

SV-1 : Systems Interface Description

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

This document defines the mapping between the DODAF SV-1 Systems Interface Description 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 1.01 Draft for Review dated 11 July 2003.

Table of contents

1 Introduction.....	3
2 SV-1 Concepts.....	3
3 SV-1 AP233 Mapping Issues.....	3
4 Mapping SV-1 CADM XML to AP233 XML.....	4
4.1 CADM Document Mapping.....	5
4.2 SV-1 Mapping.....	16
4.3 System Association Means and Communication Medium Mapping.....	17
4.4 System and System Relationship Mapping.....	20
4.5 Node and Node Relationship Mapping.....	26
4.6 Node Port Mapping.....	31
4.7 SV-1 Relationships Mapping.....	31
5 SV-1 Uses These AP233 Concepts.....	32
6 Example SV-1 CADM XML Data.....	33
6.1 Example SYSTM_IF_DESCR and SYSTM_IF_DESCR_EL.....	33
6.2 Example DOC.....	34

6.3 Example SYSTM.....	35
6.4 Example SYS_TYPE.....	35
6.5 Example SYS_ASSOC.....	36
6.6 Example SYS_ASSOC_MEANS.....	36
6.7 Example COMM_MEDIUM.....	36
6.8 Example NODE.....	36
6.9 Example NODE_ASSOC.....	37
6.10 Example NODE_PORT.....	37
6.11 Example NODE_ORG.....	37
7 Example SV-1 AP233 XML Data.....	37
7.1 Example System_element, System_element_version and System_element_definition.....	38
7.2 Example Interface_connection.....	39
7.3 Example Document_assignment.....	40
7.4 Example Organization_or_person_in_organization_assignment.....	40
7.5 Example Assigned_property.....	41

SV-1 : Systems Interface Description

1. Introduction

The SV-1 System Interface Description Product Description in the DoDAF Volume II: Product Descriptions document defined SV-1 as follows.

The Systems Interface Description depicts systems nodes and the systems resident at these nodes to support organizations/human roles represented by operational nodes of the Operational Node Connectivity Description (OV-2). SV-1 also identifies the interfaces between systems and systems nodes.

DoDAF Volume II also describes the use of various types of diagrams for representing SV-1 content.

2. SV-1 Concepts

A System Interface Description may be used to represent the following concepts.

- System nodes and systems, family of systems, system of systems
- Family of systems
- System of systems
- Nomenclature systems
- Subsystems
- Interfaces, including those designated as Key Interfaces, between systems nodes or systems

3. SV-1 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-1 System Interface Descriptions 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. DoDAF systems are mapped into AP233 system breakdowns. This should be considered in more detail as AP233 is completed. Breakdown and assembly are treated separately in ISO STEP and it may be that the concept of assembly is more appropriate for the DoDAF views in question.
2. The NODE / NODE_PHY_IND_CD CADM element is mapped into a classification of

whatever AP233 element supports the NODE itself which is based on the NODE / NODE_CAT_CD of which there are about 20. The relationship between these two codings should be investigated further.

3. The NODE CADM element could be mapped into many different AP233 concepts based on the kinds of possible nodes defined by NODE_CAT_CD (e.g. Organizations). However, AP233 does not support the definition of interfaces between anything that is not a kind of AP233 Product or a relationship between Products. As Organizations are not kinds of Products or relationships, if the Node would sensibly map as an AP233 Organization, it cannot have an Interface with a System specified using the normal AP233 Interface Connection approach. Multiple means of representing the CADM concept of Interface may be required in AP233.
4. Not all types of CADM System Associations (i.e. SYS_ASSOC / SYSA_TY_CD) are mapped in this documentation. The meaning of the unmapped types should be investigated further.
5. CADM System Interfaces map to AP233 Interface_connection. CADM Communication System maps to AP233 System_element_definition. In AP233, there is no way to relate these two concepts as is needed for the CADM System Association Means pointer to a Communications system and System Association.
6. CADM Document Temporal Scope Code DOC_TMPRL_SCP_CD is mapped to a simple classification. The meaning of this CADM concept should be investigated further to confirm this mapping. The values also look like a status or life cycle stage which might be mapped differently.
7. Several CADM attributes such as SYS_COMMENT_TX, SYS_DESCR_TX, SYS_DETAIL_TX, SYS_MANU_MOD_TX, DOC_RMKT_TX, SYS_PURP_TX, and SYS_SW_INTF_TX are text descriptions of various aspects of CADM concepts. It is possible to map these as string-valued properties that are classified as **COMMENT**, **PURPOSE**, etc. but this needs more study. For example, extended text might better be represented as a generated text document file defined as an AP233 Document.
8. CADM Nodes can be categorized in many ways. Several of these categories, such as SYSTEM INSTANCES, need more investigation in order to understand what they mean. They are not mapped into AP233 in the current documentation.
9. CADM supports the specification of an ICON for various elements (e.g. NODE / NODE_ICON_ID). This is not mapped into AP233 in the current documentation.
10. How to support the complex CADM Caveated Security Classes needs to be investigated further.

4. Mapping SV-1 CADM XML to AP233 XML

This section defines the mapping from the CADM XML representation of SV-1 System Interface Descriptions into an ISO AP233 XML representation of that same data. See AP233

SV-1 : Systems Interface Description

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 implementations.

4.1. CADM Document Mapping

This section describes the mapping for the CADM Document concept. All views including SV-1 are kinds of Documents.

See Example DOC for example CADM XML Document data.

The following table specifies the Document mapping.

CADM XML Element(s)	AP233 XML Element(s) or Attributes(s)
DOC	A Document with related version and definition as specified in AP233 approach to documents. The Document and related version and Digital_document_definition are classified to specify their type. Although Digital_document_definition is specified see DOC_TY_CD below as other kinds of document definitions are supported in AP233 and may be utilized.
DOC / DOC_TY_CD	A classification of the Document and related version and definition using the name, not number, value as follows depending on the value as follows. <ul style="list-style-type: none">• 01 = BOOK maps to a Physical_document_definition classified as DOCUMENT TYPE BOOK• 02 = CERTIFICATE maps to classified as DOCUMENT TYPE CERTIFICATE• 03 = DATABASE maps to classified as DOCUMENT TYPE DATABASE• 04 = DIRECTIVE maps to classified as DOCUMENT TYPE DIRECTIVE• 05 = FORM maps to classified as DOCUMENT TYPE FORM• 06 = GUIDELINE maps to classified as DOCUMENT TYPE GUIDELINE• 07 = IMAGE maps to classified as DOCUMENT TYPE IMAGE• 08 = INSTRUCTION maps to classified as DOCUMENT TYPE INSTRUCTION• 09 = LABEL maps to classified as

SV-1 : Systems Interface Description

	<p>DOCUMENT TYPE LABEL</p> <ul style="list-style-type: none"> • 10 = LETTER maps to a <i>Physical_document_definition</i> classified as DOCUMENT TYPE LETTER • 11 = MEMORANDUM maps to classified as DOCUMENT TYPE MEMORANDUM • 12 = PROPOSAL maps to classified as DOCUMENT TYPE PROPOSAL • 13 = REPORT maps to classified as DOCUMENT TYPE REPORT • 14 = CARD maps to classified as DOCUMENT TYPE CARD • 15 = E-MAIL maps to classified as DOCUMENT TYPE E-MAIL • 16 = MESSAGE maps to classified as DOCUMENT TYPE MESSAGE • 17 = PROCEDURE maps to classified as DOCUMENT TYPE PROCEDURE • 18 = TEMPLATE maps to classified as DOCUMENT TYPE TEMPLATE • 19 = STAFF JOURNAL/LOG maps to classified as DOCUMENT TYPE JOURNAL • 20 = PAPER FILE maps to a <i>Physical_document_definition</i> classified as DOCUMENT TYPE PAPER FILE • 21 = ELECTRONIC FILE maps to classified as DOCUMENT TYPE ELECTRONIC FILE • 98 = NOT SPECIFIED (THE APPROPRIATE VALUE IS NOT IN THE SET OF SPECIFIED VALUES) maps to classified as DOCUMENT TYPE NOT SPECIFIED • 99 = NOT KNOWN (IT IS NOT POSSIBLE TO DETERMINE WHICH VALUE OUT OF THE LIST OF VALUES IS MOST APPLICABLE) maps to classified as DOCUMENT TYPE NOT KNOWN
DOC / CSC_ID	Not currently mapped for any CSC_ID (noted in issues).
DOC / DOC_ABBRV_NM	The assigned identifier classified as a Short Name of the Document
DOC / DOC_APP_CALDT	The date assigned to the Approval with date assigned to the <i>Digital_document_definition</i> .
DOC / DOC_ARCHPROD_TY_CD	A classification of the Document and related

