

OV-3 : Operational Information Exchange Matrix

This document defines the mapping between the DODAF OV-3 Operational Information Exchange Matrix 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.

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1. Introduction

The OV-3 Operational Information Exchange Matrix in the DoDAF Volume II: Product Descriptions document defined OV-3 as follows.

The Operational Information Exchange Matrix details information exchanges and identifies "who exchanges what information, with whom, why the information is necessary, and how the information exchange must occur." There is not a one-to-one mapping of OV-3 information exchanges to OV-2 needlines; rather, many individual information exchanges may be associated with one needline.

Information exchanges express the relationship across the three basic architecture data elements of an OV (operational activities, operational nodes, and information flow) with a focus on the specific aspects of the information flow and the information content. Certain aspects of the information exchange can be crucial to the operational mission and should be tracked as attributes in OV-3. For example, if the subject architecture concerns tactical battlefield targeting, then the timeliness of the enemy target information is a significant attribute of the information exchange.

2. OV-3 Concepts

An Operational Information Exchange Matrix may be used to represent the following concepts.

Information exchange

Information exchange is an act of exchanging information between two distinct operational nodes and the characteristics of the act, including the information element that needs to be exchanged and the attributes associated with the information element (e.g., Scope), as well as attributes associated with the exchange (e.g., Transaction Type). A needline represents one or more information exchanges.

Information element

Information element is a formalized representation of information subject to an operational process (e.g., the information content that is required to be exchanged between nodes). In contrast an information exchange is comprised of the needline, the information element, and other attributes such as Information Assurance attributes. The specific attributes of the information elements included

are dependent on the objectives of the specific architecture effort and include the information scope, accuracy, and language. An information element may be used in one or more information exchanges.

3. OV-3 AP233 Mapping Issues

Warning:

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

This section describes issues in mapping between OV-3 Operational Information Exchange Matrix 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. CADM IER is mapped to AP233 Requirement. IER is a kind of INFO REQ and GUIDANCE but it is not clear that all other kinds of GUIDANCE should be mapped to AP233 Requirement. So, the current mapping may not be applicable in the general case of CADM Guidance and there is not clearly equivalent concept in AP233 as of the time of this document.

4. Mapping OV-3 CADM XML to AP233 XML

This section defines the mapping from the CADM XML representation of OV-3 Operational Information Exchange Matrix 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 implementations.

4.1. OV-3 Operational Information Exchange Matrix

This section describes the mapping for the CADM OV-3 Operational Information Exchange Matrix itself which is an INFORMATION-EXCHANGE-MATRIX categorized as being Operational, rather than as being Systems Data Exchange Matrix..

The OV-3 INFORMATION-EXCHANGE-MATRIX is mapped in the same manner as in the SV-6 mapping except that the CADM INFO_EXCH_MATRX / IEM_TY_CD = 1 to signify an OV-3.

4.2. OV-3 Information Exchange Requirement Mapping

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See Example IER for example CADM XML OV-3 IER data.

The following table documents the CADM IER mapping.

CADM XML Element(s)	AP233 XML Element(s) or Attributes(s)
IER	<p>An AP233 Requirement with related Requirement_version and Requirement_definition classified as being a INFORMATION-EXCHANGE-REQUIREMENT. See AP233 Requirements Management.</p> <p>Many of the CADM IER attributes map to AP233 Requirements in their own right so the IER is actually a collection of requirements created using the AP233 Requirement_collection_relationship where the IER is the Relating_view (i.e. the collection) and the individual requirements are Related_view (i.e. the members).</p> <p>See OV-3 Issues as this mapping to AP233 Requirement may not be appropriate in cases other than for CADM INFORMATION-EXCHANGE-REQUIREMENT.</p>
IER / CSC_ID	See issues in other mappings.
IER / COMM_MED_ID	An assignment of the AP233 representation of the CADM Communication Medium to the AP233 Interface_connection linking the source and destination of the IER.
IER / DES_NODE_2_NODE_ID	The destination end an AP233 Interface_connection (see AP233 Interfaces) as mapped in SV-1 Node Association mapping.
IER / DES_TSK_ID	An assignment of the AP233 representation of the CADM Task to the destination end of the AP233 Interface_connection for the IER.
IER / EXNDLN_REQ_GUID_ID	An AP233 Tracing_relationship between the Requirement_view_definitions representing the CADM IER and the CADM Exchange Needline Requirement. The Relating_view is the IER and the Related_view is the Exchange Needline requirement. The relationship is classified as

