

ISO/IEC JTC 1/SC 32 N 1852a

Date: 2009-03-22

REPLACES: --

<p style="text-align: center;">ISO/IEC JTC 1/SC 32</p> <p style="text-align: center;">Data Management and Interchange</p> <p style="text-align: center;">Secretariat: United States of America (ANSI) Administered by Farance Inc. on behalf of ANSI</p>
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DOCUMENT TYPE	Disposition of comments
TITLE	Disposition of comments in 32N1674 Summary of Voting on CD 11179-3 Information technology - Metadata registries (MDR) - Part 3: Registry metamodel and basic attributes 3rd Edition
SOURCE	WG2 - Ray Gates - Project Editor
PROJECT NUMBER	1.32.15.03.03.00
STATUS	Disposition of comments in SoV 32N1674 (comments on CD 11179-3 ballot 32N1667). This accompanies 32N1851 CD2 11179-3 sent to NBs for 3 month letter ballot
REFERENCES	
ACTION ID.	FYI
REQUESTED ACTION	
DUE DATE	
Number of Pages	52
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Resolution of Ballot Comments on SC32 N1667 CD 11179-3 sorted by clause

Seq	MB	Clause No./ Subclause No./Annex	Paragraph/ Figure/Table /Note	Type	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
1.	CA-01	00 All	All	Te	All Editor's Notes should be addressed.	Some are addressed by specific comments below.	Accepted in principle. Detailed proposals are required.
2.	CA-02	00 All	All	Te	All open issues for this project on the WG2 Issues forum should be reviewed, and a consensus reached as to which need to be addressed in this Edition.	Specific proposals will be submitted to the ballot resolution meeting.	Detailed proposals are required.
3.	GB 01	00 All	All	te	<p>There is a major inconsistency in this draft standard that needs to be resolved. In Clause 4.1 it says that the metamodel described in this proposed standard is a conceptual model, so that "there need be no one-to-one match between the attributes in the model and fields, columns, objects, et cetera in a database" and "the metamodel need not be physically implemented as specified". This implies that this metamodel only describes the semantics of the metadata, not the structure of any database implementation or, by extension, the syntax of any 'objects' in that database. Elsewhere, however, there are details of structure and/or syntax that implies that this is not a conceptual metamodel. For example, in Clause 4.7 there is a specification for how a date is to be recorded. This is not conceptual; it is implementation. "12 October 2001", "October 12, 2001" and "2001-10-12" are all physical ways of describing the same conceptual concept - a specific period of 24 hours. Likewise, in Clauses 5 to 10, datatypes are specified for the attributes. Datatypes are not conceptual; they are physical implementation constructs. If the intention is that this is a conceptual model all physical and implementation detail should be removed. It could even be argued that the UML Class Model notation is an inappropriate notation for the specification of a conceptual model as it contains too much physical and implementation detail.</p> <p>There is an argument to be made, however, that it is inappropriate to specify the metamodel as a</p>		<p>Agreed this should be a conceptual model. Clause 4.7 needs to specify Gregorian dates, but not the character representation. Done.</p> <p>UML is considered appropriate for a conceptual model. Check 11404 for language to clarify the use of datatypes. Done. Text added to clause 5.1.</p> <p>Re 4.2 , bullet 3: change to: "provide the specification at a conceptual level to facilitate the sharing...." Done.</p> <p>20944 specifies an API</p> <p>New Study Period to specify Query Language (SC32 N1656)</p>

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					<p>conceptual model. In Clause 4.2 one of the objectives of the metamodel is stated as to "enable the sharing and reuse of the contents of implementations". With a pure conceptual model the semantic understanding of the metadata stored in the registry implementations would be common irrespective of the structure and syntax of the implementations, but to share metadata between implementations it may be necessary to develop software to effect structural and syntactic translations. The only way to guarantee the ability to share metadata between implementations is to mandate structure and syntax in the standard. This probably implies that the specification of the metamodel should be in the form of, for example, SQL scripts to create the tables and all of the associated constraints. Specification as a series of UML Class Models still allows for variations in structure and syntax in implementations.</p> <p>There is a need to clarify the purpose of the metamodel before commenting in detail on the content of the metamodel.</p>		We believe the purpose of the metamodel is clearly stated.
4.	GB 02	00 All	All	ge	All editor's notes must be resolved.		Accepted in principle. Detailed proposals are required. (Same as CA01)
5.	US m-0071	00 All	All	te	When associations are described many times a verb role is used in addition to the noun role. A verb role should always be given in the description	See attachment "Model Sentences Using Role Verbs"	Accepted. Partially done. To be completed for FCD.
6.	US 21	00 All	All	ge	The document is inconsistent in its presentation. Example is clauses 7.2.2.1 vs. 7.2.2.2	Use the clause 7.2.2.1 form rather than the 7.2.2.2 form	Duplicate of US m-0040 Resolved by US m-0040
7.	US 24	00 All	All	te	The text is inconsistent. Example: clause 9.3.2.3, editor's note #131 states the subtypes of Registered_Item have been removed. However, the document does refer to subtypes of Registered_Item as in clause 9.3.2	Maintaining these is required to have consistency with edition 2 of the standard.	duplicate of US m-0030 resolved by US m-0030
8.	US 25	00 All	All	ed	The term "subclass" is used 17 times in the CD The term "sub-class" is used 29 times in the CD	Use the term "subtype" throughout the CD	Duplicate of US m-0010 resolved by US m-0010

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					The term "sub-type" is used 11 times in the CD The term "subtype" is used 5 times in the CD		
9.	US 26	00 All	All	ed	The term "superclass" is used 5 times in the CD The term "super-class" is used 1 time in the CD The term "super-type" is used 3 times in the CD The term "supertype" is used 1 time in the CD	Use the term "supertype" throughout the CD	Duplicate of US m-0020 resolved by US m-0020
10.	US 41	00 All	All	te	A common misunderstanding of the UML notation, among those not deeply familiar with the UML specification, is an assumption that disjointness of classes is implied by default. In fact, the default in UML is that classes are NOT (necessarily) disjoint. This is a source of confusion about the meaning of the UML model for 11179-3.	Insert text in multiple places in the document to clarify this point. First, insert a reminder of this fact about UML into clause 4, along with a note that the 11179-3 text will call out those places in the model which are actually expected to have overlap, i.e., classes which are anticipated to not be disjoint in actual practice. Then add such call-outs to: [1] each of the types of Items (see comment 40), and [2] Relation and Relation_Role (instances of which may, in some implementations, also be Concepts).	DONE. Note added in clause 4.4 7.1.2.1 specifies that Administered_Item and Attached_Item are disjoint subclasses of Registered_Item. 9.3.2.1 specifies that <i>Enumerated_Conceptual_Domain</i> and <i>Described_Conceptual_Domain</i> are overlapping. 9.3.2.5 specifies that <i>Enumerated_Value_Domain</i> and <i>Described_Value_Domain</i> are overlapping.
11.	US 42	00 All	All	te	In the UML 2.0 specification, the definition of "abstract", as used in the phrase "abstract class", is rather awkward. It is defined by clause 7.3.8, at the more general level of a classifier, through a Boolean attribute isAbstract: "If true, the Classifier does not provide a complete declaration and can typically not be instantiated. An abstract classifier is intended to be used by other classifiers (e.g., as the target of general metarelations or generalization relationships)." The contrasting term "concrete" is not explicitly defined.	Insert an explanation of the intent in the 11179-3 spec of marking a class as abstract: to indicate that an exhaustive set of specializations is specified (as, e.g., with Conceptual_Domain and Value_Domain). And remove all uses of the term "concrete", which is in fact the default for all classes not marked as abstract.	Accepted because any class that is not marked abstract is concrete, but UML 2.0 does define 'concrete class', which invalidates the premise of this comment. DONE. Note added in clause 4.4. The term 'concrete' has been kept in a few places where the subclasses are being contrasted with the superclass. E.g. 9.3.2.6 and 9.3.2.8.

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12.	US 44	00 All	All	te	There are some serious concerns about the suitability of UML to its intended use in this standard, which is to specify a <u>conceptual</u> model, which can be understood as specifying an unambiguous set of conformance points, across a diverse range of implementations. While it is recognized that UML is used, as a matter of practice, for very similar purposes in various other communities, the point remains that the UML standard does not provide particular guidance as to the interpretation of a UML model as a conceptual model, vs. as a logical model or a data model. It should also be noted that some standards, most notably SBVR, have taken the approach of making their UML model(s) informative, rather than normative.	One potential remedy is to specify, in this standard, in some detail, how the UML model is to be understood as specifying a set of conformance points; this would appear to be an elegant remedy, if it can be accomplished. Another potential remedy might be to specify that interpretation of the UML should be made according to some additional standard, such as SBVR or ODM. See attachment.	Add figures in new notation as a new Annex. DONE Editor requires text to accompany the figures. The figures need to be revised to reflect changes in the UML model. Annex will be removed for FCD unless a complete proposal is received on the CD2 ballot.
13.	US 50	00 All	All	te	The full model is complex and it is not clear how the model figures/ regions/packages in Part 3 relate to the other parts of 11179.	It may be desirable to break the proposed 11179 Part 3 content into other parts of the multi-part 11179 standard. A 2 nd CD draft of Part 3 resolving the comments on CD 1 should be prepared. At that time a discussion should be held to determine whether and how to assign content to parts. Suggestions are: Part 1 Framework and overview, especially for how parts fit together and for conformance. Part 2 Concept Systems – taxonomies, hierarchical classification schemes, and ontologies. Part 3, Data Semantics and representation (the four corners), Part 4 Terminology Principals for Data, including namespaces, Part 5 Conventions for naming and identification, Part 6, Administration and Registration. The US is willing to provide project editors for the revision of parts 1,2, 4, 5, 6.	No action at this time.
14.	US m-0000	00 All	All	ge	US disapproves the draft for reasons below. Acceptance of these reasons and appropriate changes in the text will change our vote to approval for sending out as a second CD.		See responses to individual comments.
15.	US m-0010	00 All	All	ed	The term “subclass” is used 17 times in the CD The term “sub-class” is used 29 times in the CD The term “sub-type” is used 11 times in the CD The term “subtype” is used 5 times in the CD	Use the term “subtype” throughout the CD	Accepted. DONE
16.	US m-0020	00 All	All	ed	The term “superclass” is used 5 times in the CD The term “super-class” is used 1 time in the CD	Use the term “supertype” throughout the CD	Accepted. DONE

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					The term "super-type" is used 3 times in the CD The term "supertype" is used 1 time in the CD		
17.	US m-0030	00 All	All	te	The text is inconsistent. Example: clause 9.3.2.3, editor's note #131 states the subtypes of Registered_Item have been removed. However, the document does refer to subtypes of Registered_Item as in clause 9.3.2	Maintaining these is required to have consistency with edition 2 of the standard.	Resolved by US 46
18.	US m-0040	00 All	All	ge	The document is inconsistent in its presentation. Example is clauses 7.2.2.1 vs. 7.2.2.2	Use the clause 7.2.2.1 form rather than the 7.2.2.2 form	Accepted. DONE
19.	US m-0050	00 All	All	te	The text is inconsistent. Example: clause 9.3.2.3, editor's note #131 states the subtypes of Registered_Item have been removed. However, the document does refer to subtypes of Registered_Item as in clause 9.3.2	Maintaining these is required to have consistency with edition 2 of the standard.	duplicate of m0030 resolved by m0030
20.	US m-0060	00 All	All	ed	The sequences of subclauses within the higher clause is very random. For example: 6.2.2 Classes in the Designation and Definition region 6.2.2.1 Designatable_Item 6.2.2.2 Context 6.2.2.3 Definition 6.2.2.4 Designation 6.2.2.5 Designation_Space 6.2.2.6 Naming_Convention 6.2.2.7 Namespace	There should be some common pattern to sequencing the subclauses so that the reader has an idea of how to read the standard. Suggestion; use alphabetical sequence if a set of things are being specified.	Elimination of forward references and logical grouping is more important than alphabetical order. Alphabetical order will be used where there is no strong reason for not using it. Insert clause references to aid document navigation. DONE
21.	CA-03	00 Foreword	Ed Note 1	Ge	WG2 needs to determine the future of part 2, and whether there will be a part 7.	The document should not anticipate projects that have not even started. Revert the reference to part 2 to refer to the published edition, and remove the reference to part 7. If by the time this document goes to FDIS there have been changes to the other parts, then the Foreword can be updated at that time.	Accepted DONE
22.	CA-04	00 Introduction	para. 3	Ed	The reference to clause 4 is a carry over from Edition 2 and is no longer correct.	Change 'Clause 4' to 'Clauses 5 through 10', or as appropriate if the clauses get restructured again.	Accepted. DONE
23.	CA-05	00 Introduction	para. 3	Ed	Add a reference to the clause(s) that describe(s) the Basic Attributes.	Change 'This part of ISO/IEC 11179 also describes...' to 'In this part of ISO/IEC 11179, Clause 11 describes...'	Accepted. DONE

