

Annex B: Examples of Assurance Cases in SACM 2.0 XMI

(informative)

New page 53 and 54



~~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>~~



Annex B: Examples of Assurance Cases in SACM 2.0 XMI

(informative)

This annex contains a SACM Assurance Case with the resultant XMI.

B.1 SACM Example

The Example given is a typical example of a Claim supported by two subclaims each supported by separate evidence. This model example is using the Profile for the language as given in the standard.

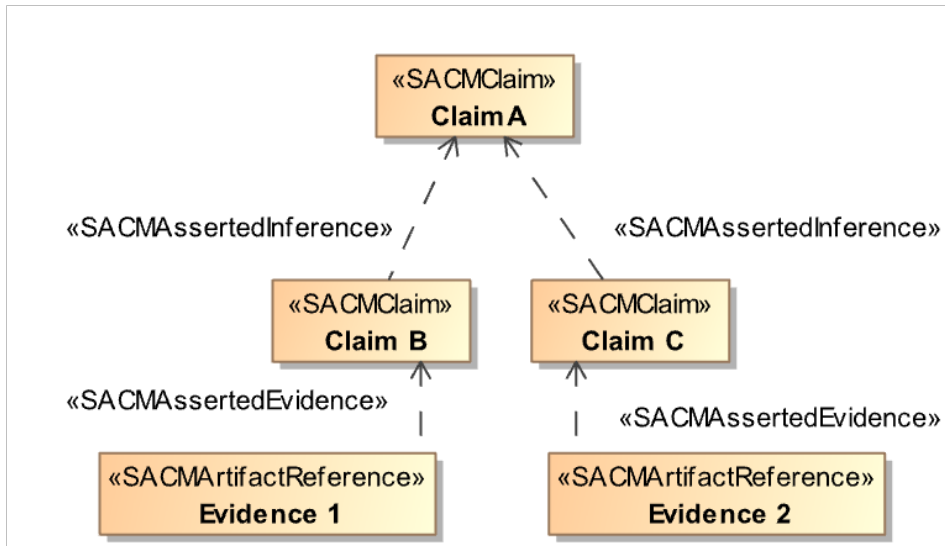


Figure B.1 – SACM Example 1 Assurance Case Structure Diagram

In addition, the ownership of the model elements in the Assurance Case model are shown below.