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	IER-EXCHANGE-NEEDLINE-TRACE
IER / INFOEXCREQ_GUID_ID	An identifier for the AP233 representation of the CADM IER assigned by the owning organization.
IER / INFO_REQ_GUID_ID	An AP233 <code>Tracing_relationship</code> between the <code>Requirement_view_definitions</code> representing the CADM IER and the CADM Information Requirement. The <code>Relating_view</code> is the IER and the <code>Related_view</code> is the Information Requirement. The relationship is classified as IER-INFORMATION-REQUIREMENT-TRACE
IER / IER_CAUS_A_TRGR_TX	An AP233 <code>Description_text</code> or <code>Expression_assignment</code> depending on whether the text is natural language or in a formal language. The assignment of the <code>Description_text</code> or <code>Expression_assignment</code> to the AP233 Requirement representing the IER is classified as EXCHANGE-CAUSING-EVENT .
IER / IER_CST_FAIL_CD	A classification of the AP233 element representing the CADM IER depending on the following values. <ul style="list-style-type: none"> • when A = MISSION FAILURE, classified as COST-OF-FAILURE-MISSION • when B = TASK FAILURE, classified as COST-OF-FAILURE-TASK • when C = LOSS OF LIFE, classified as COST-OF-FAILURE-LIFE • when D = MINIMAL IMPACT, classified as COST-OF-FAILURE-MINIMAL • when N = NOT SPECIFIED, classified as COST-OF-FAILURE-NOT-SPECIFIED • when X = NOT KNOWN, classified as COST-OF-FAILURE-NOT-KNOWN
IER / IER_EFF_CALDT	See AP233 Dates. The <code>Date_or_date_time_assignment</code> element child <code>Items</code> element refers to the AP233 element representing the CADM IER and the <code>Date_or_date_time_assignment</code> is classified as an Date_actual_effective .
IER / IER_FREQ_HIGH_QY	An AP233 <code>Numerical_item_with_unit</code> child element <code>Value_component</code> as part of an

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	AP233 Assigned_property classified as FREQUENCY HIGH QUANTITY (see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_FREQ_LOW_QY	An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as FREQUENCY LOW QUANTITY (see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_FREQ_QY	An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as FREQUENCY QUANTITY (see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_TM_PER_CD	A classification of the AP233 element representing the CADM IER depending on the following values. 01 = ONE SECOND; 02 = ONE MINUTE; 03 = ONE HOUR; 04 = ONE DAY; 05 = ONE WEEK; 06 = ONE MONTH (30 DAYS); 07 = ONE YEAR (365 DAYS); 08 = MORE THAN ONE YEAR; 09 = EVENT DRIVEN; 10 = AS REQUIRED; 11 = LOCALLY DETERMINED; 98 = NOT SPECIFIED.
IER / IER_GRD_SVC_RT	An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as GRADE-OF-SERVICE RATE (see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_GRAPHIC_PG_QY	An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as GRAPHIC PAGE QUANTITY (see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_IM_PXL_DPTH_QY	An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as IMAGERY PIXEL DEPTH QUANTITY (see AP233 Properties). See mapping for CADM

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	OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_IMAG_PIXEL_QY	An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as IMAGERY PIXEL QUANTITY (see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_NUM_PIX_RES_QY	An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as IMAGERY RESOLUTION DIMENSION (see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_NUM_PIX_FOV_QY	An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as IMAGERY-VIEW-FIELD-DIMENSION (see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_MX_TRAN_ELT_QY	An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as MAXIMUM-TRANSIT-ELAPSED-TIME (see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_MX_USFL_ELT_QY	An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as MAXIMUM-USEFUL-ELAPSED-TIME (see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_BRDCT_FLG_CD	A classification of the AP233 element representing the CADM IER depending on the following values. <ul style="list-style-type: none"> when 1 = TO BE BROADCAST, classified as BROADCAST-YES when 2 = NOT TO BE BROADCAST, classified as BROADCAST-NO

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	<ul style="list-style-type: none"> when 8 = NOT SPECIFIED, classified as BROADCAST-UNSPECIFIED when 9 = NOT KNOWN, classified as BROADCAST-UNKNOWN
IER / IER_MLTCT_FLG_CD	<p>A classification of the AP233 element representing the CADM IER depending on the following values.</p> <ul style="list-style-type: none"> when 1 = TO BE MULTICAST, classified as MULTICAST-YES when 2 = NOT TO BE MULTICAST, classified as MULTICAST-NO when 8 = NOT SPECIFIED, classified as MULTICAST-UNSPECIFIED when 9 = NOT KNOWN, classified as MULTICAST-UNKNOWN
IER / IER_VOCVID_ELT_QY	<p>An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as VOICE-VIDEO ELAPSED-TIME(see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.</p>
IER / IER_MSN_PHASE_TX	<p>An AP233 Description_text assigned to the AP233 representation of the CADM IER as specified in with the assignment classified as MISSION-PHASE-TEXT.</p>
IER / IER_NUM_OBJ_HI_QY	<p>An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as HIGH-COUNT(see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.</p>
IER / IER_NUM_OBJ_LOW_QY	<p>An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as LOW-COUNT(see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.</p>
IER / IER_PERSHABL_CD	<p>A classification of the AP233 element representing the CADM IER depending on the following values.</p> <p>A = 8-24 HOURS; B = 4 -8 HOURS; C = 3 -4 HOURS; D = 2 -3 HOURS; E = 1 -2 HOURS; F = 10 -60 MINUTES; G = 1 -10 MINUTES; H = 25 -59</p>