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24.	GB 03	00 Introduction		ed	The last paragraph of the Introduction begins "This part of ISO/IEC 11179 is of interest ...". That assertion of universality is probably not justified, so it would probably be more accurate to say something like "is intended to be of interest" or "is addressed to"		Accepted. DONE .
25.	US m-0090	00 Introduction	Paragraph 3	ed	The reference to clause 4 is incorrect. It should be to clauses 4 through 10. "Clause 4 of this part of ISO/IEC 11179 specifies the types of metadata objects that form the structure of a <i>Metadata Registry</i> ."	Change the sentence to: "Clauses 4 through 10 of this part of ISO/IEC 11179 specifies the types of metadata objects that form the structure of a <i>Metadata Registry</i> ."	Resolved by CA-04 - DONE (ref to clause 4 s/b clause 5)
26.	GB 04	01		ed	Some of the elements of clause 1, "Scope", would be better placed elsewhere in the document. For example, (a) the description in 1.2 of things are addressed in other parts of 11179 should probably be in the Introduction. (b) The tutorial elements, such as the first sentence of 1.2, should be eliminated in favour of positive statements about what the part defines.		Accept (a). DONE . (b) accepted in principle but editor needs text to be provided.
27.	US 49	01		te	The scope of the standard does not adequately convey what the standard is intended to cover. The term "Metamodel" may be confusing, in that this is not a "model of models".	Add Put at beginning that this is the schema for a metadata registry. Implementations can be platform independent.	Not accepted. The Introduction states that the structure of a MDR is specified in the form of a conceptual model. It is not a schema.
28.	GB 05	01.2		ed	If a Part 7 is to be produced then Part 7 should be included in the list of other parts of 11179.		Remove all reference to part 7, which project is not currently active. DONE .
29.	CA-06	01.2 Scope	item a)	Ed	The reference to clause 3.3 may need to be changed if the metamodel definitions are relocated.	Editor to revise the reference as appropriate.	Reference has been removed. Done .
30.	CA-07	01.2 Scope	items c) –g)	Ed	The part of this sub-clause from 'Aspects of the registry...' until the end, are not related to the subject of this sub-clause, which is 'Structure of a Metadata registry'	Split this text into a separate sub-clause titled 'Relationship to other parts', and move after 1.3. Renumber 1.4 and the reference to it from 1.1. Add a sentence in 1.1 about this new sub-clause.	Accepted DONE – see also related US comment.
31.	US 48	01.4		te	The applications do not adequately convey the intent of the standard.	We should provide high-level use cases to give a better impression of what the standard is meant to address.	List of applications moved from Scope to Introduction and the list expanded. DONE
32.	GB 08	02		ed	The other parts of 11179 are listed as normative references. Since these references are undated the latest edition of the standard applies. But the		Kept parts 1 and 6 as normative references, moved parts 4 and 5 to the

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					whole of 11179 is being updated, so which editions of the other parts of 11179 does this part reference? And to what extent are they normative? That is, are they essential to the application of this part?		Bibliography, and dropped part 2 which is effectively subsumed within part 3. Still using undated versions, so the most recent should be referenced. Done
33.	US 33	02	reference to 19501:2005	te	The diagrams have been developed in UML 2, not UML 1.4, and the semantic difference between them is highly significant.	Cite the OMG standard for the version of UML which is currently being considered as an update to ISO 19501, rather than the current ISO standard. Update the reference if/when ISO 19501 is updated.	Duplicate of m-0101 Resolved by m-0101.
34.	US m-0101	02		te	ISO/IEC 19501 should not be a normative reference as it forces black diamonds in clause 10. See Attachment "CD 11179-3 Classification" below	Change the ISO/IEC 19501 reference to OMG UML 2.0	Accepted. Done Reference changed to ISO/IEC DIS 19501-1 and DIS 19501-2 UML 2.1.2
35.	CA-08	02 Normative references	ISO 03166	Ed	The reference should be updated to the latest edition.	Change '1997' to '2006'. We have reviewed all references made to the document, and they are still accurate with respect to the latest edition.	Accepted Done
36.	CA-09	02 Normative references	ISO 10241	Ed	Other comments propose adding terms from ISO 10241. If those comments are accepted, then a normative reference to 10241 should be added.	Add a normative reference to ISO 10241 the proposed references are added.	Accepted Done
37.	CA-10	02 Normative references	ISO/IEC 11179 (other parts)	Ed	The references to other parts of 11179 are undated. We should confirm that this is what we want.	If edition 3 of part 3 moves to FDIS ahead of edition 3 of other parts, then those parts should be left undated. However, if edition 3 of another part is close to final when this document goes to FDIS, then those parts should be specified to refer to edition 3.	Accepted No action at this time. Carry forward to next ballot. See also resolution of GB 08
38.	CA-11	02 Normative references	ISO/IEC 11404	Ed	A revised version of 11404 was issued for FDIS ballot on 2007-08-16. The reference should be updated to the latest edition once it is published.	Change '1996' to '2007' Published in December 2007.	Accepted Done
39.	GB 06	03		ed	Clause 3.4 should be added to the introduction.		Accepted, but clause is to be restructured by other comments.
40.	US 12	03			Assure there are definitions for all diagram materials. Cross-check definitions in clause 3 with text in all other clauses. Need consistency and completeness of text in clauses 4 – 11, Clause 3 definitions, and diagrams.	Revise definitions as shown in spreadsheet on Bugzilla issue 248.	Accepted. Done, but with changes from other comments. Definitions should be reviewed. A new version of the spreadsheet will be posted by the editor.

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41.	US 15	03	all	ed	The sequence of notes and sources should be consistent for all definitions	Place the source at the end of the definition, as per ISO 10241. All notes should appear after the source(s).	Duplicate of m-0110. Resolved by m-0110.
42.	US m-0110	03	all	ed	The sequence of notes and sources should be consistent for all definitions	Place source at the end of the definition	Notes that come from the source should precede the source. Notes appear after source if they are added by this standard. Text explaining this should be added, DONE
43.	CA-12	03 Definitions	All	Ge	Several of the terms and definitions specified in ISO/IEC 11179 Edition 2 are used in other International Standards, such as ISO/IEC 15944 and ISO/IEC 19115.	Do not change the meaning of terms that are referenced by other standards.	Accepted in principle. To be judged on a case by case basis. Someone needs to identify the impacted terms.
44.	CA-13	03 Definitions	para 1	Ed	The clause begins with hanging paragraphs, which the JTC1 Directives state should be avoided. Other comments propose to restructure clause 3. Depending on the resolution of those comments, the overview of clause 3 may need revision.	Insert an appropriate sub-clause heading, such as 'Overview', and renumber the following sub-clauses as appropriate, and all references to them. Revise the introductory paragraphs to clause 3 to reflect any changes made to the clause.	Accepted Done
45.	CA-14	03.1.01	ref to 19501	Ed	The reference to ISO/IEC 19501 is incorrect. At FCD stage, the UML specification was known as 19501-1, but when finally published, the part number was dropped.	Drop the part number from the reference to 19501.	Per US m-0101, reference changed to DIS 19501-2 UML 2.1.2 Superstructure Done
46.	CA-15	03.1.02	ref to 19501	Ed	The reference to ISO/IEC 19501 is incorrect. At FCD stage, the UML specification was known as 19501-1, but when finally published, the part number was dropped.	Drop the part number from the reference to 19501.	Per US m-0101, reference changed to DIS 19501-2 UML 2.1.2 Superstructure Done
47.	CA-16	03.1.04	ref to 19501	Ed	The reference to ISO/IEC 19501 is incorrect. At FCD stage, the UML specification was known as 19501-1, but when finally published, the part number was dropped.	Drop the part number from the reference to 19501.	Per US m-0101, reference changed to DIS 19501-2 UML 2.1.2 Superstructure Done
48.	CA-19	03.1.07	ref to 11404	Ed	A revised version of 11404 was issued for FDIS ballot on 2007-08-16. The reference should be updated to the latest edition once it is published. Published December 2007.	Change '1996' to '2007'. Update the reference clause number as appropriate. In the FDIS, it is 3.12.	Accepted Done – now 3.2.7.
49.	CA-17	03.1.08	ref to 19501	Ed	The reference to ISO/IEC 19501 is incorrect. At FCD stage, the UML specification was known as 19501-1, but when finally published, the part number was dropped.	Drop the part number from the reference to 19501.	Per US m-0101, reference changed to DIS 19501-2 UML 2.1.2 Superstructure Done
50.	CA-20	03.1.10	ref to 11404	Ed	A revised version of 11404 was issued for FDIS ballot on 2007-08-16. The reference should be updated to the latest edition once it is published.	Change '1996' to '200n' as appropriate. Update the reference clause number as appropriate. In the FDIS, it is 3.44.	Accepted Done – now 3.2.10

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51.	CA-18	03.1.11	ref to 19501	Ed	The reference to ISO/IEC 19501 is incorrect. At FCD stage, the UML specification was known as 19501-1, but when finally published, the part number was dropped.	Drop the part number from the reference to 19501.	Per US m-0101, reference changed to DIS 19501-2 UML 2.1.2 Superstructure Done
52.	CA-22	03.2.19	Note	Ed	The reference to clause 4 is a carry over from Edition 2 and is no longer correct.	Change 'Clause 4' to 'Clauses 5 through 10', or as appropriate if the clauses get restructured again.	Accepted Done
53.	US m-0120	03.2.19	Note	ed	The reference to clause 4 is incorrect. It should be to clauses 4 through 10. "In all parts of ISO/IEC 11179, this term is applied only to instances of metadata objects described by the metamodel in Clause 4 of ISO/IEC 11179-3."	Change the sentence to: "In all parts of ISO/IEC 11179, this term is applied only to instances of metadata objects described by the metamodel in Clauses 4 through 10 of ISO/IEC 11179-3."	Resolved by CA-22 - DONE (ref to clause 4 s/b clause 5)
54.	CA-23	03.2.20	Note	Ed	The reference to clause 4 is a carry over from Edition 2 and is no longer correct.	Change 'Clause 4' to 'Clauses 5 through 10', or as appropriate if the clauses get restructured again.	Accepted Done
55.	CA-24	03.2.20	Note	Ed	The reference to clause 3.3 may need to be changed if the metamodel definitions are relocated.	Editor to revise the reference as appropriate.	Accepted Done
56.	US m-0130	03.2.20	Note	ed	The reference to clause 4 is incorrect. It should be to clauses 4 through 10. In all parts of ISO/IEC 11179, this term is applied only to metadata objects described by the metamodel in Clause 4 of ISO/IEC 11179-3."	Change the sentence to: In all parts of ISO/IEC 11179, this term is applied only to metadata objects described by the metamodel in Clauses 4 through 10 of ISO/IEC 11179-3."	Resolved by CA-23 - DONE (ref to clause 4 s/b clause 5)
57.	GB 07a	03.2.24		te	These two definitions are inconsistent. 3.2.24 states that a metamodel specifies one or other data models. For consistency 3.2.33 should read "metamodel specifying the data model for a Metadata Registry."		Remove 'data' from 3.2.24. Accept change to 3.2.33, with removal of 'data'. DONE
58.	GB 07b	03.2.33		te	These two definitions are inconsistent. 3.2.24 states that a metamodel specifies one or other data models. For consistency 3.2.33 should read "metamodel specifying the data model for a Metadata Registry."		Remove 'data' from 3.2.24. Accept change to 3.2.33, with removal of 'data'. DONE
59.	CA-25	03.2.36	Note	Ed	In addition to the generic term 'text', the model has a Class 'Text'. The two definitions should cross-reference each other.	Add a Note cross-referencing the definition of the Text class.	Accepted Done
60.	CA-21	03.2.4	definition	Te	The definition of binding ('mapping of one framework or specification to another) effectively states that binding is just a synonym for mapping, but it should be more than that.	Append to the existing definition, the clause: 'allowing data and/or commands to be passed between them'.	Accepted Done
61.	JP 02a	03.2.5		Te	3.2.5 characteristic and 3.3.17 Characteristic are almost redundant. Either of them should be		See response to JP 01, but definition of class should not

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					deleted.		be the same as the definition of the concept.
62.	CA-26	03.3	All	Te	The definitions in sub-clause 3.3 are for objects in the metamodel. Many of these definitions confuse the metadata objects themselves with the concepts they represent. These need separate definitions.	Create separate definitions for the concepts behind the metadata objects, and leave these in clause 3.3. Move the definitions of the metadata objects themselves into the clause where the object is described. Detailed proposals will be submitted to the ballot resolution meeting.	Accepted. Done
63.	JP 01	03.3	Alphabetical list of metadata objects in the metamodel	Ed	All the capital letters of the first character of the terms should be changed to small letters, since what are defined in clause 3 are not the meta-classes named by the terms. For example, 3.3.21 Concept_System set of concepts structured according to the relations among them. [ISO 1087-1] should be 3.3.21 concept system set of concepts structured according to the relations among them. [ISO 1087-1] since this definition is exactly the same as the one in ISO 1087 and not about the (meta) class described in 10.3.2.1, which is about concept system and not about Concept_System .		Definitions of meta-classes will be moved. What's left will conform as requested. Done
64.	US m-0140	03.3	Paragraph 1	ed	The reference to clause 4 is incorrect. It should be to clauses 4 through 10. "This subclause provides definitions for terms which are the names of metadata objects in the metadata model in Clause 4."	Change the sentence to: "This subclause provides definitions for terms which are the names of metadata objects in the metadata model in Clauses 4 through 10."	The subclause is to be eliminated and the definitions moved into the clauses where the objects are specified. Done
65.	US m-0160	03.3			axiom_assertion is referenced in 10.3.2.2 but not defined in clause 3.3		Accepted. Action: The text in Clause 10.3.2.2 was not up to date with the figure. The figure has since been removed. DONE
66.	US m-	03.3			Classification_Scheme is not defined		Accepted. Action: Classification_Scheme

