

SV-10a : Systems Rules Model

This document defines the mapping between the DODAF SV-10a Systems Rules Model and the ISO 10303 AP233 Systems Engineering information model. This mapping is defined for the purpose of enabling data exchange between computer applications supporting the ISO AP233 standard and those supporting the US DoDAF CADM format, specifically CADM 1.02.

Table of contents

1 Introduction.....	2
2 SV-10a Concepts.....	2
3 SV-10a AP233 Mapping Issues.....	2
4 Mapping SV-10a CADM XML to AP233 XML.....	2
4.1 SV-10a Systems Rules Model Mapping.....	3
5 Example SV-10a CADM XML Data.....	3
5.1 Example RUL_MDL.....	3
6 Example SV-10a AP233 XML Data.....	3
6.1 Example Document and Document_assignment.....	3

1. Introduction

The SV-10a Systems Rules Model Product Description in the DoDAF Volume II: Product Descriptions document defines SV-10a as follows.

Systems rules are constraints on an architecture, on a system(s), or system hardware/software item(s), and/or on a system function(s). While other SV products (e.g., SV-1, SV-2, SV-4, SV-11) describe the static structure of the Systems View (i.e., what the systems can do), they do not describe, for the most part, what the systems must do, or what it cannot do.

DoDAF Volume II also describes the use of various types of diagrams for representing SV-10a content.

2. SV-10a Concepts

An Systems Rules Model may be used to represent the following concepts.

rule

statement that defines or constrains some aspect of the enterprise

3. SV-10a AP233 Mapping Issues

Warning:

At the time this document was written, AP233 was still undergoing development.

This section describes the issues in mapping between SV-10a Systems Rules Model and ISO AP233 as of the date of publication of this document. These issues may be addressed in future work by the DoDAF Working Group, the ISO AP233 development team or others.

1. See OV-6a issues.

4. Mapping SV-10a CADM XML to AP233 XML

This section defines the mapping from the CADM XML representation of SV-10a Systems Rules Model into an ISO AP233 XML representation of that same data. The mapping is defined at the detailed level of the XML elements and attributes themselves as it is aimed at implementors. See AP233 for more information on the AP233 XML Schema and the AP233 EXPRESS schema.

Please review the rules for AP233 XML data production as they are applicable to all

SV-10a : Systems Rules Model

implementations.

4.1. SV-10a Systems Rules Model Mapping

The mapping for the CADM SV-10a Systems Rules Model is the same as for the OV-6a Operational Rule Model except that the CADM RUL_MDL / RULE_MDL_USE_TY_CD = 02 for CADM Systems Rules Model.

5. Example SV-10a CADM XML Data

This section contains example SV-10a CADM XML data.

5.1. Example RUL_MDL

```
<RUL_MDL>
  <RULE_MDL_DOC_ID>10100201</RULE_MDL_DOC_ID>
  <RULE_MDL_USE_TY_CD>02</RULE_MDL_USE_TY_CD>
</RUL_MDL>
<DOC>
  <DOC_ID>10100201</DOC_ID>
  <DOC_NM>SAMPLE SYSTEMS RULES MODEL {SV-10a}</DOC_NM>
  <CSC_ID>20000001</CSC_ID>
  <TIME_FRAME_PRD_ID>20102341</TIME_FRAME_PRD_ID>
  <DOC_APP_CALDT>20031126</DOC_APP_CALDT>
  <DOC_ARCHPROD_TY_CD>27</DOC_ARCHPROD_TY_CD>
  <DOC_CRTN_CALDT>20031203</DOC_CRTN_CALDT>
  <DOC_CAT_CD>J</DOC_CAT_CD>
  <DOC_VER_ID>VERSION 1.0</DOC_VER_ID>
</DOC>
```

6. Example SV-10a AP233 XML Data

This section contains example SV-10a AP233 XML data.

6.1. Example Document and Document_assignment

```
<ap233:Document id="id-doc12771" />
<ap233:Identification_assignment id="id-doc12771-idassign">
  <Identifier>10100201</Identifier>
  <Items>
    <ap233:Document ref="id-doc12771" xsi:nil="true" />
  </Items>
</ap233:Identification_assignment>
<ap233:Classification_assignment
id="id-doc12771-idassign-classification_assignment">
```

```

<Items>
  <ap233:Identification_assignment ref="id-doc12771-idassign"
xsi:nil="true" />
</Items>
<Assigned_class>
  <ap233:External_class ref="id-Document_identification_code"
xsi:nil="true" />
</Assigned_class>
</ap233:Classification_assignment>

<ap233:Document_version id="id-docver12771">
  <Of_product>
    <ap233:Document ref="id-doc12771" xsi:nil="true" />
  </Of_product>
</ap233:Document_version>

<ap233:Document_definition id="id-docdef12771">
  <Defined_version>
    <ap233:Document_version ref="id-docver12771" xsi:nil="true" />
  </Defined_version>
  <Initial_context>
    <ap233:View_definition_context ref="id-sv10a" xsi:nil="true" />
  </Initial_context>
</ap233:Document_definition>

<ap233:Classification_assignment
id="id-docall12771-classification_assignment">
  <Items>
    <ap233:Document ref="id-doc12771" xsi:nil="true" />
    <ap233:Document_version ref="id-docver12771" xsi:nil="true" />
    <ap233:Document_definition ref="id-docdef12771" xsi:nil="true" />
  </Items>
  <Assigned_class>
    <ap233:External_class ref="id-SYSTEMS-RULES-MODEL" xsi:nil="true" />
  </Assigned_class>
</ap233:Classification_assignment>

```