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	SECONDS; J = 11 -24 SECONDS; K = 5 -10 SECONDS; L = 1 -4 SECONDS; M = LESS THAN 1 SECOND; N = NOT SPECIFIED; S = NOT KNOWN; T = GREATER THAN 360 DAYS; U = 180-360 DAYS; V = 90-180 DAYS; W = 30-90 DAYS; X = 10-30 DAYS; Y = 3-10 DAYS; Z = 1-3 DAYS.
IER / IER_PHYSFRMT_TY_CD	A classification of the AP233 element representing the CADM IER depending on the following values. 01 = AUDIO; 02 = TEXT; 03 = GRAPHIC (TO INCLUDE FACSIMILE); 04 = IMAGERY NOT OTHERWISE SPECIFIED; 05 = IMAGERY, STILL; 06 = IMAGERY, STOP MOTION; 07 = IMAGERY FULL MOTION; 08 = DATA NOT OTHERWISE SPECIFIED; 09 = DATA, ASCII; 10 = DATA, BIT-ORIENTED; 11 = FACE-TO-FACE MEETING; 12 = COURIER; 13 = FILM; 14 = PAPER; 15 = MAGNETIC TAPE; 16 = OPTICAL DISK; 17 = MAGNETIC DISK; 18 = VIDEO (FULL-MOTION VIDEO WITH AUDIO); 19 = VISUAL NOT OTHERWISE SPECIFIED; 98 = NOT SPECIFIED; 99 = NOT KNOWN.
IER / IER_PRCDNCE_CD	A classification of the AP233 element representing the CADM IER depending on the following values. N = NOT SPECIFIED; O = IMMEDIATE; P = PRIORITY; R = ROUTINE; X = NOT KNOWN; Y = FLASH OVERRIDE; Z = FLASH.
IER / IER_PREFRNC_CD	A classification of the AP233 element representing the CADM IER depending on the following values. N = NOT SPECIFIED; O = OTHER; P = PRIMARY; S = SECONDARY; T = TERTIARY; X = NOT KNOWN.
IER / IER_PRD_DTSZ_QY	An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as DATA-SIZE (see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.
IER / IER_PROD_TY_CD	A classification of the AP233 element representing

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	<p>the CADM IER depending on the following values.</p> <p>01 = ARMY COMMAND AND CONTROL SYSTEM (ACCS) PRODUCT; 02 = ELECTRONIC-MAIL (X.400/500) PRODUCT; 03 = FILE TRANSFER PROTOCOL (FTP) PRODUCT; 04 = INTELLIGENCE ELECTRONIC WARFARE COMMUNICATIONS CATALOG(IEW COMCAT) PRODUCT; 05 = INTRAVEHICULAR INTERCHANGE SYSTEM (IVIS) PRODUCT; 06 = US MESSAGE TEXT FORMATTING SYSTEM (USMTF)-DATA PRODUCT; 07 = US MESSAGE TEXT FORMATTING SYSTEM (USMTF)-VOICE PRODUCT; 08 = VARIABLE MESSAGE FORMAT (VMF) PRODUCT; 09 = UNDEFINED PRODUCT; 10 = TACTICAL DIGITAL INFORMATION LINK (TADIL) J PRODUCT; 11 = ALLIED DATA PUBLICATION 3 (ADATP-3) PRODUCT; 98 = NOT SPECIFIED; 99 = NOT KNOWN.</p>
<p>IER / IER_ROLE_CD</p>	<p>A classification of the AP233 element representing the CADM IER depending on the following values.</p> <p>01 = USED FOR SYSTEMS DATA EXCHANGE; 02 = USED FOR ANY EXCHANGE REQUIREMENT NOT OTHERWISE SPECIFIED; 98 = NOT SPECIFIED; 99 = NOT KNOWN.</p>
<p>IER / IER_SPD_SVC_CD</p>	<p>A classification of the AP233 element representing the CADM IER depending on the following values.</p> <p>A = 8-24 HOURS; B = 4 -8 HOURS; C = 3 -4 HOURS; D = 2 -3 HOURS; E = 1 -2 HOURS; F = 10 -60 MINUTES; G = 1 -10 MINUTES; H = 25 -59 SECONDS; J = 11 -24 SECONDS; K = 5 -10 SECONDS; L = 1 -4 SECONDS; M = LESS THAN 1 SECOND; N = NOT SPECIFIED; S = NOT KNOWN; T = MORE THAN 360 DAYS; U = 180-360 DAYS; V = 90-180 DAYS; W = 30-90 DAYS; X = 10-30 DAYS; Y = 3-10 DAYS; Z = 1-3 DAYS.</p>
<p>IER / IER_STA_CD</p>	<p>A classification of the AP233 element representing the CADM IER depending on the following values.</p> <p>AP = APPROVED; AR = ARCHIVED; DP = DISAPPROVED; DR = DRAFT; IN = INTERIM</p>

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	APPROVAL; N = NOT SPECIFIED; PR = PROPOSED; X = NOT KNOWN.
IER / IER_TIMELIN_HI_QY	<p>An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as TIMELINESS-HIGH-QUANTITY(see AP233 Properties).</p> <p>Each unit is is represented as an AP233 Unit as described in AP233 Properties. In the case where the CADM unit is the same as an SI unit, the SI unit is used. The AP233 Unit is linked to the AP233 representation of other CADM concepts related to the IER attribute by an AP233 Assigned_property, Property_representation, Property_value_representation, and Numerical_item_with_unit.</p>
IER / IER_TIMELIN_LOW_QY	<p>An AP233 Numerical_item_with_unit child element Value_component as part of an AP233 Assigned_property classified as TIMELINESS-LOW-QUANTITY(see AP233 Properties). See mapping for CADM OV-3 IER / IER_TIMELIN_HI_QY for details on units.</p>
IER / NA_ID	<p>An AP233 Requirement_assignment to an AP233 Interface_connection (see AP233 Interfaces) as mapped in SV-1 Node Association mapping.</p>
IER / PRIM_TRANS_MATI_ID	<p>An assignment of the AP233 representation of the CADM Primary Transmission MATERIEL-ITEM to the AP233 Interface_connection for the IER. The assignment is classified as Primary-Transmission</p>
IER / PRACTEXREQ_GUID_ID	<p>An AP233 Tracing_relationship between the Requirement_view_definitions representing the CADM IER and the CADM Process Activity Exchange Requirement. The Relating_view is the IER and the Related_view is the Process Activity Exchange Requirement. The relationship is classified as IER-Process-Activity-Exchange-Requirement-TRACE</p>

