers, Enterprise Architects, Solution Providers, Business Architects.
	Concerns: Traceability between operational activities and functions that implements them.
	<b>Definition:</b> Depicts the mapping of functions (performed by organizational resources) to operational activities and

thus identifies the transformation of an operational need into a purposeful function performed by an organizational resource or solution.

### **UAF Resources Views**

The UAF Resource Views include viewpoints that focus on the physical systems and broader resources an organization relies on to accomplish its work, as well as the artifacts associated with those resources. They represent an evolution of the traditional Systems domain used in frameworks such as DoDAF, NAF, MODAF, and DNDAF. These viewpoints examine how services are implemented across different phases, and how their deployment alters system configurations at an enterprise level. By providing a structured framework for modeling both the physical and logical components that enable organizational capabilities, the Resource Views allow architects to analyze dependencies, relationships, and interactions among resource artifacts. This holistic perspective supports a thorough understanding of the systems and resources that underpin an organization's mission and operational needs.



#### **UAF Resources Views**

Resources
Taxonomy
Rs-Tx

**Stakeholders**: Solution Providers, Systems Engineers, IT Architects, Implementers.

**Concerns:** Resource types.

**Definition:** Shows the taxonomy of types of resources.

### Resources Structure Rs-Sr

**Stakeholders:** Systems Engineers, Resource Owners, Implementers, Solution Providers.

**Concerns:** Reference the resource structure, connectors, and interfaces in a specific context.

**Definition:** Defines the physical resources, e.g., capability configuration(s)/system(s) and interactions necessary to implement a specific set of OperationalPerformer(s). Can be used to represent communications networks and pathways that link communications resources and provides

	details regarding their configuration.
Resources Connectivity Rs-Cn	<b>Stakeholders:</b> Systems Engineers, IT Architects, Solution Providers, Implementers.
	Concerns: Capture the interactions between resources.
	<b>Definition:</b> Summarizes interactions between resources of information, systems, personnel, natural resources, etc. and the functions that produce and consume them. Measurements can optionally be included.
Resources Processes Rs-Pr	Stakeholders: Solution Providers, Systems Engineers, IT Architects.
	Concerns: Captures activity based behavior and flows.
	<b>Definition:</b> Describes the functions that are normally conducted in the course of implementing operational activity(ies) in support of capability(ies). It describes the functions, their Inputs/Outputs, function actions, and flows between them.

Resources States Rs-St	<b>Stakeholders:</b> Systems Engineers, Software Engineers.
	Concerns: Capture state-based behavior of a resource.
	<b>Definition:</b> It is a graphical representation of states of a resource and how that resource responds to various events and actions.
Resources Sequences Rs-Sq	<b>Stakeholders:</b> Software Engineers, Systems Engineers.
	Concerns: Interactions between resources (roles).
	<b>Definition:</b> Provides a time-ordered examination of the interactions between resources.
Resources Constraints Rs-Ct	Stakeholders: Systems Engineers, IT Architects, Solution Providers, Implementers.
	Concerns: Define limitations, constraints and performance parameters for

	resources, their interactions, performed functions, and data.
	<b>Definition</b> : Specifies traditional textual rules/non-functional requirements that are constraints on resources, their interactions, performed functions, and data. The addition of SysML parametrics provide a computational means of defining resource constraints within a specific context.
Resources Evolution Rs-Rm-E	Stakeholders: Systems Engineers, IT Architects, Solution Providers, Implementers.
	Concerns: Resource structure changes over time.
	<b>Definition:</b> Provides an overview of how a resource structure changes over time. It shows the structure of several resources mapped against a timeline.
Resources Forecast Rs-Rm-F	Stakeholders: Solution Providers, Systems Engineers, IT Architects.
	Concerns: Technology forecast.

**Definition:** Defines the underlying current and expected supporting technologies. Expected supporting technologies are those that can be reasonably forecast given the current state of technology and expected improvements / trends.

### Resources Traceability Rs-Tr

**Stakeholders:** Systems Engineers, Enterprise Architects, Solution Providers, Business Architects.

**Concerns:** traceability between operational activities and functions that implements them.

**Definition:** depicts the mapping of functions to operational activities and thus identifies the transformation of an operational need into a purposeful function performed by a resource or solution.

# **UAF Security Views**

The UAF Security Views provide a structured approach for managing security concerns across enterprise architectures, offering viewpoints that define requirements, strategies, implementations, and solutions to safeguard the enterprise in all its dimensions. These views allow organizations to model and capture critical security elements, such as risk assessments that measure the impact of potential events on assets, constraints that specify protective measures and limitations, assets that require safeguarding, and enclaves that establish secure operational environments. The Security Viewpoint addresses both technical and non-technical dimensions of security, incorporating considerations such as human behavior, organizational culture, and established cybersecurity frameworks.