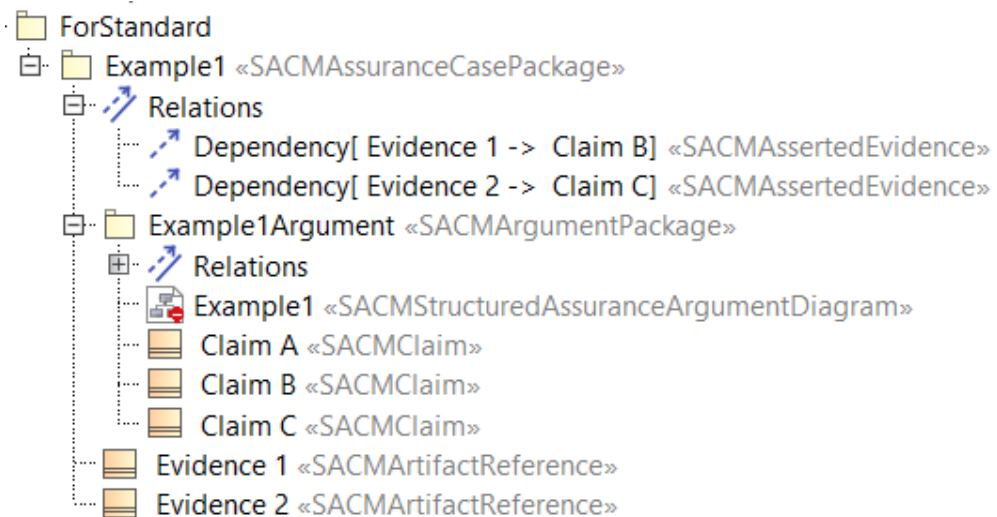


Figure B.2 – SACM Example Model Element Ownership Diagram

B.2 SACM Example Model XMI Listing

The XMI output for this example is given below and specifies the MOF XML (i.e. XMI) serialization of the model into a file. This XMI file is a way to send the model to various other tools that support the XMI standard and may also allow long term storage of the model in a vendor-independent format.

```
<?xml version="1.0" encoding="UTF-8"?>
<xmi:XMI xmlns:uml="http://www.omg.org/spec/UML/20131001"
  xmlns:xmi="http://www.omg.org/spec/XMI/20131001"
  xmlns:Profile="http://www.magicdraw.com/schemas/Profile.xmi">
  <uml:Model xmi:type="uml:Model"
    xmi:id="_2022x_1_27f60570_1742433912151_479101_1669" name="Model">
    <packagedElement xmi:type="uml:Package"
      xmi:id="_2024x_3_109d038b_1776881572636_117251_3950" name="ForStandard">
      <packagedElement xmi:type="uml:Package"
        xmi:id="_2024x_3_109d038b_1776881829831_783055_4162" name="Example1">
        <packagedElement xmi:type="uml:Package"
          xmi:id="_2024x_3_109d038b_1776881842552_656603_4171" name="Example1Argument">
          <packagedElement xmi:type="uml:Class"
            xmi:id="_2024x_3_109d038b_1776881866164_204035_4207" name="Claim A"/>
          <packagedElement xmi:type="uml:Class"
            xmi:id="_2024x_3_109d038b_1776881886189_485602_4237" name="Claim B"/>
          <packagedElement xmi:type="uml:Class"
            xmi:id="_2024x_3_109d038b_1776881907557_529114_4269" name="Claim C"/>
          <packagedElement xmi:type="uml:Dependency"
            xmi:id="_2024x_3_109d038b_1776881932359_300819_4317">
            <client xmi:idref="_2024x_3_109d038b_1776881886189_485602_4237"/>
            <supplier xmi:idref="_2024x_3_109d038b_1776881866164_204035_4207"/>
          </packagedElement>
          <packagedElement xmi:type="uml:Dependency"
            xmi:id="_2024x_3_109d038b_1776881950333_530939_4350">
            <client xmi:idref="_2024x_3_109d038b_1776881907557_529114_4269"/>
            <supplier xmi:idref="_2024x_3_109d038b_1776881866164_204035_4207"/>
          </packagedElement>
        </packagedElement>
        <packagedElement xmi:type="uml:Class"
          xmi:id="_2024x_3_109d038b_1776882014653_554511_4424" name="Evidence 1"/>
        <packagedElement xmi:type="uml:Class"
          xmi:id="_2024x_3_109d038b_1776882044621_607136_4464" name="Evidence 2"/>
        <packagedElement xmi:type="uml:Dependency"
          xmi:id="_2024x_3_109d038b_1776882094604_823018_4508">
          <client xmi:idref="_2024x_3_109d038b_1776882014653_554511_4424"/>
          <supplier xmi:idref="_2024x_3_109d038b_1776881886189_485602_4237"/>
        </packagedElement>
        <packagedElement xmi:type="uml:Dependency"
          xmi:id="_2024x_3_109d038b_1776882136646_385464_4568">
          <client xmi:idref="_2024x_3_109d038b_1776882044621_607136_4464"/>
          <supplier xmi:idref="_2024x_3_109d038b_1776881907557_529114_4269"/>
        </packagedElement>
      </packagedElement>
    </packagedElement>
  </uml:Model>
  <Profile:SACMAssuranceCasePackage xmi:id="_2024x_3_109d038b_1776881829831_783055_4162_application"
    base_Package="_2024x_3_109d038b_1776881829831_783055_4162"/>
  <Profile:SACMArgumentPackage xmi:id="_2024x_3_109d038b_1776881842552_656603_4171_application"
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  <Profile:SACMClaim xmi:id="_2024x_3_109d038b_1776881866164_204035_4207_application"
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  <Profile:SACMClaim xmi:id="_2024x_3_109d038b_1776881907557_529114_4269_application"
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  <Profile:SACMAssertedInference xmi:id="_2024x_3_109d038b_1776881932359_300819_4317_application"
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  <Profile:SACMAssertedInference xmi:id="_2024x_3_109d038b_1776881950333_530939_4350_application"
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  <Profile:SACMArtifactReference xmi:id="_2024x_3_109d038b_1776882014653_554511_4424_application"
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  <Profile:SACMArtifactReference xmi:id="_2024x_3_109d038b_1776882044621_607136_4464_application"
    base_Class="_2024x_3_109d038b_1776882044621_607136_4464"/>
  <Profile:SACMAssertedEvidence xmi:id="_2024x_3_109d038b_1776882094604_823018_4508_application"
    base_Dependency="_2024x_3_109d038b_1776882094604_823018_4508"/>
  <Profile:SACMAssertedEvidence xmi:id="_2024x_3_109d038b_1776882136646_385464_4568_application"
    base_Dependency="_2024x_3_109d038b_1776882136646_385464_4568"/>
</xmi:XMI>
```