	<p>version and definition using the name, not number, value as follows depending on the value as follows.</p> <ul style="list-style-type: none">• 01 = ACTIVITY MODEL SPECIFICATION maps as ACTIVITY MODEL SPECIFICATION• 02 = COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE (C4ISR) DATA SPECIFICATION maps as C4ISR DATA SPECIFICATION• 03 = CAPABILITY MATRIX maps as CAPABILITY MATRIX• 04 = ORGANIZATIONAL NODE HIERARCHY (ALSO KNOWN AS COMMAND NODE HIERARCHY) maps as ORGANIZATIONAL NODE HIERARCHY• 05 = ORGANIZATIONAL RELATIONSHIP CHART (ALSO KNOWN AS COMMAND RELATIONSHIP CHART) maps as ORGANIZATIONAL RELATIONSHIP CHART• 06 = CONCEPT GRAPHIC maps as CONCEPT GRAPHIC• 07 = DATA DICTIONARY maps as DATA DICTIONARY• 08 = LOGICAL DATA MODEL maps as LOGICAL DATA MODEL• 09 = DATA MODEL SPECIFICATION maps as DATA MODEL SPECIFICATION• 10 = ELECTRONIC MAIL maps as ELECTRONIC MAIL• 11 = EVENT-TRACE DESCRIPTION maps as EVENT-TRACE DESCRIPTION• 12 = FRAMEWORK maps as FRAMEWORK• 13 = FUNCTIONAL SPECIFICATION maps as FUNCTIONAL SPECIFICATION• 14 = GRAPHIC maps as GRAPHIC• 15 = NODE TREE maps as NODE TREE• 16 = INFORMATION EXCHANGE MATRIX maps as INFORMATION EXCHANGE MATRIX• 17 = INTERFACE CONTROL DOCUMENT (ICD) maps as INTERFACE CONTROL DOCUMENT• 18 = JOINT PUBLICATION maps as JOINT PUBLICATION
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	<ul style="list-style-type: none">• 19 = NOT APPLICABLE maps as ARCHITECTURE PRODUCT TYPE NOT APPLICABLE• 20 = KEYWORD maps as KEYWORD• 21 = MANUAL maps as MANUAL• 22 = MAP CHART maps as MAP CHART• 23 = MAP OVERLAY maps as MAP OVERLAY• 24 = NODE CONNECTIVITY DESCRIPTION maps as NODE CONNECTIVITY DESCRIPTION• 25 = SYSTEM PERFORMANCE PARAMETER MATRIX maps as SYSTEM PERFORMANCE PARAMETER MATRIX• 26 = PHYSICAL MODEL SPECIFICATION maps as PHYSICAL MODEL SPECIFICATION• 27 = RULE MODEL maps as RULE MODEL• 28 = STATE TRANSITION DESCRIPTION maps as STATE TRANSITION DESCRIPTION• 29 = SYSTEM MIGRATION EVOLUTION maps as SYSTEM MIGRATION EVOLUTION• 30 = SYSTEM OVERLAY maps as SYSTEM OVERLAY• 31 = TECHNICAL CRITERIA DOCUMENT maps as TECHNICAL CRITERIA• 32 = TECHNOLOGY FORECAST MATRIX maps as TECHNOLOGY FORECAST MATRIX• 33 = VOICE MAIL maps as VOICE MAIL• 34 = TECHNOLOGY STANDARD FORECAST (ALSO KNOWN AS STANDARD TECHNOLOGY FORECAST) maps as TECHNOLOGY STANDARD FORECAST• 35 = SYSTEM COMMUNICATION DESCRIPTION maps as SYSTEM COMMUNICATION DESCRIPTION• 36 = SYSTEM EVOLUTION DESCRIPTION maps as SYSTEM EVOLUTION DESCRIPTION• 37 = SYSTEM FUNCTIONALITY DESCRIPTION maps as SYSTEM FUNCTIONALITY DESCRIPTION• 38 = SYSTEM FUNCTION TRACEABILITY MATRIX maps as SYSTEM FUNCTION TRACEABILITY MATRIX• 39 = SYSTEM INTERFACE DESCRIPTION
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	<p>maps as SYSTEM INTERFACE DESCRIPTION</p> <ul style="list-style-type: none">• 40 = SYSTEM-SYSTEM-MATRIX maps as SYSTEM-SYSTEM-MATRIX• 41 = SYSTEM TECHNOLOGY FORECAST maps as SYSTEM TECHNOLOGY FORECAST• 42 = TECHNICAL STANDARD PROFILE (ALSO KNOWN AS TECHNICAL ARCHITECTURE PROFILE) maps as TECHNICAL STANDARD PROFILE• 43 = MISSION ESSENTIAL TASK LIST maps as MISSION ESSENTIAL TASK LIST• 44 = ADDRESS-BOOK maps as ADDRESS-BOOK• 45 = SOFTWARE-ITEM-INTERFACE-MATRIX maps as SOFTWARE-ITEM-INTERFACE-MATRIX• 46 = COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, AND INTELLIGENCE SUPPORT PLAN (C4ISP) DOCUMENT maps as C4ISP DOCUMENT• 47 = ACQUISITION STRATEGY maps as ACQUISITION STRATEGY• 48 = CAPABILITIES ROADMAP maps as CAPABILITIES ROADMAP• 49 = INVESTMENT STRATEGY maps as INVESTMENT STRATEGY• 50 = DATA MANAGEMENT STRATEGY maps as DATA MANAGEMENT STRATEGY• 51 = CAPABILITY DEVELOPMENT DOCUMENT (CDD) maps as CAPABILITY DEVELOPMENT DOCUMENT• 52 = CAPABILITY PRODUCTION DOCUMENT (CPD) maps as CAPABILITY PRODUCTION DOCUMENT• 53 = BUSINESS REFERENCE MODEL (BRM) maps as BUSINESS REFERENCE MODEL• 54 = PERFORMANCE REFERENCE MODEL (PRM) maps as PERFORMANCE REFERENCE MODEL• 55 = DATA REFERENCE MODEL (DRM) maps as DATA REFERENCE MODEL• 56 = APPLICATION-CAPABILITY REFERENCE MODEL (ARM) maps as APPLICATION-CAPABILITY REFERENCE MODEL
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SV-1 : Systems Interface Description

	<ul style="list-style-type: none"> • 57 = TECHNICAL REFERENCE MODEL (TRM) maps as TECHNICAL REFERENCE MODEL • 58 = ARCHITECTURE CHANGE PROPOSAL maps as ARCHITECTURE CHANGE PROPOSAL • 59 = INITIAL CAPABILITIES DOCUMENT (ICD) maps as INITIAL CAPABILITIES DOCUMENT • 60 = C4ISP: COMMAND, CONTROL, COMMUNICATIONS, AND COMPUTERS (C4) INTEGRATED SUPPORT PLAN maps as C4ISP • 97 = PICKLIST maps as PICKLIST • 98 = NOT SPECIFIED maps as ARCHITECTURE PRODUCT TYPE NOT SPECIFIED • 99 = NOT KNOWN maps as ARCHITECTURE PRODUCT TYPE NOT KNOWN
<p>DOC / DOC_CAT_CD</p>	<p>A classification of the Document and related version and definition using the name, not number, value as follows depending on the value as follows.</p> <ul style="list-style-type: none"> • A = ADMINISTRATIVE DOCUMENT maps as CATEGORY ADMINISTRATIVE DOCUMENT • B = GUIDANCE DOCUMENT maps as CATEGORY GUIDANCE DOCUMENT • C = HEALTH DOCUMENT maps as CATEGORY HEALTH DOCUMENT • D = HISTORICAL DOCUMENT maps as CATEGORY HISTORICAL DOCUMENT • E = IDENTIFICATION DOCUMENT maps as CATEGORY IDENTIFICATION DOCUMENT • F = LEGAL DOCUMENT maps as CATEGORY LEGAL DOCUMENT • G = LOG DOCUMENT maps as CATEGORY LOG DOCUMENT • H = ORDER DOCUMENT maps as CATEGORY ORDER DOCUMENT • I = PERSONNEL DOCUMENT maps as CATEGORY PERSONNEL DOCUMENT • J = TECHNICAL DOCUMENT maps as CATEGORY TECHNICAL DOCUMENT • K = TEST DOCUMENT maps as CATEGORY TEST DOCUMENT

SV-1 : Systems Interface Description

	<ul style="list-style-type: none"> L = AUTHORIZATION DOCUMENT maps as CATEGORY AUTHORIZATION DOCUMENT
DOC / DOC_CRTN_CALDT and DOC_PUB_DT	An AP233 Date related to the Digital_document_definition classified as a DATE_CREATION or a DATE_PUBLICATION respectively.
DOC / DOC_DESC_TX	The Description child element of the Document.
DOC / DOC_ID	The identifier for the Document assigned by the owning organization.
DOC / DOC_NM	The assigned identifier classified as a Name of the Document
DOC / DOC_NOTATION_TX	An Assigned_document_property (see AP233 Properties) assigned to the Digital_document_definition. The Assigned_document_property with related Document_property_representation classified as a Document Notation with related Descriptive_document_property with child element String_value containing the text describing the notation.
DOC / DOC_ORIGINATOR_NM	The assigned identifier classified as a ORIGINATOR Name of an Organization assigned to the Document and related version and definition.
DOC / DOC_PROMULG_CD	<p>A classification of the Document and related version and definition using the name, not number, value as follows depending on the value as follows.</p> <ul style="list-style-type: none"> 002 = PUBLIC LAW maps as PROMULGATION PUBLIC LAW 003 = EXECUTIVE ORDER maps as PROMULGATION EXECUTIVE ORDER 004 = PRESIDENTIAL DIRECTIVE maps as PROMULGATION PRESIDENTIAL DIRECTIVE 005 = DOD DIRECTIVE maps as PROMULGATION DOD DIRECTIVE 006 = DOD INSTRUCTION maps as PROMULGATION DOD INSTRUCTION 007 = DOD PUBLICATION maps as PROMULGATION DOD PUBLICATION

SV-1 : Systems Interface Description

008 = DOD PLAN maps as **PROMULGATION DOD PLAN** 009 = DOD FORM maps as **PROMULGATION DOD FORM** 010 = CHAIRMAN OF THE JOINT CHIEFS OF STAFF (CJCS) GUIDE maps as **PROMULGATION CJCS GUIDE** 011 = CHAIRMAN OF THE JOINT CHIEFS OF STAFF INSTRUCTION (CJCSI) maps as **PROMULGATION CJCS INSTRUCTION** 012 = CHAIRMAN OF THE JOINT CHIEFS OF STAFF MANUAL (CJCSM) maps as **PROMULGATION CJCS MANUAL** 013 = CHAIRMAN OF THE JOINT CHIEFS OF STAFF (CJCS) NOTICE maps as **PROMULGATION CJCS NOTICE** 014 = JOINT PUBLICATION maps as **PROMULGATION JOINT PUBLICATION** 015 = AIR-LAND-SEA APPLICATION CENTER (ALSA) PUBLICATION maps as **PROMULGATION ALSA PUBLICATION** 016 = JOINT MORTUARY AFFAIRS POLICY maps as **PROMULGATION JOINT MORTUARY AFFAIRS POLICY** 017 = DEPARTMENT OF THE ARMY PAMPHLET maps as **PROMULGATION DEPARTMENT OF THE ARMY PAMPHLET** 018 = DEPARTMENT OF THE ARMY MEMORANDUM maps as **PROMULGATION DEPARTMENT OF THE ARMY MEMORANDUM** 019 = ARMY REGULATION maps as **PROMULGATION ARMY REGULATION** 020 = ARMY FIELD MANUAL maps as **PROMULGATION ARMY FIELD MANUAL** 021 = ARMY TRAINING CIRCULAR maps as **PROMULGATION ARMY TRAINING CIRCULAR** 022 = DEPARTMENT OF THE ARMY FORM maps as **PROMULGATION DEPARTMENT OF THE ARMY FORM** 023 = ALLIED PUBLICATION (NOT SUBJECT TO STANDARDIZATION AGREEMENT) maps as **PROMULGATION ALLIED PUBLICATION** 024 = STANDARDIZATION AGREEMENT (NO RATIFYING ALLIED PUBLICATION) maps as **PROMULGATION STANDARDIZATION AGREEMENT** 025 = ALLIED PUBLICATION RATIFIED BY STANDARDIZATION AGREEMENT maps as **PROMULGATION ALLIED**