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	0190				Clause 10.1.2.1 uses it		has been subsumed by Concept_System. DONE
67.	US m-0200	03.3			classification_scheme is not defined Clause 10.1.4.3 uses it		Accepted. Action: The association was first renamed to "scheme_of_classification" but has since been subsumed by the concept_containment association of the concept system region. DONE
68.	US m-0210	03.3			The definition of conceptual_domain_description, which appears in Figure 12, is not in clause 3.3	Use either conceptual_domain_description or described_conceptual_domain_description consistently, in both the figures and the text.	Accepted, but the definitions are to be removed from 3.3 to the clauses in which the objects are specified. Used the terms from the figure. Done
69.	US m-0240	03.3			denotation_term is not defined clause 10.3.3.3 uses it		Term no longer used. Ontology region has been consolidated with Concept System. DONE
70.	US m-0250	03.3			denoted_entry_formula is not defined figure 17 uses it		Term no longer used. Ontology region has been consolidated with Concept System. DONE
71.	US m-0260	03.3			Denoted_Ontology_Entry is not defined clause 10.3.2.3 uses it		Term no longer used. Ontology region has been consolidated with Concept System. DONE
72.	US m-0300	03.3			hierarchy_inclusion is not defined figure 16 uses it		Term no longer used in CD2
73.	US m-0320	03.3			Identified_Ontology_Entry is not defined clause 10.3.2.3 uses it		Term no longer used in CD2. Ontology region has been consolidated with Concept System. DONE
74.	US m-0340	03.3			identifier_scope is not defined clause 6.1.3.2 uses it		Per resolution of CA 26, definitions of meta model objects are moved to the clause where the objects are specified. Definition added as: association denoting that a Scoped_Identifier is contained in only one Name_Space . Done

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75.	US m-0350	03.3			irreflexive_indicator is not defined clause 10.2.2.2 uses it		Replaced by Reflexivity attribute, which will be de Done ined in the Binary Relations package.
76.	US m-0400	03.3			Predicate found in figure C2 but not clauses 3 through 10		Figure is out-dated and will be replaced or removed by resolution of m0030. Done
77.	US m-0430	03.3			Reference_Concept found in figure C2 but not clauses 3 through 10		Figure is out-dated and will be replaced or removed by resolution of m0030. Done
78.	US m-0450	03.3			Superunary_Predicate is in figure C2 but not clauses 4 through 10		Figure is out-dated and will be replaced or removed by resolution of m0030. Done
79.	US m-0460	03.3			Unary_Predicate is in figure C2 but not clauses 4 through 10		Figure is out-dated and will be replaced or removed by resolution of m0030. Done
80.	US 27	03.3.002		te	<p>"concept unit of knowledge created by a unique combination of characteristics"</p> <p>What ontological category can a concept represent?</p> <p>ISO 704:2000 says: "For this International Standard, the link between an object and its designation or definition is made through the concept, a higher level of abstraction."</p> <p>This seems to imply that a concept is an abstraction of an object (or set of objects). Is "green" a concept? It is not an object, but it is presumably a unit of knowledge with the characteristic "of the colour between blue and yellow in the spectrum".</p> <p>The definition of data element concept implies the existence of property concepts.</p>	<p>Clarify what ontological categories a concept can represent. Give examples of things that are and are not concepts.</p> <p>Clarify the relationships between concept, property, characteristic, class, and data element concept.</p>	<p>Problem needs to be better explained, and text needs to be provided.</p> <p>Editor suggests this is better handled in a TR than in this standard.</p> <p>US to provide clarification.</p>
81.	US m-0150	03.3.007			Is the definition complete? This is not described in clause 10		Append 'in the Notation of the Ontology' to the definition. Done
82.	CA-27	03.3.011	definition	Ed	The word 'denoting' should not be in bold.	Remove the bold font.	Accepted Done
83.	CA-28	03.3.013	definition	Te	No definition is provided for the term 'base_form'	Provide a definition.	Resolution: the attribute is to be removed, so no longer needs a

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							definition. Done
84.	US m-0170	03.3.013			base-form is not in clauses 4 through 10		Resolution: the attribute is to be removed, so no longer needs a definition. Done
85.	CA-29	03.3.015	ref to 11404	Ed	A revised version of 11404 was issued for FDIS ballot on 2007-08-16. The reference should be updated to the latest edition once it is published.	Change '1996' to '200n' as appropriate. The clause reference is still correct. Also, 'datatype' is a defined term, so should be bold.	Accepted Done
86.	CA-30	03.3.017	definition	Te	The definition provided for the class Characteristic here is the same as for the generic concept 'characteristic' which is already defined in 3.2.5. The class 'Characteristic' represents the concept 'characteristic' in the model. The definition of the class should be distinct from the underlying concept.	See generic comment on clause 3.3 above.	3.3.17 has been removed. Done
87.	JP 02b	03.3.017		Te	3.2.5 characteristic and 3.3.17 Characteristic are almost redundant. Either of them should be deleted.		See response to JP 01, but definition of class should not be the same as the definition of the concept.
88.	CA-31	03.3.019	definition	Ed	The word 'denoting' should not be in bold.	Remove the bold font.	Accepted, but definition reworded by responses to issue 248 Done
89.	US m-0180	03.3.019			10.1.2.1 uses the term "item classification" instead of "Classification"		Change text in 10.1.2.1 Done
90.	CA-32	03.3.022	definition	Ed	The word 'denoting' should not be in bold.	Remove the bold font.	Accepted Done
91.	CA-33	03.3.032	definition	Ed	Most of the definitions of associations state that the association 'denotes' something. This definition states that the association 'records' something. We should use consistent terminology unless there is a good reason to be different, in which case the rationale for the difference should be explained.	Change 'recording' to 'denoting'.	Accepted Done
92.	CA-34	03.3.033	definition	Ed	Most of the definitions of associations state that the association 'denotes' something. This definition states that the association 'records' something. We should use consistent terminology unless there is a good reason to be different, in which case the rationale for the difference should be explained.	Change 'recording' to 'denoting'.	Accepted Done
93.	CA-35	03.3.034	definition	Ed	Most of the definitions of associations state that the association 'denotes' something. This definition states that the association 'records' something. We should use consistent terminology unless there is a good reason to be different, in which case the rationale for the difference should be explained.	Change 'recording' to 'denoting'.	Accepted Done

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94.	US m-0220	03.3.036			coordinate_indicator 9.3.2.11 uses the term "coordinate" instead of "coordinate_indicator"		Accepted. Action: Ray (change text in 9.3.2.11) Done
95.	CA-36	03.3.038	definition	Te	Per Editor's Note #14, the definition of Data Element should be reviewed to see if it can be improved.	None provided.	Proposal required.
96.	US 28	03.3.039 40		te	"Data Element Concept DEC concept for which the definition, identification and Conceptual Domain are specified independently of any particular representation" A DEC is not a concept, it is the specification of a concept.	Change to: "specification of a concept independent of any particular representation"	Use Edition 2 definition, prefixed by specification of. Add a note about the equivalence of data elements derived from a common data element concept. Need to differentiate definition of the underlying concept from the metamodel construct. Done
97.	US 29	03.3.039 40		te	"NOTE 2 A Data Element is a representation of a Data Element Concept." A DE is not a representation of a DEC. It is the specification of the representation of something (a property?).		Need to differentiate definition of the underlying concept from the metamodel construct. Not done. More detailed proposal required that reflects similar changes throughout the document.
98.	CA-37	03.3.040	definition	Ed	The word 'denoting' should not be in bold.	Remove the bold font.	Accepted Done
99.	CA-38	03.3.041	definition	Ed	The word 'denoting' should not be in bold.	Remove the bold font.	Accepted Done
100.	CA-39	03.3.042	definition	Ed	The word 'denoting' should not be in bold.	Remove the bold font.	Accepted Done
101.	CA-40	03.3.044	definition	Ed	The word 'denoting' should not be in bold.	Remove the bold font.	Accepted Done
102.	CA-41	03.3.046	definition	Ed	The word 'denoting' should not be in bold.	Remove the bold font.	Accepted Done
103.	WG2 001	03.3.048		Ed	The reference to 11404 should be updated to the 2007 edition	Change the reference to: [ISO/IEC 11404:2007, 3.12]	Accepted. Done

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104.	US m-0230	03.3.056			definition_language 6.2.2.3 uses "language" not "definition_language"		Accepted. change text in 6.2.2.3 Done
105.	CA-42	03.3.070	term	Te	Per Editor's note 85, the class 'Designatable_Item' no longer serves a useful purpose, and should be replaced by Identified_Item.	Delete the term Designatable_Item.	Not Accepted
106.	CA-43	03.3.073	definition	Ed	Per Editor's Note #17, the word 'used' does not seem appropriate in this context.	Changed 'used' to 'expressed'.	Accepted. Done
107.	US m-0270	03.3.075			Definition does not match clause 6.2.2.5 which states "Designation_Space is a Namespace that assigns Signs to Designatable_Items."		Revise definition in 3.3.75 Action: Delete term and text in 6.2.2.5--see Issue 254. Done
108.	US m-0280	03.3.082			9.4.2.4 uses the term "data_element_example_item" instead of "example_item". 9.4.2.4 also uses "example_item".		Resolved by CA 26 which removes the term from clause 3.3. Done
109.	CA-44	03.3.086	definition	Te	A definition is required for the term 'external_form'	None provided.	Resolution: the attribute is to be removed, so no longer needs a definition. Done
110.	US m-0290	03.3.086			external_form not found in clauses 4 through 10		Used in Fig 17. Editor requires text for the definition. Action: has been removed from Fig. 17; replaced by full_expansion attribute inherited from Scoped_Identifier (6.1.2.4), as defined in revised spreadsheet Done
111.	CA-45	03.3.087	definition	Te	Per Editor's Note #22, the definition is too restrictive to a classification scheme based on concepts, and does not include classification schemes where the nodes do not represent concepts.	Replace 'characteristics,' by 'criteria, such as characteristic'	Accepted. Done
112.	US m-0310	03.3.087			the definition is too general. See ISO/IEC 2382-17 & -34		Editor requests text. Action: Ask Doug to clarify what to use from ISO 2382.
113.	US m-0330	03.3.094			The definition is for Identified_Item. The attribute is for Scoped_Identifier as seen in fig4		Modify definition to reference a specified scope Done
114.	US m-0360	03.3.108			link_end_role was not found in clauses 4 through 11		It is in Fig 9. Add to 8.1.3.1 Done
115.	US	03.3.116	and 6.1.2.3	te	The definition and model for Namespace both disallow	Change the "or" in the definition to "and", and	Not accepted. We need a

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	47a				a Namespace containing both Designations and Identifications. Concepts are objects, therefore they may have both Designations and Identifications. It may be useful to manage both within a single Namespace.	reformulate the model accordingly.	complete proposal to evaluate this. There could be a large impact to the document. Action: Figures have been updated in response to Issue 254. Text to be adjusted by editor?
116.	US m-0370	03.3.116			The definition and 6.1.2.3 differ in point of view A Namespace is a scoping construct used to partition the set of designations or identifiers used in a metadata registry.	Change the definition to "set of designations or identifications".	Accepted. Done
117.	US m-0380	03.3.120			The definition and clause 5.1.8 differ on the notion. 5.1.8 states Notation denotes a notation used by a concept system. Examples of such notations include XCL Common Logic (ISO 24707) or OWL-DL XML notation.	Change the text of clause 5.1.8 to agree with the definition.	Accepted. Done
118.	JP 03	03.3.121	Object Class	Te	The definition of Object_Class seems substantially changed from ed2. Unnecessary change should be avoided since the standards should be upward compatible as much as possible. Even if necessary, a new term should be introduced since they are substantially different.		Accepted. Revert to Edition 2 definition. If a change is required, rationale is required. DONE
119.	CA-46	03.3.131	term	Te	In 3.3.131, the term is spelled out in full as 'organization_part_identifier_source', but in clause 7.2 it is abbreviated as OPI_source.	Pick one term or the other and use it consistently.	Use OPI_Source. Done
120.	US m-0390	03.3.131			organization_part_identifier_source not found in clauses 4 through 10		Rename to OPI_source Action: done in definition spreadsheet.
121.	CA-47	03.3.141	term definition &	Te	Per Editor's Note #30, preferred_definition_indicator should be replaced by 'definition_acceptability_rating'	definition_acceptability_rating rating of the acceptability of the definition in the specified context. Allowed ratings are: preferred, admitted, deprecated, obsolete, superseded.	Accepted. Ensure constraint on having only one preferred definition. Reference ISO 10241. Done
122.	CA-47	03.3.142	term definition &	Te	Per Editor's Note #32, preferred_designation_indicator should be replaced by 'designation_acceptability_rating'	designation_acceptability_rating rating of the acceptability of the designation in the specified context. Allowed ratings are: preferred, admitted, deprecated, obsolete, superseded.	Accepted. Ensure constraint on having only one preferred designation. Reference ISO 10241. Done
123.	CA-	03.3.143	term	Te	In 3.3.143, the term is abbreviated as 'ra_identifier' but	Pick one term or the other and use it consistently.	Use