## **UAF Security Views**

Security	Stakeholders: Security Architects,

Motivation Sc-Mv	Security Engineers, Risk Analysts.
	Concerns: Security controls, security control families, and overlays.
	<b>Definition:</b> Identifies security controls to mitigate against the security risks.
Security Taxonomy Sc-Tx	Stakeholders: Security Architects, Security Engineers.
	Concerns: Security assets and security enclaves. [Class] Service [Class] OperationalArchitecture «stereotype» [Class] OperationalMitigation
	<b>Definition:</b> Defines the hierarchy of security assets and asset owners that are available to implement security, security constraints (policy, guidance, laws, and regulations) and details where they are located (security enclaves).
Security Structure Sc-Sr	Stakeholders: Security Architects, Security Engineers.
	Concerns: The structure of security information and where it is used at the

operational and resource level.

**Definition:** Captures the allocation of assets (operational and resource, information and data) across the security enclaves, shows applicable security controls necessary to protect organizations, systems and information during processing, while in storage (bdd), and during transmission (flows on an ibd). This view also captures Asset Aggregation and allocates the usage of the aggregated information at a location through the use of the information roles.

# Security Connectivity Sc-Cn

**Stakeholders:** Security Architects, Security Engineers.

**Concerns:** Addresses the security constraints and information assurance attributes that exist on exchanges across resources and across performers.

**Definition**: Lists security exchanges across security assets; the applicable security controls; and the security enclaves that house the producers and consumers of the exchanges.

Measurements can optionally be

	included.
Security Processes Sc-Pr	Stakeholders: Security Architects, Security Engineers.
	Concerns: The specification of the
	Security Control families, security
	controls, and measures required to
	address a specific security baseline.
	<b>Definition:</b> Provides a set of Security
	Controls and any possible enhancements as applicable to assets. The activity
	diagram describes operational or resource
	level processes that apply (operational
	level) or implement (resource level)
	security controls/enhancements to assets
	located in enclaves and across enclaves.
	This Security Process view can be instantiated either as a variant of an
	activity/flow diagram or as a hierarchical
	work breakdown structure.
Security	Stakeholders: Security Architects,
Constraints	Security Engineers.
Sc-Ct	
	Concerns: Security-related policy,
	guidance, laws, and regulations as

applicable to assets.

Definition: Specifies textual rules/non-functional requirements that are security constraints on resources, information and data (e.g., security-related in the form of rules (e.g., access control policy). A common way of representing access control policy is through the use of XACML (eXtensible Access Control Markup Language), it is expected that implementations of UAF allow users to link security constraints to external files represented in XACML.

# Security Traceability Sc-Tr

**Stakeholders:** Security Architects, Security Engineers, Risk Analysts.

**Concerns:** Traceability between risk and risk owner, risk mitigations, and affected asset roles.

**Definition:** Depicts the mapping of a risk to each of the following: risk owner, risk mitigations, and affected asset roles.

# **UAF Projects Views**

The UAF Project Views provide a structured perspective within the Unified Architecture Framework that emphasizes the organizational and temporal dimensions of delivering capabilities through programs, projects, portfolios, and initiatives. They illustrate how these efforts contribute to capability realization, the roles of participating organizations, and the interdependencies that connect them. By doing so, they offer architects and stakeholders valuable understanding of the coordination, governance, and execution processes that translate strategic objectives into operational outcomes. Serving as a vital link between overarching strategy and detailed implementation, the Project viewpoint helps organizations manage complex dependencies, allocate resources effectively, and account for timelines, thereby ensuring the successful development and deployment of capabilities in both enterprise and defense contexts.

```
UAF Projects Views

Projects Taxonomy Pj-Tx

Projects Structure Pj-Sr

Projects Connectivity Pj-Cn

Projects Processes Pj-Pr

Projects Roadmap Pj-Rm

Project Traceability Pj-Tr
```

## **UAF Projects Views**

<b>Stakeholders:</b> PMs, Project Portfolio Managers, Enterprise Architects.
Concerns: Types of projects and project milestones.
<b>Definition:</b> Shows the taxonomy of types of projects and project milestones.
Stakeholders: Project Managers.
Concerns: Relationships between types of projects and project milestones.
<b>Definition:</b> Provides a template for an actual project(s) road map(s) to be implemented.
Stakeholders: Project Managers.
Concerns: Relationships between projects and project milestones.
<b>Definition:</b> Shows how projects and project milestones are related in sequence.