	<p>PUBLICATION RATIFIED BY STANDARDIZATION AGREEMENT 026 = ALLIED COMMUNICATIONS PUBLICATION (ACP) maps as PROMULGATION ALLIED COMMUNICATIONS PUBLICATION 027 = MILITARY STANDARD maps as PROMULGATION MILITARY STANDARD 028 = AIR FORCE CATALOG maps as PROMULGATION AIR FORCE CATALOG 029 = AIR FORCE DIRECTORY maps as PROMULGATION IR FORCE DIRECTORY 030 = AIR FORCE HANDBOOK maps as PROMULGATION AIR FORCE HANDBOOK 031 = AIR FORCE INSTRUCTION maps as PROMULGATION AIR FORCE INSTRUCTION 032 = AIR FORCE JOINT HANDBOOK maps as PROMULGATION AIR FORCE JOINT HANDBOOK 033 = AIR FORCE JOINT INSTRUCTION maps as PROMULGATION IR FORCE JOINT INSTRUCTION 034 = AIR FORCE JOINT MANUAL maps as PROMULGATION AIR FORCE JOINT MANUAL 035 = AIR FORCE JOINT PAMPHLET maps as PROMULGATION AIR FORCE JOINT PAMPHLET 036 = AIR FORCE MANUAL maps as PROMULGATION AIR FORCE MANUAL 037 = AIR FORCE OCCUPATIONAL SAFETY AND HEALTH STANDARD maps as PROMULGATION AIR FORCE OCCUPATIONAL SAFETY AND HEALTH STANDARD 038 = AIR FORCE PAMPHLET maps as PROMULGATION AIR FORCE PAMPHLET 039 = AIR FORCE POLICY DIRECTIVE maps as PROMULGATION AIR FORCE POLICY DIRECTIVE 040 = AIR FORCE DOCTRINE DOCUMENT maps as PROMULGATION AIR FORCE DOCTRINE DOCUMENT 041 = AIR FORCE MISSION DIRECTIVE maps as PROMULGATION AIR FORCE MISSION DIRECTIVE 042 = FLEET EXERCISE PUBLICATION maps as PROMULGATION FLEET EXERCISE PUBLICATION 043 = AIR FORCE FORM maps as PROMULGATION AIR FORCE FORM 044 = ARCHITECTURE DOCUMENT maps as</p>
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	<p>PROMULGATION ARCHITECTURE DOCUMENT 046 = SERVICE TASKS maps as PROMULGATION SERVICE TASKS 047 = NAVAL DOCTRINE PUBLICATION (NDP) maps as PROMULGATION NAVAL DOCTRINE PUBLICATION 048 = NAVY TACTICAL REFERENCE PUBLICATION (NTRP) maps as PROMULGATION NAVY TACTICAL REFERENCE PUBLICATION 049 = NAVY TACTICS, TECHNIQUES, AND PROCEDURES (NTP) maps as PROMULGATION NAVY TACTICS, TECHNIQUES, AND PROCEDURES 050 = NAVAL WARFARE PUBLICATION (NWP) maps as PROMULGATION NAVAL WARFARE PUBLICATION 051 = OPERATIONAL TACTICS GUIDE (OTG) maps as PROMULGATION OPERATIONAL TACTICS GUIDE 052 = NAVY TECHNICAL MANUAL maps as PROMULGATION NAVY TECHNICAL MANUAL 053 = ARMY HEADQUARTERS (STAFF/COMMAND) PUBLICATION maps as PROMULGATION ARMY HEADQUARTERS PUBLICATION 054 = AIR FORCE HEADQUARTERS (STAFF/COMMAND) PUBLICATION maps as PROMULGATION 055 = CHIEF OF NAVAL OPERATIONS (OPNAV) PUBLICATION maps as PROMULGATION OPNAV PUBLICATION 056 = SECRETARY OF THE NAVY (SECNAV) PUBLICATION maps as PROMULGATION SECNAV PUBLICATION 057 = BUREAU PUBLICATION maps as PROMULGATION BUREAU PUBLICATION 058 = NAVY FORM maps as PROMULGATION NAVY FORM 059 = COAST GUARD COMMANDANT INSTRUCTION maps as PROMULGATION COAST GUARD COMMANDANT INSTRUCTION 060 = MARINE CORPS ORDER maps as PROMULGATION MARINE CORPS ORDER 061 = FLEET MARINE FORCE MANUAL (FMFM) maps as PROMULGATION FLEET MARINE FORCE MANUAL 062 = MARINE CORPS WARFIGHTING PUBLICATION (MCWP) maps as PROMULGATION MARINE CORPS WARFIGHTING PUBLICATION</p>
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SV-1 : Systems Interface Description

	<p>063 = MARINE CORPS REFERENCE PUBLICATION (MCRP) maps as PROMULGATION MARINE CORPS REFERENCE PUBLICATION 064 = MARINE CORPS DOCTRINAL PUBLICATION (MCDP) maps as PROMULGATION MARINE CORPS DOCTRINAL PUBLICATION 065 = DEFENSE LOGISTICS AGENCY (DLA) MANUAL maps as PROMULGATION DLA MANUAL 066 = DEFENSE LOGISTICS AGENCY (DLA) DIRECTIVE maps as PROMULGATION DLA DIRECTIVE 067 = DEFENSE LOGISTICS AGENCY (DLA) HANDBOOK maps as PROMULGATION DLA HANDBOOK 068 = DEFENSE LOGISTICS AGENCY (DLA) INSTRUCTION maps as PROMULGATION DLA INSTRUCTION 069 = DEFENSE LOGISTICS AGENCY (DLA) REGULATION maps as PROMULGATION DLA REGULATION 070 = DEFENSE LOGISTICS AGENCY (DLA) FORM maps as PROMULGATION DLA FORM 997 = OTHER PUBLICATION maps as PROMULGATION OTHER PUBLICATION 998 = NOT SPECIFIED maps as PROMULGATION NOT SPECIFIED 999 = NOT KNOWN PROMULGATION NOT KNOWN</p>
DOC / DOC_RMK_TX	See SV-1 Issues.
DOC / DCMNT_RNG_CD	<p>A classification of the Document and related version and definition using the name, not number, value as follows depending on the value as follows.</p> <ul style="list-style-type: none"> • A = DOCUMENT INCLUDES DISTRIBUTION LIST maps as DOCUMENT DISTRIBUTION LIST INCLUDED • B = DOCUMENT DOES NOT INCLUDE DISTRIBUTION LIST maps as DOCUMENT DISTRIBUTION LIST NOT INCLUDED
DOC / DOC_TMPRL_SCP_CD	<p>A classification of the Document and related version and definition using the name, not number, value as follows depending on the value as follows. See SV-1 Issues</p> <ul style="list-style-type: none"> • 01 = AS IS maps as TEMPORAL SCOPE AS IS

	<ul style="list-style-type: none"> • 02 = TO BE maps as TEMPORAL SCOPE TO BE • 03 = CURRENT BASELINE maps as TEMPORAL SCOPE CURRENT BASELINE • 04 = PLANNED BASELINE maps as TEMPORAL SCOPE PLANNED BASELINE • 08 = NOT SPECIFIED maps as TEMPORAL SCOPE NOT SPECIFIED • 09 = NOT KNOWN maps as TEMPORAL SCOPE NOT KNOWN • 5 = NOT APPLICABLE maps as TEMPORAL SCOPE NOT APPLICABLE
DOC / DOC_URL_TX	The assigned identifier classified as a URL of the File_location_identification also classified as a URL related to the Digital_document_definition.
DOC / DOC_VER_ID	The identifier for the Document_version assigned by the owning organization.
DOC / SC_CD	The assignment of a Security_classification to the Document and its related version and definition.
DOC / TIME_FRAME_PRD_ID	Not yet mapped.

Table 1: Within the DOC_TBL CADM XML Element

4.2. SV-1 Mapping

This section describes the mapping for the CADM SV-1 itself.

See Example SYS_IF_DESCR for example CADM XML SV-1 System Interface Description data.

The following table specifies the Systems Interface Description mapping.

CADM XML Element(s)	AP233 XML Element(s) or Attributes(s)
SYS_IF_DESCR / DOC_ID	A Document with related version and definition, as specified in CADM Documents, as in AP233 approach to documents. The Document, as specified and related version and definition are classified as SYSTEM-INTERFACE-DESCRIPTION.

Table 1: Within the SYS_IF_DESCR_TBL CADM XML Element

SV-1 : Systems Interface Description

See Example SYS_IF_DESCR_EL for example CADM XML SV-1 System Interface Description Element data.

The following table specifies the Systems Interface Description Element mapping.

CADM XML Element(s)	AP233 XML Element(s) or Attributes(s)
SYS_IF_DESCR_EL /	
SYS_IF_DESCR_EL / DOC_ID	The Document_assignment child element Assigned_document linking the AP233 representation of the Systems Interface Description Element with the Document_definition representing the Systems Interface Description itself which is referenced through the Is_assigned_to child element.
SYS_IF_DESCR_EL / ORD_SYS_ID	The identifier assigned to the AP233 element representing the System Association Ordinate System that is the element.
SYS_IF_DESCR_EL / SUB_SYS_ID	The identifier assigned to the AP233 element representing the System Association Subordinate System that is the element.
SYS_IF_DESCR_EL / SYSA_ID	The identifier assigned to the AP233 element representing the System Association that is the element.
SYS_IF_DESCR_EL / SYSAME_ID	Not mapped.
SYS_IF_DESCR_EL / SYS_IFDE_ID	An identifier assigned to the AP233 element representing the Systems Interface Description Element classified as SYSTEMS INTERFACE DESCRIPTION ELEMENT IDENTIFIER .

Table 2: Within the SYS_IF_DESCR_EL_TBL CADM XML Element

4.3. System Association Means and Communication Medium Mapping

This section describes the mapping for the CADM System Association Means and Communication Medium concepts.

See Example SYS_ASSOC_MEANS for example CADM XML System Association Means data.