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	49				in clause 7.1 it is spelled out as 'registration_authority_identifier'		registration_authority_identifier Done
124.	US m-0410	03.3.143			ra_identifier is not found in clauses 4 through 10		rename to registration_authority_identifier Action: as noted in spreadsheet, above resolution should be revisited. As noted by Doug Mann in the definition spreadsheet, "[DM 20080214] changed term so attribute name and class name differ. NOTE draft resolution CA49 must be revisited. [DM 20080215] definition suggested for review & added note." Change text in Clause 7.1 to be "ra_identifier". Note: figures are correct, text should reflect figures. Done
125.	US m-0420	03.3.144			7.1.2.2 uses "administration record" instead of "record"		Accepted Action: none (mooted by resolution of US comment m-0820)
126.	CA-50	03.3.154	term	Te	The CD has replaced the term 'country identifier' by 'region identifier' on the grounds that we need to refer to territories which are not countries. However, it has been pointed out that the term 'region identifier' is potentially confusing since we also use the term 'identification region', which means something totally different. We need to find a better term.	Proposal: replace 'region identifier' by 'geopolitical territory identifier'	Accepted, but add note that this equates to region identifier in ITEF RFC. Check meaning of 'geopolitical' - does this include continents? Not done - needs further discussion.
127.	US m-0440	03.3.164			Definition fails rules for definitions. 1. Intensional definitions shall indicate the superordinate concept, either immediately above or at a higher level, followed by the characteristic(s) that distinguish the concept from other concepts. [ISO 704 clause 6.2.1] How can a relation be a type of a n-ary relation? 2. The form of a definition shall be such that it can replace the term in context. [ISO/IEC Directives Part 2		Accepted. Editor needs revised text. Action: still awaiting input from TC37. Not done

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					clause D.1.5.3]		
128.	CA-51	03.3.193	Note 2	Ed	There are two periods at the end of the sentence.	Remove the duplicate period.	Accepted Done
129.	CA-52	03.4.x	OWL	Ed	Add an entry for OWL to the list of abbreviations (used in 5.1.8)	OWL – Web Ontology Language	Accepted Done
130.	CA-53	03.4.x	OWL-DL	Ed	Add an entry for OWL-DL to the list of abbreviations (used in 5.1.8)	OWL-DL – OWL Description Logic	Accepted Done
131.	CA-54	03.4.x	UPU	Ed	Add an entry for UPU to the list of abbreviations (used in 5.1.11)	UPU – Universal Postal Union	Accepted Done
132.	CA-55	03.4.x	XCL	Ed	Add an entry for XCL to the list of abbreviations (used in 5.1.8)	XCL –eXtended Common Logic markup language	Accepted Done
133.	US 43	04 thru 10		te	In proposed Annex AAA, a decision table is used to formalize the meaning of various types to items. This representation is very helpful, and greatly supplements both the textual and UML descriptions of these types. Decision tables like this should be inserted into the main body of the standard.	Insert the decision table, and accompanying text, from proposed Annex AAA, into clause 4.5. Also insert decision tables (and accompanying text) for, at least, [1] types of relations and [2] types of namespaces.	Accepted. Table revised to reflect other changes to the text inserted in clause 4.5. Detailed proposals needed for any other tables to be created.
134.	GB 01b	04.2	Bullet 3	Ed	Re 4.2 , bullet 3:	change to: "provide the specification at a conceptual level to facilitate the sharing...."	Accepted DONE
135.	GB 09	04.3	Editor's Note #46	ge	The editor proposes using a consistent approach to the textual descriptions of the model. This is appropriate. The editor then goes on to say that the text should be as easy to read as possible while still being accurate. Providing an unambiguous definition is more important than 'reader friendliness'. Is there a case for using a formal language for expressing the model? The chosen language should be appropriate for the role of the model (conceptual model or implementation model). In the latter case OCL could be an appropriate choice.		Agree with need for 'unambiguous'. We do not want a formal language spec in place of English text, but could optionally add other representations as Annexes, if they are provided.
136.	US m-0470	04.3.1	Paragraph 2	ed	"These terms are defined in 3.1, and their use is described in Annex B." is unclear and the reference to annex B is incorrect	Should this sentence be deleted?	Review wording and remove reference to Annex B. Done.
137.	US m-0480	04.3.1	Editor's note 45	te	The clause 3.3 definitions should not be removed from clause 3 unless that terms, definitions, notes, and sources are placed in one place such as a table in a		Retain the definitions of the underlying concepts in clause 3, but move the descriptions of the

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					normative annex.		classes to later clauses. Done
138.	CA-56	04.3.2	Bullet 1	Te	The text states that the classes in the basic package are used by other classes. This should be 'other packages'.	Change the last word from 'classes' to 'packages'.	Accepted Done
139.	CA-57	04.3.4	Notation	Te	Add more information on notational conventions used, especially the use of bold and <i>italic</i> fonts.		Accepted. Not yet done.
140.	US m-0490	04.4	Note	ed	"ISO/IEC 10027:1990 IRDS Framework explains the concepts of different levels of modelling." A better explanation is in ISO/IEC TR 10032 Clause 5.	Change the note to: "ISO/IEC TR 10032:2003 Reference model for data management explains the concepts of different levels of modelling." "ISO/IEC 10027:1990 IRDS Framework also explains the concepts of different levels of modelling."	Accepted. It had been suggested we add a reference to 19502 clause 2.2 (MOF) as well, but since we are using UML 2, we should reference MOF 2, and MOF 2 appear to no longer have any reference to levels of modelling. Rephrased as: "ISO/IEC TR 10032:2003 Reference model for data management explains the concepts of different levels of modelling, as does ISO/IEC 10027:1990 IRDS Framework. Done
141.	CA-58	04.5	Figure 2	Te	Per Editor's note 85, the class 'Designatable_Item' no longer serves a useful purpose.	Remove Designatable_Item from Figure 2, and any other figure it appears in. Review occurrences in the text either remove text which describes Designatable_Item, or replace it by Identified_Item, as appropriate.	Not Accepted.
142.	CA-59	04.5	All	Te	Per Editor's Note #47, we need to provide a mechanism for specifying types of registered items, both those specified in the standard, and those specified as extensions to the standard.	None provided.	Clarified the text. Done
143.	US 40a	04.5			See US 40b under clause 06.2.2.1	See US 40b under clause 06.2.2.1	Done
144.	US m-0510	04.5	Paragraph 1 sentence 3	te	The following sentence places an unworkable constraint on an implementation. The constrain is: "Any <i>metadata item</i> entered into a <i>metadata registry</i> shall be immediately at least an <i>Identified_Item</i> , so the item may be referenced, and must become a <i>Designatable_Item</i> in order to be named and/or defined."	Only the items from Edition 2 that are subtypes of Administered_Item or those specifically listed in Edition 3 should have a constraint like this.	Accepted. Change text in 4.5. Done

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					<p style="color: red; margin-left: 20px;">COMMENT:</p> <p>IF</p> <ul style="list-style-type: none"> 1) All things listed in clause 3.3 are metadata objects [these are classes, associations, association classes, attributes, composite attributes and composite datatypes] and 2) All instances of metadata objects are metadata items. and 3) Identified_Items are only these metadata items that are 1) identified and 2) in a Metadata Registry. and 4) Any metadata item entered into a metadata registry shall be immediately at least an Identified_Item and 5) Every Identified_Item must have a Scoped_Identifier that is in one and only one Identifier_Space <p>THEN it is implied that</p> <ul style="list-style-type: none"> 1) every instance of a class that is entered into a metadata registry must be an Identified_Item because it is "entered into a metadata registry" [Example: every Value_Domain instance must have a Scoped_Identifier instance] [Example: every Administration_Record instance must have a Scoped_Identifier instance] and 2) every instance of an attribute that is entered into a metadata registry must be an Identified_Item because it is "entered into a metadata registry" [Example: if that Value_Domain instance has an value_domain_format attribute, that value_domain_format instance must have a Scoped_Identifier instance] and 3) every instance of an association that is entered into a metadata registry must be an Identified_Item 		

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					<p>because it is "entered into a metadata registry" [Example: that Value_Domain instance requires the existence of an instance of a value_domain_meaning association and that value_domain_meaning instance must have a Scoped_Identifier instance] Clause 4.1 states that an implementation does not need to: "there need be no one-to-one match between the attributes in the model and fields, columns, objects, et cetera in a database." Requiring a Scoped_Identifier instance for every instance of a class instance, attribute instance, association instance, etc. is totally unworkable and affordable.</p>		
145.	US m-0511	04.5		te	See Annex to ballot comments re types of items.	None provided with comment.	No action required.
146.	US m-0530	04.5	Editor's note 46		The Edition 2 subtypes of Administered_Item must remain as subtypes in Edition 3. These may be as subtypes of Registered_Item instead of Administered_Item.		Resolved by resolution of US 46.
147.	US m-0540 a	04.5		te	Clause 4.5 paragraph 1 states "Annex C shows an example of how the various metadata objects specified by this standard could be sub-typed from Registered_Item."	COMMENT: Note use of "could be" which would be an extension	Resolved by resolution of US 46.
148.	US m-0550	04.5		te	See Annex to ballot comments.		Resolved by resolution of US 46.
149.	US m-0540 b	04.6		te	<p>CONFORMANCE problem</p> <p>Clause 4.6 states "It is not expected that this metamodel will completely accommodate all users. Particular sectors, such as document management, scientific data, statistical data, require metadata attributes not addressed in this standard. Such extensions shall be considered conformant if they do not violate any of the rules inherent in the structure and content as specified by the metamodel in this standard. Classes, relationships, and attributes may be added to this conceptual data model." "Implementers of this standard may include extensions as part of an implementation, and/or they may provide facilities to allow a registry user to define their own</p>	<p>It is the implementation that is or is not conformant, not the extension.</p> <p>Add more text on use of Slots.</p> <p>Add more text on extensions.</p>	<p>Text reworded. Done.</p> <p>Added xref to clause 6. Done.</p> <p>More detail to be added there – see US m-0540c.</p>

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					<p>extensions. This standard provide <i>Slots</i> (see 6.1.2.5) as a mechanism to extend metadata items with custom attributes."</p> <p>COMMENT: Note use "conformant if they do not violate any of the rules inherent in the structure and content as specified by the metamodel"</p> <p>COMMENT: Will users actually understand that a slots extend metadata items (note instances not classes)?</p> <p>COMMENT: Note use "Classes, relationships, and attributes may be added to this conceptual data model.". This does not say "changed"</p>		
150.	CA-60	04.6	All	Te	Per Editor's Note #48, we need to provide a mechanism to extend the model with new classes and associations. This mechanism should be tied to the specification of metadata modules as in ISO/IEC 19773.	None provided.	For CD2, resolved by US m-0540b and c. Proposal required as CD2 ballot comment.
151.	CA-61	04.6	All	Te	Many of the extensions that we need to support (e.g. records, database tables, XML structures) are already specified by CWM which is also under ballot as a PAS submission to ISO. Whatever mechanism we provide to extend the model should specifically support adding CWM packages to an 11179 metadata registry, showing how CWM data resources relate to 11179 model elements.	None provided.	Proposal required as CD2 ballot comment, perhaps an Annex showing how to adapt a CWM package to 11179-3.
152.	US m-0560	04.6	Paragraph 2	te	This needs more detail. An informative annex is needed.	Add an informative annex detailing how slots can expand and modify Identified_Items. In particular 1) instances of classes such as Data_Element, 2) attributes such as contact_mail_address, and 3) associations such as submission.	Example added in 6.1.2.4. Done. If more is needed, a detailed proposal should be submitted.
153.	CA-62	04.7	All	Te	Per Editor's Note #49, we need to support Date-Time datatypes, not just Date.	None provided.	Support both Date and Datetime and use each as appropriate. Done .
154.	GB-01 (copy)	04.7	All	Te	See GB01 under clause 00-A;;		Agreed this should be a conceptual model. Clause 4.7 needs to specify Gregorian dates, but not the character representation. Done.
155.	CA-63	05 thru 10	All	Ed	Clauses 5 through 10 use a variety of textual styles when describing the model. In particular, sometimes the text has been generated directly using the associations and roles from the model. This structure	Use a consistent style, and preferably a more natural English text, rather than a strict regurgitation of the UML into English.	Accepted. Done.

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					is overly formal and difficult to read.		
156.	CA-64	05 thru 10	All	Ed	Where the attributes of the model are specified in Clauses 5 through 10, we should include all relevant basic meta attributes in the specification, such as used in Annex D. Currently the text lists only Attribute Name, Allowed Occurrence and Datatype. We need to add at least Definition, and where applicable Conditions and other optional meta attributes.	Add Definition for all Attributes. Rename 'Allowed Occurrences' to 'Obligation'. Add other meta attributes as applicable.	Accepted. Done . Action: Add Definition for all Attributes. In Annex D, we use 'Obligation' for 'Mandatory', 'Optional' and 'Conditional' only. Use Multiplicity for consistency with 19763.
157.	US m-0570	05.1		ed	Registration_Authority_Identifier is fully specified in and extracted from ISO/IEC 6523-1. It is not a ISO/IEC 11179 creation. It should be a common datatype. Move Registration_Authority_Identifier from Clause 7.2.2.2 to Clause 5.1 as a common datatype.	Move Registration_Authority_Identifier from Clause 7.2.2.2 into Clause 5.1 as Clause 5.1.18 another common datatype.	Accepted. Action: figures have been updated; DONE text to be moved by editor DONE
158.	US m-0590	05.1.12		te	The class Reference document is not defined or described. Its attributes are listed but not defined		Accepted . DONE
159.	US 03	05.1.12 – Reference_Document	Figure 3	te	Need useful attribute for on-line access to reference documents.	Add reference_document_url attribute to Reference_Document; cardinality [0..1]	Accepted. Action: Figures have been updated. Editor to fill in text DONE
160.	GB 10	05.1.14		te	"Character] string is a family of datatypes which represent strings of symbols from standard character-sets. The syntax and semantics of the String datatype are as defined in ISO/IEC 11404:1996 10.1.5 Character String." While this refers to "standard character-sets", there is no reference for the standard for character sets: ISO/IEC 10646:2003, Information technology — Universal Multi-Octet Coded Character Set (UCS), nor any attempt to address the consequences of supporting multiple character sets.		Look at a definition of string from 10646 and new edn of 11404. Consider 'sequence of characters' Character sets are representational and do not belong in a conceptual model. Detailed proposal required.