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IER / SC_CD	Same as all other SC_CD mappings, the assignment of a <code>Security_classification</code> to the AP233 concept representing the specific CADM concept question with child element <code>Security_level</code> .
IER / SRC_NODE_1_NODE_ID	The source end an AP233 <code>Interface_connection</code> (see AP233 Interfaces) as mapped in SV-1 Node Association mapping.
IER / SRC_TSK_ID	An assignment of the AP233 representation of the CADM Task to the source end of the AP233 <code>Interface_connection</code> for the IER. The assignment is classified as Information-Source-Task

Table 1: Within the IER_TBL CADM XML Element

4.3. OV-3 Information Technology Requirement Mapping

See Example IT_REQ for example CADM XML OV-3 data.

The following table documents the CADM Information Technology Requirement mapping.

CADM XML Element(s)	AP233 XML Element(s) or Attributes(s)
IT_REQ	Not mapped explicitly when the IT_REQ is also an IER. When the IT_REQ is not an IER, the maps to an AP233 <code>Requirement</code> with related <code>Requirement_version</code> and <code>Requirement_definition</code> classified as being a INFORMATION-TECHNOLOGY-REQUIREMENT . See AP233 Requirements Management. See OV-3 Issues as this mapping to AP233 <code>Requirement</code> may not be appropriate in cases other than for CADM INFORMATION-TECHNOLOGY-REQUIREMENT .
IT_REQ / EVT_TY_ID	See OV-3 Issues as it's not clear what the relation to CADM Event represents. Maps to an AP233 <code>Event_assignment</code> , or other assignment if appropriate, linking the AP233 representation of the CADM Event to the AP233 <code>Requirement</code> representing the IT_REQ.
IT_REQ / IT_REQ_GUID_ID	An identifier for the AP233 representation of the CADM Information Technology Requirement

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	assigned by the owning organization.
IT_REQ / ITREQ_ALT_ID and ITREQ_ALTSRC_NM	An identifier for the AP233 representation of the CADM Information Technology Requirement assigned by the owning organization and classified as a Alternate-Identifier . The ITREQ_ALTSRC_NM is mapped to the Name of the related AP233 Organization.
IT_REQ / ITREQ_BLOCK_NM	An identifier for the AP233 representation of the CADM Information Technology Requirement assigned by the owning organization and classified as a Name . AP233 Requirement_collection_relationship is used to collect requirements together and Requirement_view_definition of the the CADM Block of requirements is referenced though the Relating_view and Requirement_view_definitions representing the members are referenced through the Related_view.
IT_REQ / ITREQ_CAT_CD	See OV-3 Issues related to the current mapping for 04 = INFORMATION EXCHANGE REQUIREMENT and other kinds of GUIDANCE. A classification of the AP233 element representing the CADM IER depending on the following values. 01 = ACTIVITY MODEL REQUIREMENT; 02 = DATA MODEL REQUIREMENT; 03 = EXCHANGE NEED LINE REQUIREMENT; 04 = INFORMATION EXCHANGE REQUIREMENT; 05 = OPERATIONAL CONCEPT REQUIREMENT; 06 = USAGE REQUIREMENT; 07 = INFORMATION REQUIREMENT; 08 = PROCESS ACTIVITY EXCHANGE REQUIREMENT; 98 = NOT SPECIFIED; 99 = NOT KNOWN.
IT_REQ / ITREQ_DESC_TX	When the CADM IR_REQ is represented by an AP233 Requirement, maps to the String_representation_item Value_component of the AP233 Representation for the AP233 Requirement. The same AP233 Requirement may have more than one AP233 Representation.
IT_REQ / ITREQ_SHRT_NM	An identifier for the AP233 representation of the CADM Information Technology Requirement

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	assigned by the owning organization and classified as a Short-Name .
IT_REQ / ITREQ_CLS_CD	A classification of the AP233 element representing the CADM IER depending on the following values. 01 = DEPLOYMENT; 02 = FORCE STRUCTURE; 03 = MODERNIZATION; 04 = MILITARY OPERATIONS; 05 = READINESS; 06 = SUPPORT; 07 = SUSTAINABILITY; 08 = USAGE REQUIREMENT; 98 = NOT SPECIFIED; 99 = NOT KNOWN.

Table 1: Within the IT_REQ_TBL CADM XML Element

4.4. OV-3 Guidance Mapping

See Example GUIDANCE for example CADM XML OV-3 Guidance data.

The following table documents the CADM Guidance mapping.