The following table specifies the System Association Means mapping.

CADM XML Element(s)	AP233 Representation
SYS_ASSOC_MEANS	Additional information related to the <code>Interface_connection</code> representing the CADM System Association as specified below.
SYS_ASSOC_MEANS / AGR_ID	A <code>Document_assignment</code> with child element <code>Assigned_document</code> referring to the <code>Document_defintion</code> representing the CADM Agreement and <code>Is_assigned_to</code> child element. referring to the AP233 representation of the CADM System Association. The assignment is classified as a SYSTEM ASSOCIATION MEANS AGREEMENT .
SYS_ASSOC_MEANS / COMM_SYS_ID	Not currently mapped, this appears to be a gap in AP233. See SV-1 Issues.
SYS_ASSOC_MEANS / ORD_SYS_ID	Not used in the mapping.
SYS_ASSOC_MEANS / PRI_COMM_MED_ID	The identifier of the CADM Communication Medium assigned to the CADM System Association.
SYS_ASSOC_MEANS / SUB_SYS_ID	Not used in the mapping.
SYS_ASSOC_MEANS / SYSA_ID	The identifier of the CADM System Association represented in AP233 to which additional information is related.
SYS_ASSOC_MEANS / SYSAME_ID	Not used in the mapping except as the link from the CADM System Interface Description Element.
SYS_ASSOC_MEANS / SYSAME_TY_CD	Not currently mapped, this appears to be a gap in AP233 related to the gap above in <code>COMM_SYS_ID</code> . See SV-1 Issues.

Table 1: Within the SYS_ASSOC_MEANS_TBL CADM XML Element
 See Example COMM_MEDIUM for example CADM XML Communication Medium data.
 The following table specifies the Communication Medium mapping.

CADM XML Element(s)	AP233 Representation
COMM_MEDIUM /	
COMM_MEDIUM / COMM_MED_ABBR_NM	An identifier assigned to the AP233 element representing the System Association classified as COMMUNICATION MEDIUM

SV-1 : Systems Interface Description

	ABBREVIATED NAME.
COMM_MEDIUM / COMM_MED_CAT_CD	<p>The classification of the AP233 element representing the System Association depending on the following values.</p> <ul style="list-style-type: none"> • 01 = LL--LAND LINE (NOT OTHERWISE SPECIFIED) maps as classified with COMMUNICATION MEDIUM LAND LINE • 02 = PM--PHYSICAL MEDIUM (E.G., DISK) maps as classified with COMMUNICATION MEDIUM PHYSICAL MEDIUM • 03 = RA-- RADIO maps as classified with COMMUNICATION MEDIUM RADIO • 04 = SA--SATELLITE maps as classified with COMMUNICATION MEDIUM SATELLITE • 05 = DB--SHARED DATABASE maps as classified with COMMUNICATION MEDIUM SHARED DATABASE • 06 = TF--TERRESTRIAL (FIBER) maps as classified with COMMUNICATION MEDIUM TERRESTRIAL FIBER • 07 = TW--TERRESTRIAL (WIRE, NOT OTHERWISE SPECIFIED) maps as classified with COMMUNICATION MEDIUM TERRESTRIAL WIRE • 08 = MA--MANUAL maps as classified with COMMUNICATION MEDIUM MANUAL • 09 = OT--OTHER maps as classified with COMMUNICATION MEDIUM OTHER • 10 = WIRE TWISTED PAIR maps as classified with COMMUNICATION MEDIUM WIRE TWISTED PAIR • 11 = WIRE UNTWISTED PAIR maps as classified with COMMUNICATION MEDIUM WIRE UNTWISTED PAIR • 12 = WAVE GUIDE maps as classified with COMMUNICATION MEDIUM WAVE GUIDE • 13 = COAXIAL CABLE maps as classified with COMMUNICATION MEDIUM COAXIAL CABLE • 98 = NOT SPECIFIED maps as classified with COMMUNICATION MEDIUM NOT SPECIFIED • 99 = NOT KNOWN maps as classified with COMMUNICATION MEDIUM NOT KNOWN
COMM_MEDIUM / COMM_MED_ID	Not used in the mapping other than as the link

	between the CADM System Association and CADM Communication Medium through the CADM System Association Means.
COMM_MEDIUM / COMM_MED_NM	An identifier assigned to the AP233 element representing the System Association classified as COMMUNICATION MEDIUM NAME .
COMM_MEDIUM / COMM_MED_TYPE_NM	The classification of the AP233 element representing the System Association with COMMUNICATION MEDIUM TYPE with the CADM Type Name concatenated.

Table 2: Within the COMM_MEDIUM_TBL CADM XML Element

4.4. System and System Relationship Mapping

This section describes the mapping for the CADM System concept and relationships.

See Example SYSTM for example CADM XML System data.

The following table specifies the System mapping.

CADM XML Element(s)	AP233 Representation
SYSTM	As a <i>System_element</i> , with related version and definition as described in AP233 System breakdowns.
SYSTM / SYS_ID	The assigned identifier of the <i>System_element</i>
SYSTM / SYS_NM	The assigned identifier classified as a Name of the <i>System_element</i>
SYSTM / SYS_ROL_CAT_CD	The mapping of depends on the value as follows. <ul style="list-style-type: none"> 01 = SYSTEM ELEMENT maps as the classification of the <i>System_element</i> as a SYSTEM ELEMENT 02 = INFORMATION PROCESSING SYSTEM maps as the classification of the <i>System_element</i> as a INFORMATION PROCESSING SYSTEM 03 = COMMUNICATION SYSTEM maps as the classification of the <i>System_element</i> as a COMMUNICATION SYSTEM 04 = SENSOR SYSTEM maps as the classification of the <i>System_element</i> as a SENSOR SYSTEM 05 = WEAPON SYSTEM maps as the

SV-1 : Systems Interface Description

	<p>classification of the <i>System_element</i> as a WEAPON SYSTEM</p> <ul style="list-style-type: none"> • 06 = REPRESENTS A SYSTEM COMPONENT OF maps as the classification of the <i>System_element</i> as a SYSTEM COMPONENT • 08 = NOT APPLICABLE and 09 = NOT KNOWN map to no classification.
SYSTEM / SYS_CRITICAL_CD	The the <i>System_element</i> classified as MISSION CRITICAL, MISSION ESSENTIAL or OTHER
SYSTEM / SYS_STATUS_CD	The the <i>System_element_version</i> classified depending on the following: 01 = OPERATIONAL (ACTIVE) as OPERATIONAL , 02 = DEVELOPMENTAL as DEVELOPMENTAL , 03 = CONCEPTUAL, NOT IN DEVELOPMENT as CONCEPTUAL , 04 = INTEGRATION AND TEST (COMPLETED DEVELOPMENT, NOT OPERATIONAL) as INTEGRATION AND TEST , 05 = RETIRED (NEVER TO RETURN TO SERVICE) as RETIRED , 06 = INACTIVE (CURRENTLY NOT OPERATIONAL BUT COULD BE RETURNED TO ACTIVE SERVICE) as INACTIVE , 99 = NOT KNOWN as NOT KNOWN , 98 = NOT SPECIFIED as not classified.
SYSTEM / SYS_NOMEN_NM	The assigned identifier of the <i>System_element</i> classified as a NOMENCLATURE NAME
SYSTEM / SYS_SHRT_NM	The assigned identifier of the <i>System_element</i> classified as a Short Name
SYSTEM / SYS_ALT_NM	The assigned identifier of the <i>System_element</i> classified as an ALTERNATE NAME
SYSTEM / SYS_ACRON_TX	The assigned identifier of the <i>System_element</i> classified as an Abbreviation
SYSTEM / SYS_SRC_NM	Organization / Name where the Organization is assigned to the <i>System_element</i> and the assignment is classified as Source
SYSTEM / SYS_VERS_NM	The assigned identifier of the <i>System_element_version</i>
SYSTEM / SYS_MANU_NM	An Organization (see AP233 Organizations)

	assigned to the <code>System_element_version</code> with the assignment classified as an MANUFACTURER
SYSTEM / SYS_NMNL_USRS_QY	An assigned property for the <code>System_element_definition</code> the assignment is classified as Nominal Users with the value represented as a <code>Numerical_item_with_unit</code> classified as quantity and a Unit of count .
SYSTEM / SYS_UN_CST_AMT	An assigned property for the <code>System_element_definition</code> the assignment is classified as Unit Cost with the value represented as a <code>Numerical_item_with_unit</code> classified as Monetary Value and a Unit of US Dollars .

Table 1: Within the SYSTEM_TBL CADM XML Element

System type is a CADM concept where CADM Systems are classified. As AP233 uses a concept of classification extensively, the CADM System Type concept is mapped in that manner.

See Example SYS_TYPE for example CADM XML System Type.

The following table specifies the System Type mapping.

CADM XML Element(s)	AP233 Representation
SYS_TYPE	<code>External_class</code> (see AP233 Classification)
SYS_TYPE / SYS_TY_ID	<code>External_class</code> assigned identifier
SYS_TYPE / SYS_TY_NM	<code>External_class</code> assigned identifier classified as a Name
SYS_TYPE / SYS_TY_DESCR_TX	External to AP233, this is mapped into the documentation related to the <code>External_class</code> .

Table 2: Within the SYS_TYPE_TBL CADM XML Element

There are several types of relationship between Systems allows in CADM. Not all have yet been mapped into AP233.

See Example SYS_ASSOC for example CADM XML System Association data.

The following table specifies the System Association mapping.