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161.	US m-0600	05.1.17		te	<p>VALUE problem</p> <p>1.1.1 “5.1.17 Value</p> <p>A <i>Value</i> is a set of values that all have the same meaning, but may have different representations and different datatypes that are dependent upon the context of use. Value represents a datatype that conforms to the semantics of the contextualized-value portion “multidata” datatype as described in 19773-03. A <i>Value</i> is a list of <i>Contextualized-Values</i>, each of which is a combination of “context-designation” that determines both the value space and the operation set of the actual value and an octet string and that represents the value itself.</p> <p>See: [ISO/IEC 11404:1996 10.1.9 Private] for further explanation.”</p> <p>QUESTION: If “A <i>Value</i> is a set of values that all have the same meaning”, does that mean “MI”, “MC”, “Mich.”, “26”, “US26”, and “US-MI” are one value because they have the same meaning?</p> <p>QUESTION: What does ISO/IEC 11404 Clause 10.1.19 have to do with the text for “Value”?</p> <p>“10.1.9 Private</p> <p>Description: A Private datatype represents an application-defined value-space and operation set which are intentionally concealed from certain processing entities.</p> <p>Declaration: type private(length: NaturalNumber) = new array (1.. length) of (bit);</p> <p>Parametric Values: <i>Length</i> shall have a positive integer value.</p> <p>Values: application-defined.</p> <p>Properties: unordered, exact, non-numeric.</p> <p>Operations: none.</p> <p>NOTES</p> <ol style="list-style-type: none"> 1. There is no denotation for a value of a Private datatype. 2. The purpose of the Private datatype is to provide a means by which: <ol style="list-style-type: none"> a) an object of a non-standard datatype, having a complex internal structure, can be passed between Page 25 of 52 Page 25 of 52 understand the type through a standard-conforming service without the service having to interpret the internal structure. 		<p>Proposal required.</p> <p>Action: [KDK] I submit that a big part of the problem with this clause stems from an incorrect definition in clause 3.3.193, which is actually defining a Value_Meaning, not a Value. New text cannot be generated for 5.1.17 until there is agreement on a definition in clause 3. Note that no definition for the term value is provided in 11404:2007. The definition proposed in the new working draft for 11179-4 also defines values as kinds of concepts, which is inconsistent with the role value is playing in the part 3 metamodel. In the generalization relationship asserted in the WD for part 4 between Designation and Permissible_Value, clearly the component correspondences would match Concept or Designatable_Item up with Value_Meaning, and match Value up with Sign.</p>

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162.	CA-65	05.1.3	All	Te	Per Editor's Note #50, the Contact class should be reconciled with that specified in ISO/IEC 19773.	None provided.	The only differences are deliberate. 11179-3 omits event data, and adds email address. No action required.
163.	US m-0580	05.1.5		te	<p>Designation_Space problem</p> <p>"5.1.5 Individual <i>Individual</i> is a single human being. Every <i>Individual</i> shall have exactly one <i>name</i> of type <i>Sign</i>. A <i>name</i> is a <i>Sign</i> that uniquely identifies the <i>Individual</i> within the context of a <i>Designation_Space</i>."</p> <p>"5.1.9 Organization <i>Organization</i> is a unique framework of authority within which <i>individuals</i> act, or are designated to act, towards some purpose. Every <i>Organization</i> shall have exactly one <i>name</i> of type <i>Sign</i>."</p> <p>QUESTION: Why must a name of an individual be unique in a Designation_Space? QUESTION: Why must a name of an individual be unique? QUESTION: Why must a name of an individual be in a Designation_Space? QUESTION: Why are names of Individuals so controlled but names of Organizations are not? Remember that</p> <ol style="list-style-type: none"> 1. a Designation_Space is Namespace 2. a Designation-Space includes Designations not names <p>Propose the second sentence of 5.1.5 read "A <i>name</i> is a <i>Sign</i> that identifies the <i>Individual</i>."</p>	Propose the second sentence of 5.1.5 read "A <i>name</i> is a <i>Sign</i> that identifies the <i>Individual</i> ."	Accepted. Done
164.	CA-66	05.1.8	Line 2	Ed	The reference to ISO 24707 s/b to ISO/IEC 24707.	Change ISO to ISO/IEC.	Accepted. Done
165.	US m-0610	06.1.2.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2		Accepted. Done
166.	US 16	06.1.2.3	Next to last sentence	te	The text states "The <i>mandatory_naming_convention_indicator</i> is a <i>Boolean</i> that determines whether or not all <i>Designations</i> in a <i>Designation_Space</i> have to conform	Rephrase to "The <i>mandatory_naming_convention_indicator</i> is a <i>Boolean</i> that determines whether or not all <i>Designations</i> in a <i>Designation_Space</i> have to	Duplicate of m0620

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					to exactly one <i>Naming_Convention</i> ." This does not support the requirement that there could be 2, 3, or more conventions where an entry must conform to one of these.	conform to one of the acceptable <i>Naming_Conventions</i> ."	
167.	US 30	06.1.2.3	1 st sentence	te	The term "partition" has connotations which are misleading here. Namespaces need not be disjoint from each other, and need not cover all the designations and identifiers in the registry.	replace the phrase "partition the set of" with clearer language, e.g. "group the".	Accepted Done as: "group sets"
168.	US 31	06.1.2.3	attributes table, and last two paragraphs	te	The mandatory_naming_convention_indicator belongs in the Designation_Space class (clause 6.2.2.5), as shown in the figures.	Move the mandatory_naming_convention attribute to the table in clause 6.2.2.5. Move the next-to-last paragraph to clause 6.2.2.5. Strike the last paragraph.	Not Accepted. The sub-types of Namespace have been removed by resolution of US47b. Action: None.
169.	US 32	06.1.2.3	3 rd paragraph	te	A competing notion of Namespaces is as simple sets of signifiers, rather than as sets of Designations or Identifications (bindings of signifiers to items). Definition of Namespaces as set of bindings impose significantly greater requirements, which will sometimes (often?) be undesirable. Perhaps both notions of Namespaces ought to be supported?	LBNL will draft a proposal for defining Namespaces as sets of signifiers, for comparison to the current model. A decision on what changes to propose will be deferred until discussion can be held of the trade-offs between the two models, and of possibilities for compromise.	Action: Change to Identification region making association of Scoped_Identifier to identified_item optional may have effectively addressed this comment. Done
170.	US 47b	06.1.2.3	And 3.3.116	te	The definition and model for Namespace both disallow a Namespace containing both Designations and Identifications. Concepts are objects, therefore they may have both Designations and Identifications. It may be useful to manage both within a single Namespace.	Change the "or" in the definition to "and", and reformulate the model accordingly.	The sub-types of Namespace have been removed. A Namespace can now apply to either Designations or Identifications or both. Action: Figures have been updated in response to Issue 254. Text to be adjusted by editor. Done
171.	US m-0620	06.1.2.3	Next to last	te	The text states "The <i>mandatory_naming_convention_indicator</i> is a <i>Boolean</i> that determines whether or not all <i>Designations</i> in a <i>Designation_Space</i> have to conform to exactly one <i>Naming_Convention</i> ." This does not support the requirement that there could be 2, 3, or more conventions where an entry must conform to one of these.	Rephrase to "The <i>mandatory_naming_convention_indicator</i> is a <i>Boolean</i> that determines whether or not all <i>Designations</i> in a <i>Designation_Space</i> have to conform to one of the acceptable <i>Naming_Conventions</i> ."	Accepted. Done
172.	US m-	06.1.2.5	All	te	COMMENT: Will users actually understand that slots extend metadata items (i.e. instances not classes)?	Adapt following text from ebXML RIM 2.0 (ISO 15000-3):	Accepted. Done

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	0540 c					<i>Slot instances provide a dynamic way to add arbitrary attributes to RegistryObject instances. This ability to add attributes dynamically to RegistryObject instances enables extensibility within the Registry Information Model. For example, if a company wants to add a "copyright" attribute to each RegistryObject instance that it submits, it can do so by adding a slot with name "copyright" and value containing the copyrights statement.</i>	
173.	US S01	06.1.3.2		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	Accepted. Done
174.	CA- 67	06.2.1	Designatable Item	Te	Per Editor's note 85, the class 'Designatable_Item' no longer serves a useful purpose.	Replace all instances of Designatable_Item in the model by Identified_Item, and review the text to identify the corresponding changes required.	Not Accepted.
175.	US 40b	06.2.2.1 and 4.5	Figure 2	te	It is still unclear what purpose Designatable_Item serves, as it does not have clear distinguishing characteristics, and there is not much explanation for it. It also makes the hierarchy of Item types rather more complicated than would appear to be necessary.	Add to the text an explanation that one rationale is to harmonize with 19763, in which ModelElements are identified and are administered, but are not (required to be) designated or defined. (The 1st CD does not actually achieve that, but that will be accomplished by the other changes proposed here.) Remove Designatable_Item from the hierarchy of Item types, i.e., remove the generalization between Identified_Item and Designatable_Item, and change Registered_Item to inherit from Identified_Item, rather than from Designatable_Item. Also remove the constraints on Registered_Item and Administered_Item referring to designation and definition, respectively; replace them, as appropriate, with new constraints in the Data_Description package. Also mark Designatable_Item with the <<type>> stereotype in the UML, indicating very explicitly that it is intended to be "mixed-in" with other classes defined in the spec, and insert text into clause 6.2.2.1 explaining that any object in a registry may be a Designatable_Item, and that conformance profiles may add requirements that all instances of some particular class(es) also be of type Designatable_Item. For clarity and consistency, also add the <<type>> stereotype and similar explanatory text for all the other Item types: Classifiable_Item, Identified_Item, Registered_Item, Administered_Item, and	Accepted. Figures have been updated to reflect changes proposed here. Editor to revise the text. Done

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						Attached_Item. Also update Figure 2 (Types of Items) and the text in clause 4.5 along these same lines. See attached updated Fig 2.	
176.	US m-0650	06.2.2.2	Editor's Note 91		The editor may assume the note to be correct, but others never assumed Context was a namespace as specified in Edition 3. Some felt Context was a subject area.		<p>Revert to Context being mandatory, and explain how to avoid infinite regress of context for contexts. Remove OCL from Fig 6, which actually made Context optional only for Contexts.</p> <p>Action: Figure has been updated. Suggested replacement of the existing note at the end of the clause:</p> <p>NOTE The requirement that all <i>Designations</i> and <i>Definitions</i> be associated with at least one <i>Context</i> applies even when the item being designated and defined is a <i>Context</i>, and this does not create a problem of infinite regress. For example, one straightforward way to satisfy this requirement is to include, within each <i>Context</i>, the <i>Designation(s)</i> and <i>Definition(s)</i> for itself; another is to place all <i>Designations</i> and <i>Definitions</i> for <i>Contexts</i> in a "registry context" (including the <i>Designation(s)</i> and <i>Definition(s)</i> for the registry context itself). Done</p>
177.	US 17	06.2.2.3	Paragraph 1	ed	<p>The text states</p> <p>"Each <i>Designatable_Item</i> may be associated with zero, one or more <i>Definitions</i>, each specified in a particular language."</p> <p>The second "each" reference can be misunderstood</p>	<p>Rephrase to</p> <p>"Each <i>Designatable_Item</i> may be associated with zero, one or more <i>Definitions</i>, each <i>Definition</i> is specified in a particular language."</p>	Duplicate of m0660 Done
178.	US 18	06.2.2.3	Paragraph 3	ed	<p>The text states</p> <p>"A <i>Designatable_Item</i> may have zero or more <i>Definitions</i> with varying <i>definition_languages</i>, <i>definition_contexts</i>, and <i>term_definition_pairings</i>."</p>	<p>Rephrase to</p> <p>"A <i>Designatable_Item</i> may have zero or more <i>Definitions</i>. Varying <i>definition_languages</i>, <i>definition_contexts</i>, and <i>term_definition_pairings</i> may be associated with the set of <i>Definitions</i> of a</p>	Duplicate of m0670 Done

