UML 2.5: Specification Simplification

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Timeline of UML 2

• 1999 – UML 2.0 RFI
• 2000 – UML 2.0 RFPs
• 2003 – UML 2.0 Adopted
• 2005 – UML 2.0 Finalized
• 2007 – UML 2.1.1/2.1.2
• 2008 – Future Development of UML RFI
• 2009 – UML 2.2
• 2009 – UML Spec Simplification RFP (UML 2.5)
• 2010 – UML 2.3
• 2011 – UML 2.4.1 (*metamodel cleanup*)
• 2012 – UML 2.5 Adopted (*planned*)
• 2013 – UML 2.5 Finalized (*planned*)
UML Specifications

MOF Core

- 2 compliance levels
  - EMOF
  - CMOF

MOF XMI Mapping

uses

based on

UML Infrastructure

uses

based on

UML Superstructure

- 3 compliance levels
  - L1
  - L2
  - L3

- 2 types of compliance
  - Abstract syntax
  - Concrete syntax

(nothing for semantics)

SysML

SoaML

UPDM

MARTE
UML Specifications: As of v2.3

- MOF Core (based on v2.0)
- MOF XMI Mapping (based on V2.1.1)
- UML Infrastructure (uses v2.3)
- UML Superstructure (based on v2.2)
- SysML (v1.2)
- SoaML (v1.0)
- UPDM (v2.0)
- MARTE (v1.1)

...
UML Specifications: As of v2.4.1

v2.4.1
MOF Core
based on
v2.4.1
MOF XMI Mapping
uses
v2.4.1
UML Infrastructure
based on
v2.4.1
UML Superstructure

v1.3
SysML
(in preparation)

uses

profiles of

...
UML 2.5 Spec Simplification: Requirements

Mandatory
- Normative XMI equivalent to merged UML L3
- Consumable specification document
- No compliance levels
- No merge increments
- No language changes or new features
- Normative XMI for standard profiles (done for UML 2.4)

Optional
- Non-normative levels
- Separate reusable spec for primitive types
UML 2.5 Spec Simplification: Participants

Submitters
• 88Solutions
• Adaptive
• Deere & Company
• Fujitsu
• International Business Machines
• Microsoft
• Model Driven Solutions
• No Magic
• Powerwave Technologies
• Sparx Systems
• Unisys

Supporters
• NASA Jet Propulsion Laboratory
• Simula Research Laboratories
Introduction
1. Scope
2. Conformance
3. Normative References
4. Terms and Definitions
5. Symbols
6. Additional Information

Structure
7. Common Structure
8. Values
9. Classification
10. Simple Classifiers
11. Structured Classifiers
12. Packages

Behavior
13. Common Behavior
14. State Machines
15. Activities
16. Actions
17. Interactions

Other
18. Use Cases
19. Deployments
20. Information Flows

Standard Models
21. PrimitiveTypes
22. StandardProfile

5 types of conformance
• Abstract syntax
• Concrete syntax
• Model interchange
• Diagram interchange
• Semantics

Designed to reduce forward references.
UML 2.5 Specification: Clause Structure

7 Common Structure
7.1 Summary
7.2 Root
7.3 Template
7.4 Names
7.5 Types
7.6 Constraints
7.7 Dependencies
7.8 Classifier Descriptions
7.9 Association Descriptions

Description subclauses are generated from the metamodel.
UML 2.5 Specification: Status and Plan

• **Initial submission:** November 2011 (document ad/11-11-94)

• **Current work:**
  – Final editing of clause text
  – Completion of examples
  – Completion of OCL (syntactically correct)
  – Completion of diagram interchange model

• **Revised submission:** May 2012

• **Adoption:** September 2012 (estimated)

• **Finalized:** May 2013 (estimated)