CADM XML Element(s)	AP233 Representation
---------------------	----------------------

SV-1 : Systems Interface Description

SYS_ASSOC	See SYSA_TY_CD below.
SYS_ASSOC / SYSA_TY_CD	<p>The mapping of the SYS_ASSOC itself depends on the value as follows.</p> <ul style="list-style-type: none"> • 01 = SUBORDINATE SYSTEM IS A REVISION OF ORDINATE SYSTEM maps to a <code>Product_version_relationship</code> classified as an SEQUENCE with a child element <code>Relating_version</code> referring to the subordinate system and child element <code>Related_version</code> referring to the ordinate system where the two versions are of the of the same <code>System_element</code> each with related version and definition as described in AP233 System breakdowns • 06 = SUBORDINATE SYSTEM INTERFACES WITH ORDINATE SYSTEM maps to an <code>Interface_connection</code> classified as an SYSTEM_INTERFACE linking two <code>System_element_definition</code> (see AP233 System Breakdowns) as described in AP233 Interfaces and connections. The the ordinate system is referred to through the <code>Connecting</code> child element and the subordinate system is referred to through the <code>Connected</code> child element. • 07 = SUBORDINATE SYSTEM IS A CLIENT FOR ORDINATE SYSTEM maps as 06 above but is classified as an CLIENT_INTERFACE • 08 = SUBORDINATE SYSTEM IS A SERVER FOR ORDINATE SYSTEM maps as 06 above but is classified as an SERVER_INTERFACE • 09 = SUBORDINATE SYSTEM IS AN OPERATING SYSTEM FOR ORDINATE SYSTEM maps as 06 above but is classified as an OPERATING_SYSTEM_INTERFACE • 10 = SUBORDINATE SYSTEM PROVIDES OFFICE AUTOMATION FOR ORDINATE SYSTEM maps as 06 above but is classified as an OFFICE_AUTOMATION_INTERFACE • 13 = ORDINATE SYSTEM IS INITIATOR AND SUBORDINATE SYSTEM IS RECEPTOR IN maps as 06 above but is classified as an INITIATOR_RECEPTOR_INTERFACE • 98 = NOT SPECIFIED maps as 06 above but is classified as an NOT_SPECIFIED_INTERFACE • 99 = NOT KNOWN maps as 06 above but is

SV-1 : Systems Interface Description

	<p>classified as an NOT KNOWN INTERFACE</p> <ul style="list-style-type: none"> • 11 = SUBORDINATE SYSTEM IS A SUBSYSTEM OF ORDINATE SYSTEM maps to a <code>System_element_usage</code> as specified in AP233 System Breakdowns (also see AP233 Breakdowns) classified as an SYSTEM DECOMPOSITION USAGE Both <code>System_elements</code> should have been classified as a SYSTEM ELEMENT as specified above. • 12 = SUBORDINATE SYSTEM IS A COMPONENT OF ORDINATE SYSTEM maps to a <code>System_element_usage</code> as specified in AP233 System Breakdowns (also see AP233 Breakdowns). classified as an SYSTEM COMPONENT USAGE The subordinate <code>System_element</code> should have been classified as a SYSTEM COMPONENT as specified above. • 15 = SUBORDINATE SYSTEM IS AN ALIAS FOR ORDINATE SYSTEM maps to the assigned identifier of the AP233 element representing the ordinate system classified as an ALIAS NAME • 05 = SUBORDINATE SYSTEM IS INSTALLED IN ORDINATE SYSTEM is not mapped in this documentation. See SV-1 Issues. • 14 = SUBORDINATE SYSTEM IS A TYPE OF ORDINATE SYSTEM is not mapped in this documentation. See SV-1 Issues. • 02 = SUBORDINATE SYSTEM IS AN UPGRADE PLANNED FOR ORDINATE SYSTEM is not mapped in this documentation. See SV-1 Issues. • 03 = SUBORDINATE SYSTEM MIGRATES FROM ORDINATE SYSTEM is not mapped in this documentation. See SV-1 Issues. • 04 = SUBORDINATE SYSTEM REPLACES ORDINATE SYSTEM is not mapped in this documentation. See SV-1 Issues.
SYS_ASSOC / ORD_SYS_ID	The child element of appropriate AP233 relationship with name ending in "ing" (e.g. <code>Relating_version</code>) referring to the ordinate system.
SYS_ASSOC / SUB_SYS_ID	The child element of appropriate AP233 relationship with name ending in "ed" (e.g. <code>Related_version</code>) referring to the

SV-1 : Systems Interface Description

	subordinate system.
SYS_ASSOC / SYSA_ID	The assigned identifier of the AP233 element representing the CADM System Association.
SYS_ASSOC / SYSA_BEGIN_CALDT and SYSA_END_CALDT	An AP233 Date related to the element representing the SYS_ASSOC itself classified as a DATE_START or a DATE_END respectively.
SYS_ASSOC / SYSA_NM	The assigned identifier classified as a Name of the AP233 concept representing the specific CADM System Association in question.
SYS_ASSOC / SYSA_DESCR_TX	The <i>Description</i> child element of the AP233 concept representing the specific CADM Node Association in question.
SYS_ASSOC / SYSA_QY	A property (see AP233 Properties) assigned to the AP233 concept representing the CADM System Association where the <i>Assigned_property</i> is classified as a Quantity with an associated number value and a Unit of Count .
SYS_ASSOC / CSC_ID	See SV-1 Issues
SYS_ASSOC / SC_CD	The assignment of a <i>Security_classification</i> to the AP233 concept representing the specific CADM Node Association in question with child element <i>Security_level</i> containing the text (not the number) as follows: 01 = CONFIDENTIAL, 02 = CONFIDENTIAL RESTRICTED, 03 = FOR OFFICIAL USE ONLY, 04 = NATO CONFIDENTIAL, 05 = NATO CONFIDENTIAL ATOMAL, 06 = NATO RESTRICTED, 07 = NATO SECRET, 08 = NATO SECRET ATOMAL, 09 = NATO TOP SECRET, 10 = NATO TOP SECRET ATOMAL, 11 = SECRET, 12 = SECRET RESTRICTED, 13 = TOP SECRET, 14 = UNCLASSIFIED, 15 = UNCLASSIFIED SENSITIVE, 16 = NATO UNCLASSIFIED, 17 = NO CLASSIFICATION, 18 = CONFIDENTIAL/NO FOREIGN, and 19 = SECRET/NO FOREIGN
SYS_ASSOC / SYSA_INTRFC_STA_CD	A classification of the AP233 concept representing the CADM System Association as one of the applicable levels (e.g. when 01 =

	EXISTING).
SYS_ASSOC / SYSA_INTROP_LVL_CD	A classification of the AP233 concept representing the CADM System Association as one of the applicable levels (e.g. when 7 = 1: Level 1--Connected Level (Peer-to-Peer), without sublevel distinction).

Table 3: Within the SYS_ASSOC_TBL CADM XML Element

4.5. Node and Node Relationship Mapping

This section describes the mapping for the CADM Node concept and relationships.

See Example NODE for example CADM XML Node data.

The following table specifies the Node mapping.

CADM XML Element(s)	AP233 Representation
NODE	See mapping for NODE / NODE_CAT_CD.
NODE / NODE_CAT_CD	<p>The mapping of the NODE itself depends on the value as follows.</p> <ul style="list-style-type: none"> • 05 = CM--COMMUNICATIONS NODE maps as a System_element, with related version and definition as described in AP233 System breakdowns classified as a COMMUNICATIONS NODE. • 06 = EX (WEAPON)--EXECUTION NODE maps as a System_element, with related version and definition as described in AP233 System breakdowns classified as an EXECUTION NODE. • 07 = PR--PROCESSING NODE; • 08 = PL--PLATFORM maps as a System_element, with related version and definition as described in AP233 System breakdowns classified as a PLATFORM NODE. • 09 = PA--PROCESS ACTIVITY maps as described under OV-5 classified as a PROCESS ACTIVITY NODE • 10 = SY--SYSTEM maps as a System_element, with related version and definition as described in AP233 System breakdowns classified as a SYSTEM NODE. • 11 = SE--SYSTEM ELEMENT As a System_element, with related version and

	<p>definition as described in AP233 System breakdowns classified as a SYSTEM ELEMENT NODE.</p> <ul style="list-style-type: none">• 12 = O--ORGANIZAION maps to AP233 Organization classified as a ORGANIZATION NODE• 13 = P--PERSON maps to AP233 Person classified as a PERSON NODE• 15 = OT--ORGANIZATION TYPE maps to AP233 Organization Type classified as a ORGANIZATION TYPE NODE• 16 = FACILITY maps to AP233 Location classified as a FACILITY NODE• 17 = PROCESS ACTIVITY maps as described under OV-5 classified as a PROCESS ACTIVITY NODE• 18 = TASK;• 96 = MIXED CATEGORY maps as a System_element, with related version and definition as described in AP233 System breakdowns classified as a MIXED CATEGORY NODE.• 97 = M--NOT APPLICABLE maps as a System_element, with related version and definition as described in AP233 System breakdowns classified as a NOT APPLICABLE NODE.• 98 = NOT SPECIFIED maps as a System_element, with related version and definition as described in AP233 System breakdowns classified as a NOT SPECIFIED NODE.• 99 = X--NOT KNOWN maps as a System_element, with related version and definition as described in AP233 System breakdowns classified as a NOT KNOWN NODE.• 14 = SI--SYSTEM INSTANCE(S) is not mapped in the current document. See SV-1 Issues.• 01 = AS - ASSESSMENT NODE is not mapped in the current document. See SV-1 Issues• 02 = C2 (BM)--BATTLE MANAGEMENT NODE is not mapped in the current document. See SV-1 Issues• 03 = CL -- COLLECTION NODE is not mapped in the current document. See SV-1 Issues.• 04 = CD--COMBAT DIRECTION NODE is not mapped in the current document. See SV-1
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SV-1 : Systems Interface Description

	Issues.
NODE / NODE_ID	The assigned identifier of the AP233 concept representing the specific CADM Node in question.
NODE / NODE_NM	The assigned identifier classified as a Name of the AP233 concept representing the specific CADM Node in question.
NODE / NODE_PHY_IND_CD	A classification of the AP233 element representing the node depending on the following values as 1 = LOGICAL , 2 = PHYSICAL , and if 9 = NOT KNOWN or 8 = N--NOT SPECIFIED then not classified.
NODE / NODE_DESCR_TX	The <i>Description</i> child element of the AP233 concept representing the specific CADM Node in question.
NODE / NODE_LOC_TX	See AP233 Location where the <i>Location_assignment</i> child <i>Entity_for_location</i> refers to the AP233 element representing the NODE and the <i>Location / Description</i> contains the NODE_LOC_TX text.

Table 1: Within the NODE_TBL CADM XML Element

See Example NODE_ASSOC for example CADM XML Node Association data.

The following table specifies the CADM Node Association mapping.