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					The text is obscure and unclear English.	<i>Designatable_Item.</i> "	
179.	US 19	06.2.2.3	Paragraph 5, bullet 2		The text states "Exactly one <i>language</i> attribute of datatype <i>Language Identifier</i> . The <i>language</i> attribute records the language in which the <i>definition_text</i> is written." Wrong name of the attribute	Rephrase to "Exactly one <i>definition_language</i> attribute of datatype <i>Language Identifier</i> . The <i>definition_language</i> attribute records the language in which the <i>definition_text</i> is written."	Duplicate of m0680 Done
180.	US m-0660	06.2.2.3	Paragraph 1	ed	The text states "Each <i>Designatable_Item</i> may be associated with zero, one or more <i>Definitions</i> , each specified in a particular language." The second "each" reference can be misunderstood	Rephrase to "Each <i>Designatable_Item</i> may be associated with zero, one or more <i>Definitions</i> , each <i>Definition</i> is specified in a particular language."	Accepted. Done [Changed 'is specified' to 'being specified']
181.	US m-0670	06.2.2.3	Paragraph 3	ed	The text states "A <i>Designatable_Item</i> may have zero or more <i>Definitions</i> with varying <i>definition_languages</i> , <i>definition_contexts</i> , and <i>term_definition_pairings</i> ." The text is obscure and unclear English.	Rephrase to "A <i>Designatable_Item</i> may have zero or more <i>Definitions</i> . Varying <i>definition_languages</i> , <i>definition_contexts</i> , and <i>term_definition_pairings</i> may be associated with the set of <i>Definitions</i> of a <i>Designatable_Item</i> ."	Accepted. Done [Changed 'and' to 'and/or']
182.	US m-0680	06.2.2.3	Paragraph 5, bullet 2		The text states "Exactly one <i>language</i> attribute of datatype <i>Language Identifier</i> . The <i>language</i> attribute records the language in which the <i>definition_text</i> is written." Wrong name of the attribute	Rephrase to "Exactly one <i>definition_language</i> attribute of datatype <i>Language Identifier</i> . The <i>definition_language</i> attribute records the language in which the <i>definition_text</i> is written."	Accepted. Done
183.	US m-0690	06.2.2.4			6.2.2.4 & 6.2.2.6 do not state what the relationship means. Requires read ahead to 6.2.4.4		Description of classes should have references to the clauses where their associations are described. Done
184.	US 20	06.2.2.5			6.2.2.5 states "If the <i>one_name_per_item_indicator</i> (in <i>Namespace</i>) is true for a <i>Designation_Space</i> (a.k.a. unique names), then each <i>Designatable_Item</i> within the <i>Designations</i> of the <i>Designation_Space</i> has exactly one <i>Designation</i> within this <i>Designation_Space</i> . Unique names implies a functional mapping from <i>Designatable_Items</i> to <i>Signs</i> . In common parlance, no possibility of aliases exists. Thus two distinct signs (names) within a <i>Designation_Space</i> must refer to		Duplicate of m710.

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					<p>separate <i>Designatable_Items</i>."</p> <p>Unique names and one item per name are two very different constraints.</p> <p>If the constraints are upon the <i>Designation_Space</i>,</p> <p>One name per item is that each item only has one name in the namespace</p> <p>Unique names is that each name in the set of names are unique in the namespace</p> <p>Unique names does allow aliases</p>		
185.	US m-0700	06.2.2.5			<p>6.2.2.5 & 6.2.2.6 do not state what the relationship means.</p> <p>Requires read ahead to 6.2.4.5</p>		<p>Description of classes should have references to the clauses where their associations are described.</p> <p style="color: red;">Done</p>
186.	US m-0710	06.2.2.5			<p>6.2.2.5 states</p> <p>"If the <i>one_name_per_item_indicator</i> (in <i>Namespace</i>) is true for a <i>Designation_Space</i> (a.k.a. unique names), then each <i>Designatable_Item</i> within the <i>Designations</i> of the <i>Designation_Space</i> has exactly one <i>Designation</i> within this <i>Designation_Space</i>.</p> <p>Unique names implies a functional mapping from <i>Designatable_Items</i> to <i>Signs</i>. In common parlance, no possibility of aliases exists. Thus two distinct signs (names) within a <i>Designation_Space</i> must refer to separate <i>Designatable_Items</i>."</p> <p>Unique names and one item per name are two very different constraints.</p> <p>If the constraints are upon the <i>Designation_Space</i>,</p> <p>One name per item is that each item only has one name in the namespace</p> <p>Unique names is that each name in the set of names are unique in the namespace</p> <p>Unique names does allow aliases</p>		<p>Accepted.</p> <p>Definitions revised.</p> <p style="color: red;">Done</p>
187.	US	06.2.2.5	Paragraph 1		The statement is not correct " <i>Designation_Space</i> is a	Revise the sentence	Resolved by deletion of

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	m-0720				<p><i>Namespace</i> that assigns <i>Signs</i> to <i>Designatable_Items</i>."</p> <p>A designation_space does not assign; it may be the place where the designation is included.</p>		Designation_Space
188.	US S02	06.2.3.1		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	Most of the sentences in the attachment to the comment had the roles reversed, which is why they were false. Changes made to improve English where required. Done.
189.	US S03	06.2.3.2		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	Most of the sentences in the attachment to the comment had the roles reversed, which is why they were false. Changes made to improve English where required. Done.
190.	US m-0730	06.2.4.1		te	<p>This clause uses the wrong terms.</p> <p><i>Namespace membership</i> is an association between a <i>Designation_Space</i> and a <i>Designation</i> that indicates that the <i>Designation</i> is bound to that <i>Designation_Space</i>.</p> <p>The namespace_membership association is used to record the namespaces in which a designation is valid. The designation_namespace association has two roles: namespace (verb form: occurs_in_namespace) and binding (verb form: binds_to). The namespace (verb form: occurs_in_namespace) role refers to a Namespace. The binding (verb form: binds_to) role refers to a Designation. Each namespace (Namespace) may have zero or more bindings (Designations). Each binding (Designation) may occur_in zero or more namespaces (Namespaces).</p> <p>The namespace_membership association is a weak containment association, thus Designations are contained in Namespace. The weakness of the containment implies that deletion of the containing Namespace does not cause cascading deletions of the contained Designations."</p> <p>It must be rewritten.</p>	Rewrite.	Resolved by deletion of Designation_Space
191.	US m-0740	06.2.4.1	Paragraph 3	te	<p>This paragraph is not appropriate</p> <p>"The namespace_membership association is a weak containment association, thus Designations are contained in Namespace. The weakness of the</p>	Delete the paragraph	Accepted Done.

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					containment implies that deletion of the containing Namespace does not cause cascading deletions of the contained Designations."		
192.	US S04	06.2.4.1	paragraph 2	te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	Most of the sentences in the attachment to the comment had the roles reversed, which is why they were false. Changes made to improve English where required. Done.
193.	US m-0750	06.2.4.2	Paragraph 2	te	This paragraph is not appropriate "The item_definition association is a strong containment relation. Hence, a definition is used for exactly one designatable item. Deletion of the designatable item implies a cascading deletion of the associated definitions. Note that definitions may not be not be reused across multiple designatable items."	Delete the first and third sentences of the paragraph, leaving: "Note that a Definition is specific to one Designatable_Item; Definitions may not be reused across multiple designatable items."	Accepted Done.
194.	US S05	06.2.4.2	paragraph 1	te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	Most of the sentences in the attachment to the comment had the roles reversed, which is why they were false. Changes made to improve English where required. Done.
195.	US m-0760	06.2.4.3	Paragraph 2	te	This paragraph is not appropriate "The item_designation association is a strong containment relation. Hence, a Designation is used for exactly one Designatable_Item. Deletion of the designatable item implies a cascading deletion of the associated Designations. Note that Designations may not be not be reused across multiple designatable items."	Delete the first and third sentences of the paragraph, leaving: "Note that a Designation is specific to one Designatable_Item; Designations may not be reused across multiple designatable items."	Reword to remove reference to cascading deletes. Done with some rewording.
196.	US S06	06.2.4.3	paragraph 1	te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	Most of the sentences in the attachment to the comment had the roles reversed, which is why they were false. Changes made to improve English where required. Done.
197.	US S07	06.2.4.4		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	Most of the sentences in the attachment to the comment had the roles reversed, which is why they were false. Changes made to improve English where required. Done.
198.	US S08	06.2.4.5		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in	Most of the sentences in the attachment to the comment had

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					or of poor English. See attachment " Model Sentences Using Role Verbs"	proper English.	the roles reversed, which is why they were false. Changes made to improve English where required. Done.
199.	US S09	06.2.4.6		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	Most of the sentences in the attachment to the comment had the roles reversed, which is why they were false. Changes made to improve English where required. Done.
200.	CA-68	07.1.1	Figure 7	Te	The Organization class shown in Figure 7 is missing the Name attribute that is has in Figure 3. Either all attributes should be included, or none when showing a class from another region.		All attribute removed from Organization class in Fig 7. Done.
201.	US m-0780	07.1.2.1	Paragraph 5	te	Why is it that every instance of a Registered_Item must have at least one instance of a Submission_Record but may have a Stewardship_Record if and only if it is an Administered_Item?		Until the item is submitted, the distinction between Administered and Attached items has not been made. Add explanation to text. DONE
202.	US m-0790	07.1.2.1	Paragraph 6	te	The CD is very inconsistent on what items are subtypes of Registered_Item	The Edition 2 subtypes of Administered_Item must be subtypes of Registered_Item in Edition 3	Resolved by US 46 which changes the approach to typing. No action here.
203.	CA-69	07.1.2.2	Para. 6	Ed	The reference to 'relationship <i>reference</i> ' s/b 'association class <i>Reference</i> '. The invalid xref is supposed to be to Figure 7.		Accepted. Also the relationship is to Registered_Item, not Administered_Item. Done.
204.	US m-0820	07.1.2.2			Administration_Record is used in only one place. This one place is as the datatype of the attribute "record" in the class Administered_Item. Administration_Record contains five attributes which are not used elsewhere. The model can be simplified by collapsing the attributes directly into Administered_Item	Collapse the five attributes of Administration_Record into Administered_Item to replace the "record" attribute with "creation_date", "last_change_date", change_description", "explanatory_comment", and "origin" Most of the text of 7.2.2.1 would be moved to 7.1.2.2. 7.2.2.1 would be deleted See attached DDM-7.1.2.2 text	Accepted. Done. DDM-7.1.2.2 text not found in attachments to the ballot
205.	US m-0830	07.1.2.2	Paragraph 6	ed	Bad reference in the document	Correct the reference	Accepted. Done
206.	US 02	07.1.2.3 – Attached_Item		te	Attached item needs an explanation in the text. In particular, explain disjointness.	Add second paragraph and example of appropriate use.	Action: replace current text with the following: <i>Attached_Item provides a mechanism by which to administer a set of</i>

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							<p><i>Registered_Items together, as a group, rather than maintaining a separate Administration_Record for every individual item. For example, the Value_Meanings within a Conceptual_Domain may be attached to, and thus administered with, the containing Conceptual_Domain. As another example, all the Assertions and Ontology Entries within an Ontology may be attached to, and thus administered with, the containing Ontology.</i></p> <p>Every <i>Attached_Item</i> has an attachment association with exactly one owner, which is an <i>Administered_Item</i>. <i>Attached_Item</i> is disjoint from <i>Administered_Item</i>, which is to say that a <i>Registered_Item</i> cannot be both an <i>Attached_Item</i> and an <i>Administered_Item</i>.</p> <p style="color: red;">Done with changes to reflect other comments, such as removal of Ontology.</p>
207.	US m-0840	07.1.2.4			<p>Stewardship</p> <p>7.1.2.4 states this is between Organization and Administered_Item</p> <p>7.1.2.8 Capitalizes this as though it is a class and not a relationship</p> <p>7.1.4.4 is correct</p>		<p>Accepted.</p> <p style="color: red;">Done</p>
208.	US m-0850	07.1.2.5	Editor's note 108		The specific contact having the role of being registrar must be known		Remove the Editor's Note. Done
209.	US m-0860	07.1.2.6		ed	7.1.2.6 states "A Registration_Authority is any Organization authorized to register metadata." There is no authorization. It is self initiated.	Use the definition instead of the current 7.1.2.6 text	Accepted. Done
210.	US 38a	07.1.2.6 and 07.1.4	Figure 7	te	Treating a Registration_Authority as a subtype of Identifier_Space is confusing.	Create an association in place of the generalization. See attached updated Fig 7.	Accepted. Done

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211.	US m-0870	07.1.2.9	Paragraph 1		7.1.2.9 states "For each <i>Administered_Item</i> , an <i>Organization</i> shall be identified as the submitter as represented by the relationship <i>Submission</i> in Figure 5. This relationship identifies a <i>submission_contact</i> for the <i>Administered_Item</i> " This is inconsistent with the diagrams & definitions	Restate.	Accepted. Correct the text. Done
212.	US m-0880	07.1.2.9	Paragraph 1 sentence 2	ed	The second sentence does not match figure 5 "This relationship identifies a <i>submission_contact</i> for the <i>Administered_Item</i> "	To match figure 5 this sentence should be "This relationship identifies a <i>submission_contact</i> for the <i>Registered_Item</i> "	Accepted. Done
213.	US 01	07.1.3.1 - Registration	Figure 7	te	Life-cycle of an element needs to be tracked. An item could be in the same status more than once. Useful for review (within and across registries) and audit process. A surrogate for measure of quality. Need ability to track effective and end dates for every registration status and administrative status.	Make the change indicated in the attached revisions to Registration region and Administration Record region. Create a Registration_Record to contain the attributes that were previously contained in the Registration class. Create a new attribute of Registration called registration_state of type Registration_Record and cardinality 1. Add an attribute to the Registration_Record called previous_state of type Registration_Record and cardinality [0..1]. Need to write new text to accompany this change.	Accepted. Done
214.	US m-0890	07.1.3.2	Paragraph 1	ed	The sentence does not match figure 5 "A <i>Reference</i> is the association between a <i>Reference_Document</i> and an <i>Administered_Item</i> ."	To match figure 5 this sentence should be "A <i>Reference</i> is the association between a <i>Reference_Document</i> and an <i>Registered_Item</i> ."	Accepted. Done
215.	US 38b	07.1.4 and 07.1.2.6	Figure 7	te	Treating a <i>Registration_Authority</i> as a subtype of <i>Identifier_Space</i> is confusing.	Create an association in place of the generalization. See attached updated Fig 7.	Accepted. Done
216.	US m-0900	07.1.4.1	Paragraph 1		"Every instance of <i>attachment</i> is also an instance of <i>ownership</i> ." Ownership is not defined or described in clauses 3 through 10		Remove all reference to ownership. Done
217.	US S10	07.1.4.1	paragraph 2	te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	Most of the sentences in the attachment to the comment had the roles reversed, which is why they were false. Changes made to improve English where required. Done .
218.	US m-0910	07.2.2.1		te	<i>Administration_Record</i> is used in only one place. This one place is as the datatype of the attribute "record" in the class <i>Administered_Item</i> .	Collapse the five attributes of <i>Administration_Record</i> into <i>Administered_Item</i> to replace the "record" attribute with "creation_date", "last_change_date", change_description",	Accepted. (See also m0820.) Done . DDM-7.1.2.2 text not found in attachments to the ballot.