CADM XML Element(s)	AP233 XML Element(s) or Attributes(s)
GUIDANCE	<p>The mapping depends on the kind of Guidance denoted using the GUID_CAT_CD as specified below.</p> <ul style="list-style-type: none"> • When the CADM GUIDANCE is also an IT_REQ or an IER, which are mapped to AP233 Requirement as specified in OV-3 IER mapping and OV-3 IT_REQ mapping, the CADM Guidance attributes are mapped to that AP233 Requirement. See OV-3 Issues as this mapping to AP233 Requirement may not be appropriate in other cases of CADM GUIDANCE. • When the CADM GUIDANCE is also a DIRECTED-CONSTRAINT (see SV-8 Directed Constraint Mapping), the CADM Guidance attributes are mapped to the AP233 representation of that constraint. • When the CADM GUIDANCE is also a OPERATIONAL RULE (see OV-6a Guidance mapping), the CADM Guidance attributes are mapped to the AP233 representation of that rule. • When the CADM GUIDANCE is also a TECHNICAL GUIDELINE, the CADM Guidance attributes are mapped to the AP233 representation of that guideline. • When the CADM Guidance is not also another

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	<p>CADM element, then the CADM Guidance maps to an AP233 Document with related version and definition and the classification specified in GUID_CAT_CD is applied to all three AP233 instances.</p>
<p>GUIDANCE / GUID_AUTH_TX</p>	<p>An AP233 <i>Description_text</i> and related assignment to the AP233 representation of the CADM Guidance as specified in with the assignment classified as a AuthorityText.</p>
<p>GUIDANCE / GUID_BGN_CALDTTM</p>	<p>An AP233 <i>Date_or_date_time_assignment</i> as specified in AP233 Dates, classified as an Datetime_actual_begin, containing an <i>Items</i> referring to the AP233 element representing the CADM GUIDANCE and an <i>Assigned_date</i> referring to an AP233 <i>Date_time</i> with <i>Calendar_date</i> and <i>Local_time</i> constituents.</p>
<p>GUIDANCE / GUID_CAT_CD</p>	<ul style="list-style-type: none"> • The following denote that the Guidance is another CADM element and so classification based on the GUID_CAT_CD is not necessary. See the mapping for each element. <ul style="list-style-type: none"> • 11 = OPERATIONAL RULE • 12 = TECHNICAL GUIDELINE • 13 = INFORMATION TECHNOLOGY REQUIREMENT • 24 = DIRECTED CONSTRAINT; • The CADM GUIDANCE concept is mapped into one of the following manners: <ol style="list-style-type: none"> 1. an AP233 Requirement, with related version and definition, and a <i>String_representation_item</i> containing the relevant text related through an AP233 Representation to the definition. See AP233 Requirements. 2. an AP233 Document, with related version and definition, and one or more <i>Text_expression_representation_items</i> containing the relevant text related through an AP233 Representation to the definition. See AP233 Documents. 3. an AP233 <i>Activity_method</i> that is a Typical_activity. See AP233 Activities. 4. an AP233 Risk, as specified in AP233 Risk, with text related via the <i>Description</i> and via AP233 <i>Description_text</i> usage, as specified

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	<p>in AP233 Descriptions.</p> <p>A classification of the AP233 element representing the CADM Guidance depending on the following values, the words not the code. These are cases where the value does not denote another CADM element.</p> <ul style="list-style-type: none">• when 01 = DOCTRINE, maps as AP233 Document classified as DOCTRINE• when 02 = DIRECTIVE, maps as AP233 Document classified as DIRECTIVE• when 03 = MISSION-STATEMENT, maps as AP233 Document classified as MISSION-STATEMENT• when 04 = POLICY, maps as AP233 Document classified as POLICY• when 05 = STATUTE, maps as AP233 Document classified as STATUTE• when 06 = STRATEGY, maps as AP233 Document classified as STRATEGY• when 07 = MANUAL, maps as AP233 Document classified as MANUAL• when 08 = REGULATION, maps as AP233 Document classified as REGULATION• when 09 = PROCEDURE, maps as AP233 Activity_method classified as PROCEDURE• when 10 = OPERATION-ORDER, maps as AP233 Document classified as OPERATION-ORDER• when 14 = GOAL, maps as AP233 Document classified as GOAL• when 15 = VISION, maps as AP233 Document classified as VISION• when 16 = SPECIAL INSTRUCTION, maps as AP233 Document classified as SPECIAL-INSTRUCTION• when 17 = WARNING ORDER, maps as AP233 Document classified as WARNING-ORDER• when 18 = SERVICE SUPPORT ORDER, maps as AP233 Document classified as SERVICE-SUPPORT-ORDER• when 19 = MOVEMENT ORDER, maps as AP233 Document classified as MOVEMENT-ORDER• when 20 = FRAGMENTARY ORDER, maps as AP233 Document classified as FRAGMENTARY-ORDER
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	<ul style="list-style-type: none"> • when 21 = GENERAL INSTRUCTION, maps as AP233 Document classified as GENERAL-INSTRUCTION • when 22 = RISK ASSESSMENT, maps as AP233 Risk classified as RISK-ASSESSMENT • when 23 = UNIT AUTHORIZATION ORDER, maps as AP233 Document classified as UNIT-AUTHORIZATION-ORDER • when 25 = BUSINESS RULE, maps as AP233 Document classified as BUSINESS-RULE • when 26 = OPERATIONAL CONCEPT (E.G., CONCEPT OF OPERATIONS OR CONOP), maps as AP233 Document classified as OPERATIONAL-CONCEPT • when 27 = TACTICS, TECHNIQUES, AND PROCEDURES (TTP), maps as AP233 Document classified as TACTICS-TECHNIQUES-PROCEDURES • when 28 = RULE(S) OF ENGAGEMENT (ROE), maps as AP233 Document classified as RULE-OF-ENGAGEMENT • when 98 = NOT SPECIFIED (THE APPROPRIATE VALUE IS NOT IN THE SET OF SPECIFIED VALUES.), maps as AP233 Document classified as GUIDANCE-CATEGORY-NOT-SPECIFIED • when 99 = NOT KNOWN (IT IS NOT POSSIBLE TO DETERMINE WHICH VALUE OUT OF THE LIST OF VALUES IS MOST APPLICABLE.), maps as AP233 Document classified as GUIDANCE-CATEGORY-NOT-KNOWN
GUIDANCE / GUID_END_CALDTTM	<p>An AP233 <i>Date_or_date_time_assignment</i> as specified in AP233 Dates, classified as an Datetime_actual_end, containing an <i>Items</i> referring to the AP233 element representing the CADM GUIDANCE and an <i>Assigned_date</i> referring to an AP233 <i>Date_time</i> with <i>Calendar_date</i> and <i>Local_time</i> constituents.</p>
GUIDANCE / GUID_FUNC_TY_CD	<p>A classification of the AP233 element representing the CADM Guidance depending on the following values, the words not the code.</p>