CADM XML Element(s)	AP233 Representation
NODE_ASSOC	See NODE_ASSOC / NA_CAT_CD below.
NODE_ASSOC / NA_CAT_CD	<ul style="list-style-type: none"> When 1 = NODE HIERARCHY, maps to a relationship between the representations of the two Nodes in question. That relationship is classified as a Decomposition. The name of this AP233 relationship varies depending on the mapping of the Node itself. For example, <i>Organization_relationship</i> links two Organizations. When 2 = NODE LINK, 8 = NOT APPLICABLE or 9 = NOT KNOWN, no classification is applied and a typical Node Link is assumed between Nodes and/or Node Ports mapped to an <i>Interface_connection</i> as

SV-1 : Systems Interface Description

	specified in AP233 Interfaces.
NODE_ASSOC / NODE_1_NODE_ID	As part of the definition of the relationship between the representation of the Nodes in question, this maps to a reference through the element with a name ending in "ing" (vs. "ed" which is the child in a decomposition). In most uses this is the <i>Relating</i> element.
NODE_ASSOC / NODE_2_NODE_ID	As part of the definition of the relationship between the representation of the Nodes in question, this maps to a reference through the element with a name ending in "ed" (vs. "ing" which is the parent in a decomposition). In most uses this is the <i>Related</i> element.
NODE_ASSOC / NA_ID	The assigned identifier of the AP233 concept representing the specific CADM Node Association in question.
NODE_ASSOC / NA_NM	The assigned identifier classified as a Name of the AP233 concept representing the specific CADM Node Association in question.
NODE_ASSOC / NA_DESCR_TX	The <i>Description</i> child element of the AP233 concept representing the specific CADM Node Association in question.
NODE_ASSOC / NA_USE_TY_CD	A classification of the AP233 element representing the Node Association depending on the following values. <ul style="list-style-type: none"> • 01 = RELATES AN OPERATIONAL NODE WITH ANOTHER OPERATIONAL NODE maps to OPERATIONAL-OPERATIONAL • 02 = RELATES A SYSTEM NODE WITH ANOTHER SYSTEM NODE maps to SYSTEML-SYSTEM • 03 = RELATES AN ORGANIZATIONAL NODE WITH ANOTHER ORGANIZATIONAL NODE maps to ORGANIZATIONAL-ORGANIZATIONAL • 04 = RELATES AN OPERATIONAL NODE WITH A SYSTEM NODE (THE OPERATIONAL NODE MAY BE EITHER NODE 1 OR NODE 2, AND THE SYSTEM NODE MAY BE EITHER NODE 2 OR NODE 1, RESPECTIVELY) maps to OPERATIONAL-SYSTEM • 05 = RELATES AN OPERATIONAL NODE

	<p>WITH AN ORGANIZATIONAL NODE (THE OPERATIONAL NODE MAY BE EITHER NODE 1 OR NODE 2, AND THE ORGANIZATION NODE MAY BE EITHER NODE 2 OR NODE 1, RESPECTIVELY) maps to OPERATIONAL-ORGANIZATIONAL</p> <ul style="list-style-type: none"> • 06 = RELATES AN ORGANIZATIONAL NODE WITH A SYSTEM NODE (THE ORGANIZATION NODE MAY BE EITHER NODE 1 OR NODE 2, AND THE SYSTEM NODE MAY BE EITHER NODE 2 OR NODE 1, RESPECTIVELY) maps to ORGANIZATIONAL-SYSTEM • 97 = OTHER RELATION maps to OTHER RELATION • 98 = NOT SPECIFIED maps to not classified. • 99 = NOT KNOWN maps to NOT KNOWN
<p>NODE_ASSOC / NA_COLLOC_IND_CD and NA_TY_CD</p>	<p>A classification of the AP233 element representing the Node Association depending on the following values.</p> <ul style="list-style-type: none"> • For NA_COLLOC_IND_CD 01 = COLLOCATED, 02 = NOT COLLOCATED, 03 = PORTIONS COLLOCATED AND OTHER PORTIONS NOT COLLOCATED and if 08 = NOT APPLICABLE or 09 = NOT KNOWN then not classified. • For NA_TY_CD 01 = IS A PRIMARY SUPPORTING NODE FOR, 02 = IS A SECONDARY SUPPORTING NODE FOR, 03 = IS A NON-ESSENTIAL SUPPORTING NODE FOR, 04 = OPERATES USING, and if 08 = NOT APPLICABLE or 09 = NOT KNOWN then not classified.
<p>NODE_ASSOC / DOC_ID</p>	<p>An AP233 Document assigned to the AP233 element representing the Node Association.</p>
<p>NODE_ASSOC / NODE_1_NODPRT_ID and NODE_2_NODPRT_ID</p>	<p>As part of the definition of the relationship between the <code>Interface_connector_definitions</code> representing the Node Ports in question, this maps to a reference through the element with a name ending in "ing" (vs. "ed" which is the child in a decomposition). In most uses this is the <code>Relating</code> element.</p>

Table 2: Within the NODE_ASSOC_TBL CADM XML Element

4.6. Node Port Mapping

This section describes the mapping for the CADM Node Port concept.

See Example NODE_PORT for example CADM XML Node Port data.

The following table specifies the Node Port mapping.

CADM XML Element(s)	AP233 Representation
NODE_PORT	An <code>Interface_connector_definition</code> as defined in AP233 Interfaces.
NODE_PORT / NODE_ID	The <code>Interface_connector_definition</code> child element <code>Connector_on</code> referring to the AP233 definition representing the CADM Node as defined in AP233 Interfaces.
NODE_PORT / NODPRT_ID	The assigned identifier of the <code>Interface_connector</code> .
NODE_PORT / NODPRT_NM	The assigned identifier classified as a Name of the <code>Interface_connector</code> .
NODE_PORT / NODPRT_DESCR_TX	The <code>Description</code> child element of the <code>Interface_connector_definition</code> .
NODE_PORT / DLL_ITSTD_AGR_ID and NL_ITSTD_AGR_ID	A link to an agreement represented as specified in TV-1

Table 1: Within the NODE_PORT_TBL CADM XML Element

4.7. SV-1 Relationships Mapping

This section describes the mapping for the many CADM relationships that can be defined between concepts supported by SV-1.

In the CADM data elements, almost any two concepts can be related. For example, the CADM NODE-ORGANIZATION concept represented by the NODE_ORG_TBL relates a CADM Node and a CADM Organization. The NODE_ORG element has children that are the identifier of a Node, the identifier of an Organization, descriptive text, an identifier for the relationship and a role, type or category to be applied to the relationship. Almost all of these kinds of CADM relationships map to similar structures as explained in AP233 Assignments.

See Example NODE_ORG for example CADM XML Node Organization data.

The following table specifies the mapping for the NODE_ORG_TBL CADM element. Based

on this, implementers should be able to follow the pattern and map CADM relationships into AP233 Assignments.

CADM XML Element(s)	AP233 Representation
NODE_ORG	An Organization_or_person_in_organization_assignment following the pattern in AP233 Assignment. In this case, a single kind of assignment supports either organization or person in organization being assigned.
NODE_ORG / NODE_ID	Maps to the Items child element referring to the AP233 concept representing the Node.
NODE_ORG / NODE_ORG_DESCR_TX	Maps to text contained in the Description child element of the assignment.
NODE_ORG / NODE_ORG_ID	The assigned identifier of the Organization_or_person_in_organization_assignment
NODE_ORG / NODE_ORG_ROLE_CD	A classification of the Organization_or_person_in_organization_assignment based on the following values. In each case, External Classes must be defined with the name based on the text, not the number. <ul style="list-style-type: none"> • 01 = NODE IS A SITE OF OPERATIONS FOR ORGANIZATION • 02 = NODE IS MAINTAINED BY ORGANIZATION • 03 = NODE IS AN ADDRESS FOR ORGANIZATION • 04 = NODE IS SUPPORTED BY ORGANIZATION • 05 = NODE IS SET UP BY ORGANIZATION • 06 = NODE IS REQUIRED TO SUPPORT ORGANIZATION • 07 = NODE REPRESENTS ORGANIZATION • 08 = NOT SPECIFIED maps to no classification. • 09 = NOT KNOWN • 10 = NODE IS OWNED BY ORGANIZATION
NODE_ORG / ORG_ID	Maps to the Assigned_entity child element referring to the Organization.

Table 1: Within the NODE_ORG_TBL CADM XML Element

5. SV-1 Uses These AP233 Concepts

SV-1 : Systems Interface Description

This section contains links into the AP233 documentation for the concepts used in the SV-1 mapping. This section is simply set of all links found in the previous sections of the SV-1 mapping.

- AP233 approach to documents
- AP233 classified
- AP233 classification
- AP233 assigned identifier
- AP233 date assigned
- AP233 Approval
- AP233 identifier
- AP233 assigned identifier
- AP233 Properties
- AP233 assignment
- AP233 System breakdowns
- AP233 Organizations
- AP233 assigned property
- AP233 Interfaces and connections
- AP233 Organization
- AP233 Person
- AP233 Location
- AP233 Interfaces
- AP233 Breakdowns
- AP233 Properties

6. Example SV-1 CADM XML Data

This section contains example SV-1 CADM XML data.

6.1. Example SYSTM_IF_DESCR and SYSTM_IF_DESCR_EL

```
<SYS_IF_DESCR>
  <DOC_ID>333</DOC_ID>
</SYS_IF_DESCR>

<DOC>
  <DOC_ID>333</DOC_ID>
  <DOC_NM>TRP SYSTEM-INTERFACE-DESCRIPTION {SV-1}</DOC_NM>
  <SC_CD>14</SC_CD>
  <CSC_ID>20000001</CSC_ID>
  <TIME_FRAME_PRD_ID>20102341</TIME_FRAME_PRD_ID>
  <DOC_APP_CALDT>20031126</DOC_APP_CALDT>
  <DOC_ABBRV_NM>TRP SID</DOC_ABBRV_NM>
  <DOC_ARCHPROD_TY_CD>98</DOC_ARCHPROD_TY_CD>
  <DOC_ORIGINATOR_NM>AIP PHASE II TEAM</DOC_ORIGINATOR_NM>
```

```

<DOC_CRTN_CALDT>20031203</DOC_CRTN_CALDT>
<DOC_DESC_TX>DEPICTION OF THE ASSIGNMENTS OF SPECIFIC TRP
    ARCHITECTURE SYSTEMS AND
    THEIR INTERFACES TO NODES AND NEED LINES
</DOC_DESC_TX>
<DOC_NOTATION_TX>TEXT</DOC_NOTATION_TX>
<DOC_CAT_CD>J</DOC_CAT_CD>
<DOC_PROMULG_CD>998</DOC_PROMULG_CD>
<DOC_RMKTX>VALIDATED FOR AIPP PHASE II UNDER
    OASD(NII) GUIDANCE
</DOC_RMKTX>
<DOC_TMPRL_SCP_CD>3</DOC_TMPRL_SCP_CD>
<DOC_VER_ID>VERSION 1.0</DOC_VER_ID>
<DCMNT_RNG_CD>B</DCMNT_RNG_CD>
<DOC_URL_TX>NONE PROVIDED</DOC_URL_TX>
<DOC_TY_CD>98</DOC_TY_CD>
<DOC_PUB_DT>20031203</DOC_PUB_DT>
</DOC>

<SYS_IF_DESCR_EL>
<DOC_ID>333</DOC_ID>
<SYS_IFDE_ID>1414001</SYS_IFDE_ID>
<ORD_SYS_ID>21050300</ORD_SYS_ID>
<SUB_SYS_ID>21050301</SUB_SYS_ID>
<SYSA_ID>1007</SYSA_ID>
<SYSAME_ID>1</SYSAME_ID>
</SYS_IF_DESCR_EL>