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					Administration_Record contains five attributes which are not used elsewhere. The model can be simplified by collapsing the attributes directly into Administered_Item	"explanatory_comment", and "origin" Most of the text of 7.2.2.1 would be moved to 7.1.2.2. 7.2.2.1 would be deleted See attached DDM-7.1.2.2 text	
219.	US 22	07.2.2.2		ed	7.2.2.2 states "The sources of values for each part of the identifier are specified in ISO/IEC 11179-6." It should also refer to the original source in ISO/IEC 6523-1	Reword to: "The sources of values for each part of the identifier are specified in ISO/IEC 6523-1 and further explained for the metadata registry in ISO/IEC 11179-6."	Duplicate of US m-0920. Accepted. Done in clause 5.1.14.1, which is where the text has moved to.
220.	US m-0920	07.2.2.2		ed	7.2.2.2 states "The sources of values for each part of the identifier are specified in ISO/IEC 11179-6." It should also refer to the original source in ISO/IEC 6523-1	Reword to: "The sources of values for each part of the identifier are specified in ISO/IEC 6523-1 and further explained for the metadata registry in ISO/IEC 11179-6."	Duplicate of US 22. Accepted. Done in clause 5.1.14.1, which is where the text has moved to.
221.	US m-0930	07.2.2.2		ed	Registration_Authority_Identifier is fully specified in and extracted from ISO/IEC 6523-1. It is not a ISO/IEC 11179 creation. It should be a common datatype. Move Registration_Authority_Identifier from Clause 7.2.2.2 to Clause 5.1 as a common datatype.	Move Registration_Authority_Identifier from Clause 7.2.2.2 into Clause 5.1 as Clause 5.1.18 another common datatype.	Duplicate of m0570 Done
222.	US 36a	08	and 10	te	As part of the functionality carried over (essentially) from Edition 2, Classification should be placed in the same clause as Relations.	Move the Classification region from clause 10 to clause 8. Also reorganize and rename the corresponding UML packages accordingly—see attached revised package dependency diagram.	Accepted. Done
223.	US m-0940	08.1	All clauses	te	This set of clauses is very unclear and needs example to clarify the text	Clarify the text and provide examples to illustrate how instances of the five classes relate	Accepted. Add example based on TR 9007 as an Annex, and cross-reference from main clause. Done
224.	US 04	08.1.1	Figure 9	te	Relations region does not support ordering of relation roles or designation of primary concept. Concepts can be combined through a "relation". Semantic meaning is conveyed by the order of the concepts. Without a way to convey the order in the metadata, the concept cannot be correctly interpreted or compared to other concepts combining the same concepts. An example is the concept "Therapy" as a modality, there are different types of therapy. Qualifiers can be added to allow combining DECs or CDEs across a broader	Extend Relation_Role class to add an ordinal attribute of type Integer[0..1].	Accepted. Done

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					<p>concept "therapy".</p> <p>"Randomized Protocol Therapy" is not the same as "Randomized Therapy Protocol".</p> <p>The notion of "Randomized Protocol Therapy" would be:</p> <p>Concept "Therapy" id = C15368, Ordinal Position = 0 Concept "Protocol" = C42651, Ordinal Position = 1 Concept "Randomized" = C28295, Ordinal Position = 2 NCI stores this information, referred to as the semantic signature, using a concept derivation rule, when strung together using a colon as a separator, would be: C28295:C42651:C15368</p> <p>Vs</p> <p>"Randomized Therapy Protocol"</p> <p>Concept "Protocol" = C42651, Ordinal Position = 0 Concept "Therapy" id = C15368, Ordinal Position = 1 Concept "Randomized" = C28295, Ordinal Position = 2 Semantic Signature of this Object Class would be: C28295:C15368: C42651</p>		
225.	US m-0950	08.1.1	Figure 9	ed	<p>The diagram would be more understandable if the link_end_role attribute was presented as a relationship to Relation_Role</p> <p>See ISO/IEC 19501 clause 5.48 figure 5-45</p>	Change the figure and text	Accepted. Done
226.	US 23	08.1.2.1	Paragraph 1		<p>The following is not a sentence</p> <p>"<i>Concepts</i> are abstract, independent of representation."</p> <p>To be a sentence, the sentence needs an object in the sentence.</p>	<p>Reword to:</p> <p>"A concept is unit of knowledge created by a unique combination of characteristics. It is independent of representation."</p>	Accepted. Done
227.	US m-0960	08.1.2.1		te	This clause needs a rewrite to convey its meaning	Rewrite	Done
228.	US m-0970	08.1.2.1	Paragraph 1		<p>The following is not a sentence</p> <p>"<i>Concepts</i> are abstract, independent of representation."</p> <p>To be a sentence, the sentence needs an object in the sentence.</p>	<p>Reword to:</p> <p>"A concept is unit of knowledge created by a unique combination of characteristics. It is independent of representation."</p>	Duplicate of US 23.
229.	CA-70	08.1.2.2	Last para.	Ed	The statement that Relation is further described elsewhere is incorrect, and the xref is invalid.	Replace that last paragraph by the statement:	Text removed. It is no longer relevant. Done

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						'Specializations of <i>Relation</i> are described in clause 10.2.2 Classes in the Concept System region'.	
230.	US m-0980	08.1.2.2		te	This clause needs a rewrite to convey its meaning. The text stating that a relation is an n-ary relation is not meaningful	Rewrite and provide a meaning that a registry implementer can understand	Action: use new definition as updated in clause 3. Done
231.	CA-71	08.1.2.4	Last para.	Ed	The statement that Link is further described elsewhere is incorrect, though it is referenced, and the xref is invalid.	Replace the last paragraph by the statement: 'Link may be used within a Concept System (see clause 10.2.2.1).	Accepted. Done .
232.	US S11	08.1.4.2	paragraph 1	te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Done .
233.	US 09	09	Data Description package	Ed	A Figure "Types of Core Concepts" and text are missing that show the Data Description classes that inherit from the Concept class.	Insert this figure and text "Types of Core Concepts", in clause 9. See attachment x for figure and text.	Accepted. The attachment was not included with the ballot comment. Figure provided by Keck. Text added by editor. Done .
234.	US 11	09	New & Figure 14	Te	A clear facility for relating one or more Conceptual_Domains with a single Object_Class is lacking.	Introduce a Reference_Scheme class to the metamodel. A Reference_Scheme is a method of uniquely identifying a member of an Object_Class. The Reference_Scheme class consists of one or more Data_Element_Concepts that are all associated with the same Object_Class. Give example of how this would be used. See attachment x.	Need a clearer statement of the problem and its proposed solution. There is concern that a reference scheme would not be able to capture dynamic changes to data, and would thus become obsolete. Action: adapt specification of Reference Scheme from OMG SBVR v1.0, clause 8.4, and/or ISO /IEC 10728:1993 IRDS. No text provided. Carry over to next ballot.
235.	US m-0990	09.1.2.2	After Paragraph 2	ed	A comment that the conceptual domain facilitates mapping between two or more value domains that share the same conceptual domain would help users understanding	Add a paragraph stating: A conceptual domain can facilitate the mapping of equivalent values of two or more value domains that share the conceptual domain.	Accepted. Done .
236.	US m-1000	09.1.2.5	Paragraph 2	ed	A comment that the data element concept facilitates mapping between two or more data elements that share the same data element concept would help users understanding	Add a paragraph stating: A data element concept can facilitate the mapping of equivalent values of two or more data elements that share the data element concept.	Accepted. Done .
237.	US S12	09.1.3.1	paragraph 1	te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Done .

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					Using Role Verbs"		
238.	US S13	09.1.3.2	paragraph 1	te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Done.
239.	US m-1010	09.1.3.3	Paragraph 1	ed	Change "associationbinds" to "association binds"	Change "associationbinds" to "association binds"	Accepted. Done.
240.	US S14	09.1.3.3		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Done.
241.	US S15	09.1.3.4	paragraph 1	te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Done.
242.	US 08	09.2.1	Figure 11	Ed	It still not clear whether the term "Characteristic" or "Type of Characteristic" (as defined in 1087) is the proper term to replace Property.	To be discussed with TC37. There are some nuances of the TC 37 definitions that creates some confusion. We started the discussion (WG 2 & TC 37) in New York, but did not reach conclusion.	No action at this time. Under discussion in TC37.
243.	US m-1020	09.2.1	Paragraph 1 sentence 1	ed	Refer to figure 11 instead of figure 13	Change the reference to figure 11	Accepted. Done, but figures have been renumbered..
244.	JP 04a	09.2.2.1	Characteristic	Te	According to 3.3.17 Characteristic and 3.3.20 Concept, Characteristic is not necessarily a subclass of Concept. The relation between Concept and Characteristic in accordance with 3.3.17 and 3.3.20 should be specified.		Text removed from this clause only, because other parts of the sentence were no longer true. Done.
245.	CA-72	09.2.2.3	Para. 3	Te	Paragraph 3 uses the terms 'sub-division' and 'criterion' as if they were roles of the association, but these are not the role names specified in Figure 11. Per Editor's Note #120, if these terms are to be used, they should be better explained.	None provided.	The references to sub-division and criterion were left over from a version of figure 11 that had been proposed for WD4. This figure was simplified in CD1, but the text was not changed to match. Delete the text. Done.
246.	JP 04b	09.2.2.3	Characteristic	Te	According to 3.3.17 Characteristic and 3.3.20 Concept, Characteristic is not necessarily a subclass of Concept. The relation between Concept and Characteristic in accordance with 3.3.17 and 3.3.20 should be specified.		Accepted in principle. Details to be resolved. Need input from TC37. Added Editor's note so we don't forget the issue. Done.

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247.	KR 01	09.2.2.3	Characteristic	te	More example is needed to illustrate the necessary of this elements		TR 20943-1 provides examples of Data Elements and Data Element Concepts, Object Classes and Properties (the old name for Characteristic). No action needed here.
248.	CA-73	09.2.2.4	Para. 2	Ed	The last sentence contains an invalid xref.	The xref should be to 9.3.2.1.	Accepted. Fixed. Xref is now 10.3.2.1. Done.
249.	US S16	09.2.3.1		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Not yet done.
250.	US S17	09.2.3.3		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Not yet done.
251.	CA-75	09.3.1	Figure 12	Te	In Figure 12, the datatype assigned to 'datatype_name' is String, but in the text in clause 9.3.2.9 the Editor has changed it to Sign for consistency with other 'name' attributes.	Make the Figure and the text consistent, preferably by changing the Figure to match the text.	Change the text to match the figure. Use String. Done.
252.	US 05	09.3.1	Figure 12	Te	Relationships between Value_Domains are not supported.	Restore recursive association capturing containment of a value domain within another (superdomain/subdomain). (solves part of problem). See revisions to Conceptual and Value Domain metamodel region which were posted to Bugzilla.	Accepted. Done in Figure.
253.	US m-1070	09.3.1	Paragraph 1 sentence 3	ed	Reference should be to figure 12	Change the reference to figure 12	Accepted. Now fig 10-3 Done
254.	US m-1080	09.3.2.1		ed	The text should state that a Conceptual_Domain is a subtype of Concept	State that a Conceptual_Domain is a subtype of Concept	Accepted. Done
255.	US m-1110	09.3.2.3	Paragraph1 last sentence	ed	Reference should be to figure C-1	Change reference to figure C-1	Reference to be corrected, taking into account resolution of other comments. Done
256.	US m-1140	09.3.2.7	After last paragraph	ed	An example would be beneficial. Use an example from ISO 3166-3 so that an end date can be expressed ISO 3166-3 NEWSLETTER No. I-1 Date: 2002-11-15 announced that:	Use an example from ISO 3166-3 so that an end date can be expressed.	Accepted. Not yet done.