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	01 = BUDGET EXHIBIT SUPPORT; 02 = C4 ISR (COMMAND, CONTROL, COMMUNICATION AND COMPUTERS INTELLIGENCE, SURVEILLANCE, RECONNAISSANCE); 03 = CASH MANAGEMENT; 04 = COST; 05 = DEBT MANAGEMENT; 06 = ENVIRONMENTAL GUIDANCE; 07 = EXECUTION; 08 = EXPLOSIVES; 09 = FEE CHARGE; 10 = FINANCIAL; 11 = FUND RESTRICTION; 12 = GENERAL LEDGER ACCOUNT IMPLEMENTATION; 13 = INTEREST; 14 = LEAVE; 15 = MISCELLANEOUS INCOME REPORTING; 16 = OPERATIONAL SUPPORT OTHER THAN C4ISR; 17 = OUTLAY MANAGEMENT; 18 = PAY; 19 = PERSON AUTHORITY; 20 = POSITION; 21 = PROMPT PAY; 22 = WORK MEASUREMENT STANDARD; 98 = NOT SPECIFIED; 99 = NOT KNOWN.
GUIDANCE / GUID_ID	An identifier for the AP233 representation of the CADM Guidance assigned by the owning organization.
GUIDANCE / GUID_NM	An identifier for the AP233 representation of the CADM Guidance assigned by the owning organization and classified as a Name .
GUIDANCE / GUID_SUBJ_TX	An AP233 <i>Description_text</i> and related assignment to the AP233 representation of the CADM Guidance as specified in with the assignment classified as a SubjectText .
GUIDANCE / GUID_SYNOPSIS_TX	An AP233 <i>Description_text</i> and related assignment to the AP233 representation of the CADM Guidance as specified in with the assignment classified as a SynopsisText .
GUIDANCE / GUID_TX	See OV-3 Issues as this mapping to AP233 Requirement may not be appropriate for CADM INFORMATION TECHNOLOGY REQUIREMENT or its subclasses/subtypes as the text for the AP233 Requirement is not represented using an AP233 <i>Description_text</i> . When CADM Guidance is not mapped to an AP233 Requirement, maps to an AP233 <i>Description_text</i> and related assignment to the AP233 representation of the CADM Guidance as

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	specified in with the assignment classified as a GuidanceText .
GUIDANCE / POC_ID	An AP233 Organization_or_person_in_organization_assignment classified as a POINT-OF-CONTACT , linking the AP233 Person representing the CADM Point of Contact and the AP233 element representing the CADM Guidance.

Table 1: Within the GUIDANCE_TBL CADM XML Element

5. Example OV-3 CADM XML Data

This section contains example OV-3 CADM XML data.

5.1. Example INFO_EXCH_MATRX

```

<INFO_EXCH_MATRX>
  <IEM_DOC_ID>326</IEM_DOC_ID>
  <IEM_TY_CD>1</IEM_TY_CD>
</INFO_EXCH_MATRX>
<DOC>
  <DOC_ID>326</DOC_ID>
  <DOC_NM>TRP INFORMATION-EXCHANGE-MATRIX</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>TRPIEMATRIX</DOC_ABBRV_NM>
  <DOC_ARCHPROD_TY_CD>16</DOC_ARCHPROD_TY_CD>
  <DOC_ORIGINATOR_NM>AIP PHASE II TEAM</DOC_ORIGINATOR_NM>
  <DOC_CRTN_CALDT>20031203</DOC_CRTN_CALDT>
  <DOC_DESC_TX>Description of the information exchange matrix for the TRP
  Generation
  architecture.</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_RMK_TX>VALIDATED FOR AIPP PHASE II UNDER OASD(NII)
  GUIDANCE</DOC_RMK_TX>
  <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>21</DOC_TY_CD>
  <DOC_PUB_DT>20031203</DOC_PUB_DT>
</DOC>

