An OMG_® Structured Assurance Case Metamodel™ Publication



Structured Assurance Case Metamodel (SACM)

Version 2.0

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http://www.omg.org/spec/SACM/190235/emof.xml

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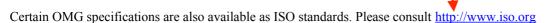
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Times/Times New Roman/Liberation Serif - 10 pt.: Standard body text

Helvetica/Arial - 10 pt. Bold: OMG Interface Definition Language (OMG IDL) and syntax elements.

Courier - 10 pt. Bold: Programming language elements.

Helvetica/Arial - 10 pt: Exceptions

NOTE: Terms that appear in italics are defined in the glossary. Italic text also represents the name of a document, specification, or other publication.

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The reader is encouraged to report any technical or editing issues/problems with this specification to http://issues.omg.org/issues/create-new-issue.

3 References

3.1 Normative References

The following normative documents contain provisions which, through reference in this text, constitute provisions of this specification. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply.

- ISO/IEC 15026-1:2013 Systems and software engineering Systems and software assurance Part 1: Concepts and vocabulary, 2013. http://www.iso.org/iso/catalogue_detail.htm?csnumber=62526>
- ISO/IEC 15026-2: 2011 Systems and software engineering Systems and software assurance Part 2: Assurance case, 2011. http://www.iso.org/iso/catalogue_detail.htm?csnumber=52926
- OMG UML 2.5 Infrastructure Specification formal/15-03-01. < http://www.omg.org/spec/UML/
- OMG Meta-Object Facility (MOF) version 2.5 formal/2015-06-05.
 http://www.omg.org/spec/MOF/>
- OMG MQF XML Metadata Interchange (XMI) Specification, version 2.51, formal/2015-06-07
 http://www.omg.org/spec/XMI/>

3.2 Non-normative References

The following non-normative documents contain provisions which, through reference in this text, provide informative context for material in this specification.

- Goal Structuring Notation (GSN) Community Standard, Nov 2011.
 http://www.goalstructuringnotation.info/documents/GSN Standard.pdf
- Open Platform for EvolutioNary Certification of Safety-critical Systems (OPENCOSS) WP4: Common Certification Language, 2012-2015.
 http://www.opencoss-project.eu/node/7
- Open Platform for EvolutioNary Certification of Safety-critical Systems (OPENCOSS) WP6: Evolutionary Evidential Chain, 2012-2015. http://www.opencoss-project.eu/node/7>.
- Evidence management for compliance of critical systems with safety standards: A survey on the state of practice, Information and Software Technology 60: 1-15, Elsevier (North-Holland) (2015).
 http://www.sciencedirect.com/science/article/pii/S0950584914002560>
- MG Structured Pattern Metamodel Standard (SPMS), beta2, ptc/14-09-31 < http://www.omg.org/spec/SPMS/>
- Open Group Dependability Assurance Framework (O-DA), Jul 2013.
 https://www2.opengroup.org/ogsys/catalog/C13F>
- OMG Dependability Assurance Framework for Safety-Sensitive Consumer Devices (DAF), beta1, May 2015.
 http://www.omg.org/spec/DAF/>
 - Infusion Pumps Total Product Life Cycle Guidance for Industry and FDA Staff, Dec 2014.

.https://www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/UCM209337.pdf

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Annex A: Mappings from existing industrial notations for assurance cases

(informative)

A.1 Goal Structuring Notation (GSN)

Details of the of the mapping between GSN elements and SACM, and the available relevant tool support, are maintained at the following URL:

http://www.goalstructuringnotation.info/gsn-metamodel

A.2 Claims, Arguments, Evidence (CAE)

Details of the mapping between CAE elements and SACM, and the available relevant tool support, are maintained at the following URL:

http://www.adelard.com/asce/choosing-asce/standardisation.html

Annex B: Examples of Assurance Cases in SACM 2.0 XMI

(informative)

B.1 Example Assurance Cases

Examples of SACM 2.0 Assurance Cases with HTML renderings, graphical depictions, and machine readable XMI are maintained at the following URL:

http://www.goalstructuringnotation.info/sacm-examples