```

6.2. Example DOC

```

<DOC>
<DOC_ID>318</DOC_ID>
<DOC_NM>TRP Level 1 (A1) Diagram</DOC_NM>
<SC_CD>14</SC_CD>
<CSC_ID>20000001</CSC_ID>
<TIME_FRAME_PRD_ID>20102341</TIME_FRAME_PRD_ID>
<DOC_APP_CALDT>20031126</DOC_APP_CALDT>
<DOC_ABBRV_NM>TRP A1</DOC_ABBRV_NM>
<DOC_ARCHPROD_TY_CD>1</DOC_ARCHPROD_TY_CD>
<DOC_ORIGINATOR_NM>AIP PHASE II TEAM</DOC_ORIGINATOR_NM>
<DOC_CRTN_CALDT>20031203</DOC_CRTN_CALDT>
<DOC_DESC_TX>OV-5 A1 DIAGRAM FOR TRP
    INTEGRATED ARCHITECTURE
</DOC_DESC_TX>
<DOC_NOTATION_TX>IDEF0</DOC_NOTATION_TX>
<DOC_CAT_CD>J</DOC_CAT_CD>
<DOC_PROMULG_CD>998</DOC_PROMULG_CD>
<DOC_RMKTX>VALIDATED FOR AIPP PHASE II UNDER
    OASD(NII) GUIDANCE
</DOC_RMKTX>
<DOC_TMPRL_SCP_CD>3</DOC_TMPRL_SCP_CD>
<DOC_VER_ID>VERSION 1.0</DOC_VER_ID>
<DCMNT_RNG_CD>B</DCMNT_RNG_CD>
<DOC_URL_TX>NONE PROVIDED</DOC_URL_TX>

```

SV-1 : Systems Interface Description

```
<DOC_TY_CD>98</DOC_TY_CD>  
<DOC_PUB_DT>20031203</DOC_PUB_DT>  
</DOC>
```

6.3. Example SYSTM

```
<SYSTM>  
  <SYS_ID>21050300</SYS_ID>  
  <ITREGIS_ID>200001</ITREGIS_ID>  
  <NODE_ICON_ID>202021</NODE_ICON_ID>  
  <SYS_TY_ID>1374</SYS_TY_ID>  
  <SYS_DETAIL_TX>The software for this system is all  
    in Java which makes it portable  
    to most operating systems  
  </SYS_DETAIL_TX>  
  <SYS_NM>Missions and Plans Assessment Module</SYS_NM>  
  <TIME_FRAME_PRD_ID>20102341</TIME_FRAME_PRD_ID>  
  <SYS_NOMEN_NM>AIS TACT IP</SYS_NOMEN_NM>  
  <SYS_SHRT_NM>Msn and Plans Mod</SYS_SHRT_NM>  
  <SYS_Y2K_DOD_ID>21050300</SYS_Y2K_DOD_ID>  
  <SYS_ACRON_TX>TRP-MAPAM</SYS_ACRON_TX>  
  <SYS_DESCR_TX>This system is designed to perform advanced  
    text parsing and analysis.  
    Plans and missions are analyzed using advanced  
    inference rules to generate TR needs.  
  </SYS_DESCR_TX>  
  <SYS_ALT_NM>TRP MS MOD</SYS_ALT_NM>  
  <SYS_SRC_NM>ARMY HQ</SYS_SRC_NM>  
  <SYS_NMNL_USRS_QY>10</SYS_NMNL_USRS_QY>  
  <SYS_MDL_ID>TRP-MS-MOD1001</SYS_MDL_ID>  
  <SYS_PURP_TX>Automated retrieval and assessment of  
    missions and plans wrt reconnaissance needs  
  </SYS_PURP_TX>  
  <SYS_STATUS_CD>2</SYS_STATUS_CD>  
  <SYS_ROL_CAT_CD>2</SYS_ROL_CAT_CD>  
  <SYS_UN_CST_AMT>100000</SYS_UN_CST_AMT>  
  <SYS_VERS_NM>1.0</SYS_VERS_NM>  
  <SYS_MANU_MOD_TX>NONE</SYS_MANU_MOD_TX>  
  <SYS_MANU_NM>FRALLOGIX INC.</SYS_MANU_NM>  
  <SYS_Y2K_COMP_LV_CD>5</SYS_Y2K_COMP_LV_CD>  
  <SYS_SW_INTF_TX>The system interfaces with the  
    Army Missions and Plans DB System,  
    the Army Doctrine and Directives Module,  
    the Sensor Inventory DB and the TRP-UM  
  </SYS_SW_INTF_TX>  
  <SYS_CRITICAL_CD>MC</SYS_CRITICAL_CD>  
  <SYS_COMMENT_TX>The quality of the output from this module  
    in large part determines  
    the results of the entire TRP generation.  
  </SYS_COMMENT_TX>  
</SYSTM>
```

6.4. Example SYS_TYPE

```

<SYS_TYPE>
  <SYS_TY_ID>1374</SYS_TY_ID>
  <SYS_TY_DESCR_TX>TACTICAL ELECTRONIC RECONNAISSANCE PROG & amp; EVAL
SYS</SYS_TY_DESCR_TX>
  <SYS_TY_NM>TACTICAL ELECTRONIC RECONNAISSANCE PROG & amp; EVAL
SYS</SYS_TY_NM>
  <SYS_TY_ALT_ID>TRPX101</SYS_TY_ALT_ID>
</SYS_TYPE>

```

6.5. Example SYS_ASSOC

```

<SYS_ASSOC>
  <SYSA_ID>1007</SYSA_ID>
  <ORD_SYS_ID>21050300</ORD_SYS_ID>
  <SUB_SYS_ID>21050301</SUB_SYS_ID>
  <SYSA_DESCR_TX>Interface between TRP-MAPAM and TRP-UM</SYSA_DESCR_TX>
  <SC_CD>14</SC_CD>
  <CSC_ID>20000001</CSC_ID>
  <SYSA_INTRFC_STA_CD>4</SYSA_INTRFC_STA_CD>
  <SYSA_INTROP_LVL_CD>23</SYSA_INTROP_LVL_CD>
  <SYSA_BEGIN_CALDT>20070101</SYSA_BEGIN_CALDT>
  <SYSA_END_CALDT>20150101</SYSA_END_CALDT>
  <SYSA_TY_CD>6</SYSA_TY_CD>
  <SYSA_NM>TRP-MAPAM-to-TRP-UM interface</SYSA_NM>
  <SYSA_QY>1</SYSA_QY>
</SYS_ASSOC>

```

6.6. Example SYS_ASSOC_MEANS

```

<SYS_ASSOC_MEANS>
  <ORD_SYS_ID>21050300</ORD_SYS_ID>
  <SUB_SYS_ID>21050301</SUB_SYS_ID>
  <SYSA_ID>1007</SYSA_ID>
  <SYSAME_ID>1</SYSAME_ID>
  <PRI_COMM_MED_ID>10002</PRI_COMM_MED_ID>
  <COMM_SYS_ID>21050316</COMM_SYS_ID>
  <AGR_ID>20003227</AGR_ID>
  <SYSAME_TY_CD>1</SYSAME_TY_CD>
</SYS_ASSOC_MEANS>

```

6.7. Example COMM_MEDIUM

```

<COMM_MEDIUM>
  <COMM_MED_ID>10002</COMM_MED_ID>
  <COMM_MED_CAT_CD>13</COMM_MED_CAT_CD>
  <COMM_MED_NM>TRP internodal coaxial cable data transmission</COMM_MED_NM>
  <COMM_MED_ABBR_NM>TRPCOAX</COMM_MED_ABBR_NM>
  <COMM_MED_TYPE_NM>COAXIAL CABLE</COMM_MED_TYPE_NM>
</COMM_MEDIUM>

```

6.8. Example NODE

```

<NODE>
  <NODE_ID>606061</NODE_ID>

```

SV-1 : Systems Interface Description

```
<NODE_CAT_CD>15</NODE_CAT_CD>
<NODE_ICON_ID>202038</NODE_ICON_ID>
<NODE_DESCR_TX>TRP-Node1</NODE_DESCR_TX>
<NODE_LIM_DESCR_TX>Processes TRP data</NODE_LIM_DESCR_TX>
<NODE_NM>TRP-Node1</NODE_NM>
<NODE_PHY_IND_CD>1</NODE_PHY_IND_CD>
<NODE_LOC_TX>To be determined</NODE_LOC_TX>
<NODE_CCSD_USER_CD>E</NODE_CCSD_USER_CD>
</NODE>
```

6.9. Example NODE_ASSOC

```
<NODE_ASSOC>
  <NODE_1_NODE_ID>606061</NODE_1_NODE_ID>
  <NODE_2_NODE_ID>606062</NODE_2_NODE_ID>
  <NA_TY_CD>4</NA_TY_CD>
  <NA_ID>101</NA_ID>
  <LINK_ICON_ID>202056</LINK_ICON_ID>
  <NA_CAT_CD>1</NA_CAT_CD>
  <NODE_1_NODPRT_ID>70701</NODE_1_NODPRT_ID>
  <NODE_2_NODPRT_ID>70702</NODE_2_NODPRT_ID>
  <DOC_ID>318</DOC_ID>
  <NA_COLLOC_IND_CD>1</NA_COLLOC_IND_CD>
  <NA_DESCR_TX>Node Assn between TRP-Node1 and TRP-Node2</NA_DESCR_TX>
  <NA_NM>TRP[Node1-Node2]Assoc</NA_NM>
  <NA_USE_TY_CD>3</NA_USE_TY_CD>
</NODE_ASSOC>
```