```

5.2. Example INFO_EXCH_MATRX_EL

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```
<INFO_EXCH_MATRX_EL>
  <IEM_DOC_ID>326</IEM_DOC_ID>
  <IEM_ELEM_ID>32001</IEM_ELEM_ID>
  <INFOEXCREQ_GUID_ID>24100226</INFOEXCREQ_GUID_ID>
  <INFO_REQ_GUID_ID>24100090</INFO_REQ_GUID_ID>
  <PRACTEXREQ_GUID_ID>24100141</PRACTEXREQ_GUID_ID>
  <PROV_SYS_ID>21050311</PROV_SYS_ID>
  <RECIP_SYS_ID>21050301</RECIP_SYS_ID>
  <SYSA_ID>1001</SYSA_ID>
  <PROV_SWI_MATI_ID>2012242</PROV_SWI_MATI_ID>
  <RECIP_SWI_MATI_ID>2012242</RECIP_SWI_MATI_ID>
  <MSGST_ITSTD_AGR_ID>20003227</MSGST_ITSTD_AGR_ID>
  <IMPL_TF_CD>2</IMPL_TF_CD>
  <TIME_FRAME_PRD_ID>20102341</TIME_FRAME_PRD_ID>
  <COMM_MED_ID>10002</COMM_MED_ID>
  <TECHIF_ID>878615</TECHIF_ID>
  <IEME_USE_CD>2</IEME_USE_CD>
  <IEME_PRIORITY_CD>1</IEME_PRIORITY_CD>
</INFO_EXCH_MATRX_EL>
```

5.3. Example IER

```
<IER>
  <INFOEXCREQ_GUID_ID>24100226</INFOEXCREQ_GUID_ID>
  <INFO_REQ_GUID_ID>24100090</INFO_REQ_GUID_ID>
  <PRIM_TRANS_MATI_ID>2012235</PRIM_TRANS_MATI_ID>
  <PRACTEXREQ_GUID_ID>24100141</PRACTEXREQ_GUID_ID>
  <SC_CD>14</SC_CD>
  <CSC_ID>20000001</CSC_ID>
  <NA_ID>101</NA_ID>
  <COMM_MED_ID>10002</COMM_MED_ID>
  <SRC_NODE_1_NODE_ID>606070</SRC_NODE_1_NODE_ID>
  <SRC_TSK_ID>1000003</SRC_TSK_ID>
  <DES_NODE_2_NODE_ID>606062</DES_NODE_2_NODE_ID>
  <DES_TSK_ID>1000003</DES_TSK_ID>
  <IER_STA_CD>DR</IER_STA_CD>
  <IER_CST_FAIL_CD>B</IER_CST_FAIL_CD>
  <IER_EFF_CALDT>20050101</IER_EFF_CALDT>
  <IER_FREQ_QY>1000</IER_FREQ_QY>
  <IER_GRD_SVC_RT>10000000</IER_GRD_SVC_RT>
  <IER_FREQ_LOW_QY>100</IER_FREQ_LOW_QY>
  <IER_BRDCT_FLG_CD>1</IER_BRDCT_FLG_CD>
  <IER_MLTCT_FLG_CD>8</IER_MLTCT_FLG_CD>
  <IER_NUM_PIX_FOV_QY>100</IER_NUM_PIX_FOV_QY>
  <IER_VOCVID_ELT_QY>360</IER_VOCVID_ELT_QY>
  <IER_GRAPHIC_PG_QY>10</IER_GRAPHIC_PG_QY>
  <IER_IMAG_PIXEL_QY>300000</IER_IMAG_PIXEL_QY>
  <IER_PERSHABL_CD>Z</IER_PERSHABL_CD>
  <IER_PRCDNCE_CD>R</IER_PRCDNCE_CD>
  <IER_IM_PXL_DPTH_QY>8</IER_IM_PXL_DPTH_QY>
  <IER_PRD_DTSZ_QY>300000</IER_PRD_DTSZ_QY>
  <IER_PROD_TY_CD>98</IER_PROD_TY_CD>
  <IER_FREQ_HIGH_QY>5000</IER_FREQ_HIGH_QY>
  <IER_MX_TRAN_ELT_QY>36000</IER_MX_TRAN_ELT_QY>
```

```

<IER_PREFRNC_CD>P</IER_PREFRNC_CD>
<IER_MX_USFL_ELT_QY>7200</IER_MX_USFL_ELT_QY>
<IER_SPD_SVC_CD>E</IER_SPD_SVC_CD>
<IER_TM_PER_CD>3</IER_TM_PER_CD>
<IER_CAUS_A_TRGR_TX>Formal specification is TBD</IER_CAUS_A_TRGR_TX>
<IER_NUM_PIX_RES_QY>144</IER_NUM_PIX_RES_QY>
<IER_NUM_OBJ_LOW_QY>10</IER_NUM_OBJ_LOW_QY>
<IER_MSN_PHASE_TX>Not Applicable</IER_MSN_PHASE_TX>
<IER_PHYSFRMT_TY_CD>8</IER_PHYSFRMT_TY_CD>
<IER_NUM_OBJ_HI_QY>1000</IER_NUM_OBJ_HI_QY>
<IER_TIMELIN_HI_QY>3600</IER_TIMELIN_HI_QY>
<IER_TIMELIN_LOW_QY>600</IER_TIMELIN_LOW_QY>
<IER_ROLE_CD>1</IER_ROLE_CD>
</IER>

```

5.4. Example GUIDANCE