Projects Processes Pj-Pr	Concerns: Captures project tasks (Project Activities) and flows between them.  Definition: Describes the Project Activities that are normally conducted in the course of projects to support capability(ies) and implement resources. It describes the Project Activities, their Inputs/Outputs, Project Activity Actions and flows between them.
Projects Roadmap Pj-Rm	Stakeholders: Project Managers, Capability Owners, Solution Providers, Enterprise Architects.  Concerns: The product portfolio management; a planning of capability delivery.  Definition: Provides a timeline perspective on programs or projects
Project Traceability	<b>Stakeholders:</b> Project Managers, Project Portfolio Managers, Enterprise

#### Pj-Tr

Architects.

**Concerns:** Traceability between capabilities and projects that deliver them.

**Definition:** Depicts the mapping of projects to capabilities and thus identifies the transformation of a capability(ies) into a purposeful implementation via projects.

## **UAF Standards Views**

The UAF 1.2 Standards Viewpoints form a central part of the Unified Architecture Framework, concentrating on the role of standardization within enterprise and system architectures. These viewpoints capture and model the use of technical standards, protocols, specifications, and compliance requirements, illustrating how they are applied and integrated across the architecture. By doing so, they allow stakeholders to identify dependencies, verify conformance across multiple domains, and maintain consistency in the implementation and governance of standards. This structured perspective supports the effective management of standards as essential drivers of architectural design, execution, and long-term evolution in complex systems and system-of-systems environments.



#### **UAF Standards Views**

Standards
Taxonomy
Sd-Tx

**Stakeholders:** Solution Providers, Systems Engineers, Software Engineers, Systems Architects, Business Architects.

	Concerns: Technical and non-technical standards, guidance, and policy applicable to the architecture.  Definition: Shows the taxonomy of types of technical, operational, and business standards, guidance, and policy applicable to the architecture.
Standards Structure Sd-Sr	Stakeholders: Solution Providers, Systems Engineers, Software Engineers, Systems Architects.  Concerns: The specification of the protocol stack used in the architecture.  Definition: Shows the composition of standards required to achieve the
Standards Roadmap Sd-Rm	Stakeholders: Solution Providers, Systems Engineers, Systems Architects, Software Engineers, Business Architects.  Concerns: Expected changes in technology-related standards and conventions, operational standards, or

business standards and conventions.

**Definition:** Defines the underlying current and expected standards. Expected standards are those that can be reasonably forecast given the current state of technology and expected improvements / trends.

### Standards Traceability Sd-Tr

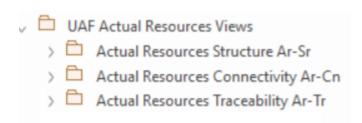
**Stakeholders:** Solution Providers, Systems Engineers, Software Engineers, Systems Architects, Business Architects.

**Concerns:** Standards that need to be taken in account to ensure the interoperability of the implementation of architectural elements.

**Definition:** Shows the applicability of standards to specific elements in the architecture.

### **UAF Actual Resources Views**

The UAF 1.2 Actual Resources Views constitute an optional modeling domain that emphasizes instances of artifact types rather than their abstract classifications. This domain offers a structured framework for documenting and analyzing the tangible, real-world realization of architectural elements. It defines specific solution classes that leverage effective collaboration between human actors and systems to achieve mission objectives and deliver required capabilities. By capturing the detailed properties, configurations, and interrelationships of deployed resources in operational environments, this domain enables architects to bridge the gap between conceptual design and actual implementation. The associated viewpoints support modeling of physical systems, deployed software instances, facilities, and other instantiated artifacts, providing a foundation for thorough analysis of real-world architectural deployments and their performance characteristics.



### **UAF Actual Resources Views**

Actual	Stakeholders: Solution Providers,

Resources Connectivity Ar-Cn	Systems Engineers, Business Architects.  Concerns: The communication of actual resource.  Definition: Illustrates the actual resource configurations and actual relationships between them.
Actual Resources Structure Ar-Sr	Stakeholders: Solution Providers, Systems Engineers, Business Architects.  Concerns: The analysis, e.g., evaluation of different alternatives, what-if, trade-offs, V&V on the actual resource configurations as it provides a means to capture different solution architectures. The detailed analysis (trade-off, what-if, etc.) is carried out using the Resource Constraints view.
	<b>Definition:</b> Illustrates the expected or achieved actual resource configurations required to meet an operational need.
Actual Resources Traceability	<b>Stakeholders</b> : Systems Engineers, Enterprise Architects, Solution Providers, Business Architects.