6.10. Example NODE_PORT

```
<NODE_PORT>
  <NODE_ID>606061</NODE_ID>
  <NODPRT_ID>70701</NODPRT_ID>
  <NL_ITSTD_AGR_ID>20003228</NL_ITSTD_AGR_ID>
  <DLL_ITSTD_AGR_ID>20003227</DLL_ITSTD_AGR_ID>
  <NODPRT_NM>NODE PORT--70701 [TRP-Node1]</NODPRT_NM>
  <NODPRT_DESCR_TX>Node port for TRP-Node1</NODPRT_DESCR_TX>
</NODE_PORT>
```

6.11. Example NODE_ORG

```
<NODE_ORG>
  <NODE_ID>606073</NODE_ID>
  <ORG_ID>23000079</ORG_ID>
  <NODE_ORG_ID>10101</NODE_ORG_ID>
  <NODE_ORG_ROLE_CD>7</NODE_ORG_ROLE_CD>
  <NODE_ORG_DESCR_TX>TRP_GENCELL NODE REPRESENTS A SUBCOMPONENT OF THE ARMY
HQ
      IN CHARGE OF PLAN GENERATION AND VALIDATION
  </NODE_ORG_DESCR_TX>
</NODE_ORG>
```

7. Example SV-1 AP233 XML Data

This section contains example SV-1 AP233 XML data.

7.1. Example System_element, System_element_version and System_element_definition

```

<ap233:System_element id="id-sysel12699">
  <Id>21050300</Id>
  <Name>Missions and Plans Assessment Module</Name>
</ap233:System_element>

<ap233:Identification_assignment
  id="id-sysel12699-idassign">
  <Identifier>21050300</Identifier>
  <Role>System_element_identification_code</Role>
  <Items>
    <ap233:System_element ref="id-sysel12699" xsi:nil="true" />
  </Items>
</ap233:Identification_assignment>

<ap233:Classification_assignment id="id-930393039393">
  <Items>
    <ap233:Identification_assignment ref="id-sysel12699-idassign"
xsi:nil="true" />
  </Items>
  <Assigned_class>
    <ap233:External_class ref="id-System_element_identification_code"
xsi:nil="true" />
  </Assigned_class>
</ap233:Classification_assignment>

<ap233:Identification_assignment id="id-sysel12699Name-idassign">
  <Identifier>Missions and Plans Assessment Module</Identifier>
  <Role>Name</Role>
  <Items>
    <ap233:System_element ref="id-sysel12699" xsi:nil="true" />
  </Items>
</ap233:Identification_assignment>

<ap233:Classification_assignment id="id-930393039355">
  <Items>
    <ap233:Identification_assignment ref="id-sysel12699Name-idassign"
xsi:nil="true" />
  </Items>
  <Assigned_class>
    <ap233:External_class ref="id-Name" xsi:nil="true" />
  </Assigned_class>
</ap233:Classification_assignment>

<ap233:System_element_version id="id-syselver12699">
  <Id>1.0</Id>
  <Of_product>
    <ap233:System_element ref="id-sysel12699" xsi:nil="true" />
  </Of_product>

```

SV-1 : Systems Interface Description

```
</Of_product>
</ap233:System_element_version>

<ap233:System_element_definition id="id-syseldef12699">
  <Id>1</Id>
  <Name>Missions and Plans Assessment Module</Name>
  <Defined_version>
    <ap233:System_element_version ref="id-syselver12699" xsi:nil="true" />
  </Defined_version>
  <Initial_context>
    <ap233:View_definition_context ref="id-sv1" xsi:nil="true" />
  </Initial_context>
</ap233:System_element_definition>

<ap233:Classification_assignment
id="id-sysel12699-classification_assignment">
  <Items>
    <ap233:System_element ref="id-sysel12699" xsi:nil="true" />
  </Items>
  <Assigned_class>
    <ap233:External_class ref="id-System" xsi:nil="true" />
  </Assigned_class>
</ap233:Classification_assignment>

<ap233:Classification_assignment
id="id-syselver12699-classification_assignment">
  <Items>
    <ap233:System_element_version ref="id-syselver12699" xsi:nil="true" />
  </Items>
  <Assigned_class>
    <ap233:External_class ref="id-System" xsi:nil="true" />
  </Assigned_class>
</ap233:Classification_assignment>

<ap233:Classification_assignment
id="id-syseldef12699-classification_assignment">
  <Items>
    <ap233:System_element_definition ref="id-syseldef12699" xsi:nil="true"
/>
  </Items>
  <Assigned_class>
    <ap233:External_class ref="id-System" xsi:nil="true" />
  </Assigned_class>
</ap233:Classification_assignment>
```

7.2. Example Interface_connection

```
<ap233:Interface_connection id="id-iconn16650">
  <Id>1007</Id>
  <Description>Interface between TRP-MAPAM and TRP-UM</Description>
  <Connection_type>System_interface</Connection_type>
  <Connecting>
    <ap233:System_element_definition ref="id-syseldef12699" xsi:nil="true"
/>
  </Connecting>
</ap233:Interface_connection>
```

```

</Connecting>
<Connected>
  <ap233:System_element_definition ref="id-syseldef12783" xsi:nil="true"
/>
</Connected>
</ap233:Interface_connection>

<ap233:Classification_assignment
id="id-iconn16650-classification_assignment">
  <Items>
    <ap233:Interface_connection ref="id-iconn16650" xsi:nil="true" />
  </Items>
  <Assigned_class>
    <ap233:External_class ref="id-System_interface" xsi:nil="true" />
  </Assigned_class>
</ap233:Classification_assignment>

```

7.3. Example Document_assignment

```

<ap233:Document_assignment id="id-docassn26022">
  <Assigned_document>
    <ap233:Document_definition ref="id-docdef8757" xsi:nil="true" />
  </Assigned_document>
  <Is_assigned_to>
    <ap233:Interface_connection ref="id-iconn16650" xsi:nil="true" />
  </Is_assigned_to>
  <Role>System_interface_description_element</Role>
</ap233:Document_assignment>

<ap233:Classification_assignment
id="id-docassn26022-classification_assignment">
  <Items>
    <ap233:Document_assignment ref="id-docassn26022" xsi:nil="true" />
  </Items>
  <Assigned_class>
    <ap233:External_class ref="id-System_interface_description_element"
xsi:nil="true" />
  </Assigned_class>
</ap233:Classification_assignment>

```

7.4. Example Organization_or_person_in_organization_assignment

```

<ap233:Organization_or_person_in_organization_assignment
id="id-oopioa-id-org13283--id-syselver13212">
  <Assigned_entity>
    <ap233:Organization ref="id-org13283" xsi:nil="true" />
  </Assigned_entity>
  <Role>Manufacturer</Role>
  <Items>
    <ap233:System_element_version ref="id-syselver13212" xsi:nil="true" />
  </Items>
</ap233:Organization_or_person_in_organization_assignment>

<ap233:Organization id="id-org13283">

```

SV-1 : Systems Interface Description

```
</ap233:Organization>
<ap233:Classification_assignment id="id-94049404949">
  <Items>
    <ap233:Organization_or_person_in_organization_assignment
      ref="id-oopioa-id-org13283--id-syselver13212" xsi:nil="true" />
  </Items>
  <Assigned_class>
    <ap233:External_class ref="id-Manufacturer" xsi:nil="true" />
  </Assigned_class>
</ap233:Classification_assignment>
```

7.5. Example Assigned_property

```
<ap233:System_element_definition id="id-syseldef12699">
  <Id>1</Id>
  <Name>Missions and Plans Assessment Module</Name>
  <Defined_version>
    <ap233:System_element_version ref="id-syselver12699" xsi:nil="true" />
  </Defined_version>
  <Initial_context>
    <ap233:View_definition_context ref="id-sv1" xsi:nil="true" />
  </Initial_context>
</ap233:System_element_definition>

<ap233:Numerical_item_with_unit id="id-niwul2758">
  <Value_component>100000</Value_component>
  <Unit>
    <ap233:Unit ref="id-usd" xsi:nil="true" />
  </Unit>
</ap233:Numerical_item_with_unit>

<ap233:Property_value_representation id="id-pvrep12758">
  <Context_of_items>
    <ap233:Numerical_representation_context
      ref="id-Numerical_representation_context-currency" xsi:nil="true" />
  </Context_of_items>
  <Items>
    <ap233:Numerical_item_with_unit ref="id-niwul2758" xsi:nil="true" />
  </Items>
</ap233:Property_value_representation>

<ap233:Property_representation id="id-pvrep12758">
  <Description>12758</Description>
  <Property>
    <ap233:Assigned_property
      ref="id-Assigned_property12758" xsi:nil="true" />
  </Property>
  <Rep>
    <ap233:Property_value_representation
      ref="id-pvrep12758" xsi:nil="true" />
  </Rep>
  <Role />
</ap233:Property_representation>
```

```

<ap233:Assigned_property id="id-Assigned_property12758">
  <Id>12758</Id>
  <Name />
  <Description />
  <Described_element>
    <ap233:System_element_definition ref="id-syseldef12699" xsi:nil="true"
  />
  </Described_element>
</ap233:Assigned_property>

<ap233:Classification_assignment id="id-127588393838">
  <Items>
    <ap233:Assigned_property
      ref="id-Assigned_property12758" xsi:nil="true" />
  </Items>
  <Assigned_class>
    <ap233:External_class ref="id-Unit_cost" xsi:nil="true" />
  </Assigned_class>
</ap233:Classification_assignment>

<ap233:Unit id="id-usd">
  <Name>US Dollars</Name>
  <Si_unit>>false</Si_unit>
</ap233:Unit>

<ap233:Unit id="id-gbp">
  <Name>British Pounds</Name>
  <Si_unit>>false</Si_unit>
</ap233:Unit>

<ap233:Numerical_representation_context
  id="id-Numerical_representation_context-currency">
  <Id>Currency</Id>
  <Kind>Valid World Currencies</Kind>
  <Units>
    <ap233:Unit xsi:nil="true" ref="id-usd" />
    <ap233:Unit xsi:nil="true" ref="id-gbp" />
  </Units>
</ap233:Numerical_representation_context>

```