```

<GUIDANCE>
<GUID_ID>24100090</GUID_ID>
<POC_ID>1000049</POC_ID>
<GUID_NM>IR: DoD Directives</GUID_NM>
<GUID_TX>Information Requirement for IE = DoD Directives</GUID_TX>
<GUID_SUBJ_TX>TRP Information Requirement</GUID_SUBJ_TX>
<GUID_CAT_CD>13</GUID_CAT_CD>
<GUID_FUNC_TY_CD>2</GUID_FUNC_TY_CD>
<GUID_AUTH_TX>AIP PHASE II TEAM</GUID_AUTH_TX>
<GUID_BGN_CALDTTM>20031212000000.000</GUID_BGN_CALDTTM>
<GUID_END_CALDTTM>20040730000000.000</GUID_END_CALDTTM>
</GUIDANCE>

```

5.5. Example IT_REQ

```

<IT_REQ>
<IT_REQ_GUID_ID>24100090</IT_REQ_GUID_ID>
<ITREQ_CLS_CD>3</ITREQ_CLS_CD>
<EVT_TY_ID>49</EVT_TY_ID>
<ITREQ_CAT_CD>7</ITREQ_CAT_CD>
<ITREQ_ALT_ID>TRP-24100090</ITREQ_ALT_ID>
<ITREQ_ALTSRC_NM>AIP PHASE II TEAM</ITREQ_ALTSRC_NM>
<ITREQ_DESC_TX>Information Requirement for IE = DoD Directives in support
of Army TRP
Generation</ITREQ_DESC_TX>
<ITREQ_SHRT_NM>IE: DODDIRS</ITREQ_SHRT_NM>
<ITREQ_BLOCK_NM>TRP DOCTRINAL</ITREQ_BLOCK_NM>
</IT_REQ>

```

6. Example OV-5 AP233 XML Data

This section contains example OV-3 AP233 XML data.

6.1. Example Requirement

```

<ap233:Requirement id="id-req12699">

```

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```
<Id>24100226</Id>
</ap233:Requirement>

<ap233:Requirement_version id="id-reqver12699" >
  <Id>1</Id>
  <Of_product>
    <ap233:Requirement ref="id-req12699" xsi:nil="true" />
  </Of_product>
</ap233:Requirement_version>

<ap233:Requirement_view_definition id="id-reqdef1111">
  <Id>24100226-DEFN-1</Id>
  <Name />
  <Defined_version>
    <ap233:Requirement_version ref="id-reqver12699" xsi:nil="true" />
  </Defined_version>
  <Initial_context>
    <ap233:View_definition_context ref="id-ov3" xsi:nil="true" />
  </Initial_context>
</ap233:Requirement_view_definition>
```

6.2. Example Requirement_collection_relationship

```
<ap233:Requirement_view_definition id="id-reqdef1111">
  <Id>24100226-DEFN-1</Id>
  <Defined_version>
    <ap233:Requirement_version ref="id-reqver12699" xsi:nil="true" />
  </Defined_version>
  <Initial_context>
    <ap233:View_definition_context ref="id-ov3" xsi:nil="true" />
  </Initial_context>
</ap233:Requirement_view_definition>

<ap233:Requirement_view_definition id="id-reqdef2222">
  <Id>24100226-IER_FREQ_HIGH_QY-DEFN-1</Id>
  <Defined_version>
    <ap233:Requirement_version ref="id-reqver12699" xsi:nil="true" />
  </Defined_version>
  <Initial_context>
    <ap233:View_definition_context ref="id-ov3" xsi:nil="true" />
  </Initial_context>
</ap233:Requirement_view_definition>

<ap233:Requirement_collection_relationship id="id-reqcol5000">
  <Relating_view>
    <ap233:Requirement_view_definition ref="id-reqdef1111" xsi:nil="true"
  />
  </Relating_view>
  <Related_view>
    <ap233:Requirement_view_definition ref="id-reqdef2222" xsi:nil="true"
  />
  </Related_view>
</ap233:Requirement_collection_relationship>
```

6.3. Example Assigned_property

```

<ap233:Numerical_item_with_unit id="id-niwul2758">
  <Value_component>30</Value_component>
  <Unit>
    <ap233:Unit ref="id-second" 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-time" 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:Requirement_view_definition id="id-reqdef12699" 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-TIMELINESS-HIGH-QUANTITY" xsi:nil="true"
  />
  </Assigned_class>
</ap233:Classification_assignment>

```

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```
<ap233:Unit id="id-second">
  <Name>Second</Name>
  <Si_unit>true</Si_unit>
</ap233:Unit>

<ap233:Unit id="id-minute">
  <Name>Minute</Name>
  <Si_unit>true</Si_unit>
</ap233:Unit>

<ap233:Unit id="id-day">
  <Name>Day</Name>
  <Si_unit>true</Si_unit>
</ap233:Unit>

<ap233:Unit id="id-hour">
  <Name>Hour</Name>
  <Si_unit>true</Si_unit>
</ap233:Unit>

<ap233:Numerical_representation_context
  id="id-Numerical_representation_context-time">
  <Id>Time</Id>
  <Kind>Valid Time Units</Kind>
  <Units>
    <ap233:Unit xsi:nil="true" ref="id-second" />
    <ap233:Unit xsi:nil="true" ref="id-minute" />
    <ap233:Unit xsi:nil="true" ref="id-hour" />
    <ap233:Unit xsi:nil="true" ref="id-day" /> </Units>
</ap233:Numerical_representation_context>
```