#### Ar-Tr

**Concerns**: Traceability between operational activities and functions that implements them.

**Definition:** Depicts the mapping of functions to operational activities and thus identifies the transformation of an operational need into a purposeful function performed by a resource or solution.

## **UAF Motivation Views**

The UAF 1.2 Motivation and Requirements Views offer a structured framework for capturing and managing the full spectrum of requirements within an architecture. These viewpoints focus on providing a unified reference for stakeholder needs, representing how various requirements relate to each other and to the architectural solutions that address them. They allow architects to document requirements with their key properties and establish critical relationships, including traceability links that connect high-level stakeholder needs to detailed technical requirements, verification links that show how requirements will be validated, satisfaction links tying requirements to architectural elements, and refinement links that break broad requirements into more specific ones. This approach ensures that every architectural element can be traced back to its originating stakeholder need and supports clear pathways for verification and validation throughout the architectural development process.



## **Motivation Requirements Rq-Mv**

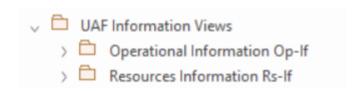
**Stakeholders:** Requirement Engineers, Solution Providers, Systems Engineers, Software Engineers, Systems Architects, Business Architects.

**Concerns:** Provides a central reference for a set of stakeholder needs expressed as requirements, their relationship (via traceability) to more detailed requirements and the solution described by the architecture that will meet those requirements.

**Definition:** Used to represent requirements, their properties, and relationships (trace, verify, satisfy, refine) between each other and to UAF architectural elements.

## **UAF Information Views**

The UAF 1.2 Information Views cover viewpoints that focus on the information and data dimension across operational, service, and resource architectures, including personnel systems. These viewpoints are designed to facilitate analysis of information and data structures within an architecture while intentionally avoiding implementation-specific details. By providing a conceptual perspective, the Information Views allow architects to examine how information is organized, flows, and interrelates within the system, emphasizing logical data relationships rather than technical aspects of storage, transmission, or processing. This level of abstraction enables architects to concentrate on core information requirements and the connections between data entities that guide architectural decisions, independent of specific technologies or platforms.



#### **UAF Information Views**

Operational Information Op-If

**Stakeholders:** Data Modelers, Software Engineers, Systems Engineers, Operators and Users, Service Managers and

	Providers
	Concerns: Address the information perspective on operational and service architectures.
	<b>Definition:</b> Allows analysis of an architecture's information and data definition aspect, without consideration of implementation specific issues.
Resources Information Rs-If	<b>Stakeholders:</b> Data Modelers, Software Engineers, Systems Engineers
	Concerns: Address the information perspective on resource architectures including personnel architectures.
	<b>Definition:</b> Allows analysis of an architecture's information and data definition aspect, without consideration of implementation specific issues.

### **UAF Parameters Views**

The UAF 1.2 Parameters Views encompass viewpoints that focus on the quantifiable and environmental aspects of architectural elements. These views address concerns related to defining operational environments where capabilities function, identifying measurable properties that support analytical activities through key performance indicators and other metrics, and recognizing potential risks and adverse conditions that could impede goal achievement. The viewpoints within Parameters Views collectively provide frameworks for modeling the contextual environments of systems and capabilities, establishing measurable criteria for performance assessment and analysis, and documenting risk factors along with their likelihood and potential negative impacts, thereby enabling architects to create comprehensive models that account for both the operational context and quantifiable characteristics essential for effective architectural analysis and decision-making.



#### **UAF Parameters Views**

Environment	Stakeholders: Capability owners,

Parameters En-Pm-E	Systems Engineers, Solution Providers.
	Concerns: Defines the environment for the capabilities.
	<b>Definition:</b> Shows the elements and relationships that are involved in defining the environments applicable to capability, operational concept, or set of systems.
Measurement s Parameters Me-Pm-M	Stakeholders: Capability owners, Systems Engineers, Solution Providers.
	Concerns: Identifies measurable properties that can be used to support analysis such as KPIs, MOs, TPIs etc.
	<b>Definition:</b> Shows the measurable properties of something in the physical world, expressed in amounts of a unit of measure that can be associated with any element in the architecture.
Risk Parameters Rk-Pm-R	Stakeholders: Capability Owners, Systems Engineers, Solution Providers, Program Managers.
	Concerns: Identifies potential adverse

conditions and situations that can inhibit achievement of goals.

**Definition:** Shows the relevant risks along with associated measures like likelihood of occurrences and potential negative consequences.