



Introduction to Architecture Description Frameworks

A one-day introduction to Architecture Description Frameworks, covering the theory and purpose of architecture description frameworks and a high-level overview of the relevant standard (ISO/IEC/IEEE 42010) plus some of the most common frameworks including, the Framework for Architecture Frameworks (FAF), Enterprise Architecture Frameworks (Zachman & TOGAF), Defence Frameworks (DoDAF, MODAF & NAF), the Unified Architecture Framework (UAF) and the MBSE Grid.

Duration: 1 day

What is a System and a System Architecture?

- What is a System?
- What is a System Architecture?
- Architecture vs Design
- Architecture Descriptions
- Architecture Description Languages
- Methods for defining concepts – Glossaries, Taxonomies & Ontologies

This introductory module establishes the underlying concepts related to Architecture Frameworks.

What is an Architecture Framework

- The Structure of everyday description
- An Ontology for Architecture Frameworks and Descriptions
- The purpose of an Architecture Framework
- Additional Enablers

This section defines an Ontology for Architecture Framework by reverse-engineering some familiarly descriptions of everyday things. It also established the purpose of Architecture Description Frameworks.

ISO/IEC/IEEE 42010 Standard for Architecture Descriptions

- Purpose
- Scope
- Conceptual Models & Requirements

This section introduces the ISO/IEC/IEE 42010 Standard for Architecture Descriptions.

The FAF: A Framework for Frameworks

- Purpose
- The Six Viewpoints

This section introduces the FAF

Enterprise Architecture Frameworks

- What is an Enterprise Architecture?
- Zachman Framework
- TOGAF





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This section introduces the concept of Enterprise Architecture Frameworks as well as two popular Frameworks, the Zachman Framework and TOGAF.

Defence Frameworks

- The three main Defence Frameworks
- Important Differences
- DoDAF
- MODAF
- NAF

This section introduces the concept of Defence Frameworks and gives a high-level overview of the main three.

The Unified Architecture Framework (UAF)

- Viewpoints
- Metamodel
- A Common Defence Framework

This section introduces the UAF.

The MBSE Grid

- Viewpoints
- Metamodel
- Alignment with ISO/IEC/IEEE 15288:2008

This section introduces the MBSE Grid.

Best Practices

- Choosing the right Architecture Framework
- Customising an Architecture Framework
- Choosing the right Process
- Choosing the right Tool

This sections provides some best practices for choosing and working with Architecture Frameworks.





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Target Audience

This course is aimed at anyone who wants to find out more about Architecture Description Frameworks, with a view to gaining an understanding of what they are, their benefits and an awareness of the most common frameworks. The course requires no prior knowledge of any specific notations, modelling languages nor tools. The course is suitable for Systems Engineers, System Architects, Business Analysts and related disciplines.

Benefits

The benefits of this course are as follows:

- Understand what a System Architecture Description is
- Understand what an Architecture Description Framework is and their benefits.
- An awareness of the relevant standard (ISO/IEC/IEEE 42010)
- An awareness of several different kinds of Architecture Description Frameworks
- Understand of the best practice in applying Architecture Description Frameworks

Prerequisites

Delegates without an awareness of the fundamentals of Systems Engineering and modelling are required to watch a number of short Systems Engineering primer videos (total length less than 1 hour) prior to attendance on the course.

Material

Delegates receive PDF copies of the course notes, summary sheets and a physical copy of the book *'Don't Panic! The Absolute Beginner's Guide to Architecture Frameworks'* co-authored by the course tutor and published by INCOSE UK.

More Information

For more information on this course, or any of our other offerings, please contact Scarecrow Consultants Limited using the details above.