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Seq	MB	Clause No./ Subclause No./Annex	Paragraph/ Figure/Table /Note	Type	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
					<p>Former country name East Timor</p> <p>Former code elements alpha-2: TP</p> <p>Former code elements alpha-3: TMP</p> <p>Former code elements numeric: 626</p> <p>Period of validity: 1974/2002</p> <p>Remarks New names (code elements): Timor-Leste (TL, TLS, 626)</p> <p>Description of change: Insert the new entry between Dronning Maud Land and French Afar and Issas on page 9 of ISO 3166-3:1999.</p> <p>Note: From 1974 to 1977 East Timor was included in ISO 3166 under the name of Portuguese Timor (TP,TMP).</p>		
257.	US S18	09.3.3.2		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Not yet done.
258.	US S19	09.3.3.3		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Not yet done.
259.	US S20	09.3.3.4		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Not yet done.
260.	US S21	09.3.3.5		te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Not yet done.
261.	JP 05	09.4.2.1	Data Element	Te	Data_Element should be a subclass of designation defined in 3.4.1 ISO1087-1, because 9.4.1 says Data_Elements are reusable and shareable representations of Data_Element_Concepts, which are a subclass of Concept at 9.2.2.1 and because 3.4.1 of ISO1087-1 says designation is representation of a concept by sign which denotes it.		Japan withdraws the first part of the comment. It is the data element name that is the designation. The term representation may be being used in multiple ways, and this needs review and clarification.
262.	US m-1160	09.4.2.1	Paragraph 2	ed	"NOTE In general usage, the term <i>data element</i> and <i>data element type</i> are used interchangeably. In this document, the shorter term <i>data element</i> is used. This is not a common perception	Remove the paragraph	Accepted. Done.
263.	CA-74	09.4.2.2	Para. 1	Ed	The first sentence contains an invalid xref.	The xref should be to 9.2.2.4.	Accepted. Done.

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Seq	MB	Clause No./ Subclause No./Annex	Paragraph/ Figure/Table /Note	Type	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
264.	US m-1180	09.4.2.2	Paragraph 1	ed	There is a bad reference in the text	Correct the reference	Accepted. Done
265.	US m-1190	09.4.2.4	table	ed	In the attribute column the attribute is "example_item"	Correct to "example_item"	Accepted. Done
266.	US m-1210	09.4.2.5	Paragraph 1	ed	Some examples would be helpful	Add a paragraph of examples: An example would be concatenation of a series of elements into a larger element. This could also require some if-then logic on determining if an element is concatenated or not. A very complex derivation could be the specification of the U.S. consumer price index. Which is not totally machine computable.	Accepted. Not yet done.
267.	KR 02	09.4.2.6	Data_Element_Derivation	te	The purpose of this concept needs to be introduced and understandable example is needed.		Editor will add examples. Not yet done.
268.	US 36b	10	and 8	te	As part of the functionality carried over (essentially) from Edition 2, Classification should be placed in the same clause as Relations.	Move the Classification region from clause 10 to clause 8. Also reorganize and rename the corresponding UML packages accordingly—see attached revised package dependency diagram.	Accepted. Done
269.	US m-1221	10	all	te	A consolidated model shows that there is enormous complexity in classification. Much of this has no definitions, descriptions or examples. It is said that some of the items overlap others in this model; is so what and how does it overlap and why is there overlap. If there is overlap, give examples on how something is expressed in each way. See Attachment "CD 11179-3 Classification" below	Definitions, descriptions, and examples are missing and needed to understand the complexity. <u>Response:</u> A good part of the apparent complexity was a consequence of citation of UML 1.4 rather than UML 2.0 (see CA comments 14-18, and US comments m-0101 and 33). The attachment does not reflect the semantics of UML 2.0.	Resolved by US 36b
270.	US 35	10.1		ed	The need to distinguish between Concept_Systems and Classification_Schemes is not clear.	Add text to explain the difference, and the need for both. With examples.	Resolved by US 36b
271.	US 39	10.1	Figure 15	te	Use of "Hierarchical" in names of classes in this region is misleading, because a classification scheme need not have any hierarchical structure, i.e., it may be completely flat.	Replace all names with "hierarchy" or "hierarchical" within them, except "hierarchy_link". See attached updated Fig 15.	Resolved by US 36b
272.	US 34	10.1.1	1 st paragraph	ed	While all strict hierarchies are partial orders, not all partial orders are strict hierarchies. Mention of partial	Strike the "or partial orders" parenthetical. Add text explaining the difference (partial orders permit	Resolved by US 36b

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Seq	MB	Clause No./ Subclause No./Annex	Paragraph/ Figure/Table /Note	Type	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
					orders here is thus misleading.	multiple parents).	
273.	US S22	10.1.3.1	paragraph 3	te	The sentence(s) produced using the "subject" class + role verb + "object" class are bad as a false statement or of poor English. See attachment " Model Sentences Using Role Verbs"	The "verb" role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	To be reworded in more natural English. Done
274.	CA-76	10.1.5.1	All	Ed	All uses of the term 'classification scheme' should be qualified as 'hierarchical classification scheme'. All references to the class 'Classification_Scheme' should be 'Hierarchical_Classification_Scheme'.		Not accepted. The prefix 'Hierarchical' is to be removed again.
275.	CA-77	10.2.1	Line 1	Ed	The word Figure is repeated, and there are two periods at the end of the sentence.	Remove the duplicated text.	Accepted. Done
276.	US m-1280	10.2.1			This CD does not clearly define, describe, characterize, and distinguish hierarchical classification scheme, concept system, and ontology. ISO CD 19144 does a much better description of classification		Resolved by US 36b
277.	JP 06	10.2.2.1	Concept System & Notation		According to 3.2.11, 3.2.1 3.2.4 and 3.5.1 of ISO 1087, Concept_System should not have an attribute "concept_system_notation", since what has its own notation is terminology and not concept system.		The original resolution was to move Notation to Ontology, but subsequent comments resulted in Ontology being removed as a separate class. Therefore, the attribute has been restored. The editor argues that however a concept system is represented will require a notation of some sort. However, the attribute is optional. Not Accepted.
278.	US m-1300	10.2.2.1	Paragraph 1	te	This states "A <i>Concept_System</i> is a class used to describe a domain of discourse which is independent of any particular application. Therefore if an application is dependent upon this it is not a Concept_System? Isn't the constraint "independent of any particular application" too constrictive?		Use text from the definition instead of the current text. Done
279.	CA-78	10.2.2.2	Line 1	Te	Binary_Relation is s sub-class of Relation, which is defined in 8.1.2.2.	Change 'is a class' to 'is a sub-class of Relation (see 8.1.2.2)'	Accepted, but change sub-class to subtype Done
280.	CA-79	10.2.2.2	Table rows	Ed	Do not allow rows to span a page break		Accepted. Done

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Seq	MB	Clause No./ Subclause No./Annex	Paragraph/ Figure/Table /Note	Type	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
281.	US m-1310	10.2.2.2	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	Accepted. Done
282.	CA-80	10.3	Ontology region	Te	Per Editor's Note #159, this region has changed substantially since the previous WD, and the changes made were incomplete. This suggests that the topic is not yet understood well enough to be standardized.	The clause should properly completed, or deferred to a future edition.	Resolved by US 36b
283.	KR 03	10.3	Ontology	te	<p>The purpose of importing concept of ontology is confusing. According to the standard, 11179 is intended to leverage ontology to classify registered_item. Therefore, ontology exists in form of a schema at the metadata level. However, the ontology in Semantic Web contains not only schema but instances also. If consider this point, it can be concluded that the standard is just wanting ontology schema to classify registered items. Since the major merit of ontology is its inference ability, the question is how the MDR will use inference ability to classify registered items. Actually, it seems like there is not much association between inference and classification. If this part of standard is intending to realize inference between registered items, the purpose and approach of doing so should be declared.</p> <p>Also, We suggest that adopting concept system to 11179 part 3 should be considered after revision of 11179 part 2 (classification).</p>		<p>No action.</p> <p>Ontology is not intended to classify registered items. Classification schemes may be used for this, but may also classify things other than registered items.</p> <p>We want to register Ontologies for their own sake, and to use them in various ways, including adding semantic value to data and metadata.</p> <p>11179 part 3 has effectively subsumed 11179 part 2. This was true even in Edition 2, where part 2 added nothing to part 3.</p>
284.	US m-1340	10.3.1		te	This CD does not clearly define, describe, characterize, and distinguish hierarchical classification scheme, concept system, and ontology. ISO CD 19144 does a much better description of classification		<p>Ontology has been removed as a separate region, and merged with Concept System.</p> <p>Done</p>
285.	CA-81	10.3.2.1	para 4	Ed	The last sentence contains an invalid xref.	The xref should be to 10.2.2.1.	<p>Ontology has been removed as a separate region, and merged with Concept System.</p> <p>Done</p>
286.	JP 07	10.3.2.2	Ontology		According to this definition, an ontology shall be described in a language which has formal semantics since it is a formal specification of the semantics. Then it is not a subclass of concept system but a subclass of terminology, which is		<p>Ontology has been removed as a separate region, and merged with Concept System.</p> <p>Done</p>

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					set of designation belonging to one special language, according to 3.5.1 of ISO1087.		
287.	US m-1350	10.3.2.2		te	The specification of an ontology is very vague. 10.3.2.2 is not consistent with 10.2.1	Action: replace first paragraph with the following: An <i>ontology</i> is a representation of a conceptualization by a set of assertions. <i>Assertions</i> may be included indirectly by importation of any number of other <i>ontologies</i> . A conceptualization is partial specification of a concept system, which is to say a specification of a range of conforming concept systems.	Ontology has been removed as a separate region, and merged with Concept System. Done
288.	CA-82	10.3.2.3	all	Te	Text is required to complete the missing clause.	None provided.	Ontology has been removed as a separate region, and merged with Concept System. Done
289.	US m-1360	10.3.2.3		te	There is no text to define or describe	Action: insert the following text: An <i>assertion</i> is an expression of a proposition, in an <i>ontology</i> , with reference to one or more <i>ontology entries</i> . The <i>assertion_formula</i> attribute captures the text of the <i>assertion</i> , as expressed in the <i>notation</i> of the <i>ontology</i> .	Ontology has been removed as a separate region, and merged with Concept System. Done
290.	CA-83	10.3.2.4	all	Te	Text is required to complete the missing clause.	None provided.	Ontology has been removed as a separate region, and merged with Concept System. Done
291.	US m-1370	10.3.2.4		te	There is no text to define or describe	Action: insert the following text: An ontology entry is a representation of a concept, relation, relation role, or context. There are two subtypes of ontology entry: identified ontology entry and denoted ontology entry. An ontology entry must be either or both an identified ontology entry or a denoted ontology entry	Ontology has been removed as a separate region, and merged with Concept System. Done
292.	CA-84	10.3.2.5	all	Te	Text is required to complete the missing clause.	None provided.	Ontology has been removed as a separate region, and merged with Concept System. Done
293.	US m-1380	10.3.2.5		te	There is no text to define or describe	Action: insert the following text: An <i>identified ontology entry</i> is an <i>ontology entry</i> in the form of a <i>scoped identifier</i> . A common subcase would be a URI Reference, as required in OWL, or as recommended in ISO/IEC 24707 Common Logic.	Ontology has been removed as a separate region, and merged with Concept System. Done

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294.	CA-85	10.3.2.6	all	Te	Text is required to complete the missing clause.	None provided.	Ontology has been removed as a separate region, and merged with Concept System. Done
295.	US m-1390	10.3.2.6		te	There is no text to define or describe	Action: insert the following text: <i>A denoted ontology entry is an ontology entry denoted by a formula, as supported in ISO/IEC 24707 Common Logic, and in Cycl. The denoted_entry_formula attribute captures the text of said formula.</i>	Ontology has been removed as a separate region, and merged with Concept System. Done
296.	CA-86	10.3.3.1	all	Te	Text is required to complete the missing clause.	None provided.	Ontology has been removed as a separate region, and merged with Concept System. Done
297.	US m-1400	10.3.3.1		te	There is no text to define or describe	Action: insert the following text: <i>The assertion term association records a reference to an ontology entry, in an assertion. An assertion must refer to at least one ontology entry; an ontology entry may be referenced in any number of assertions.</i>	Ontology has been removed as a separate region, and merged with Concept System. Done
298.	CA-87	10.3.3.3	all	Te	Text is required to complete the missing clause.	None provided.	Ontology has been removed as a separate region, and merged with Concept System. Done
299.	US m-1410	10.3.3.3		te	There is no text to define or describe	Action: insert the following text: <i>The denotation term association records a reference to an ontology entry, in an assertion. An assertion must refer to at least one ontology entry; an ontology entry may be referenced in any number of assertions.</i>	Ontology has been removed as a separate region, and merged with Concept System. Done
300.	CA-88	10.3.3.4	all	Te	Text is required to complete the missing clause.	None provided.	Ontology has been removed as a separate region, and merged with Concept System. Done
301.	US m-1420	10.3.3.4		te	There is no text to define or describe	Action: insert the following text: <i>The ontology assertion association records the origin of an assertion, i.e., the ontology in which it is directly asserted. An assertion may only be asserted directly by one ontology, though it may be included indirectly in any number of other ontologies through ontology inclusion (clause</i>	Ontology has been removed as a separate region, and merged with Concept System. Done

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						10.3.3.5). <i>Assertions</i> of the same form may of course be asserted in different <i>ontologies</i> , but they are registered as distinct <i>assertions</i> .	
302.	US S23	10.3.3.5	paragraph 2	te	The sentence(s) produced using the “subject” class + role verb + “object” class are bad as a false statement or of poor English. See attachment “ Model Sentences Using Role Verbs”	The “verb” role needs to be corrected so that the sentence is correct and that the sentence is in proper English.	Ontology has been removed as a separate region, and merged with Concept System. Done
303.	CA-89	11	All	Te	Clause 11 needs to be updated to reflect the changes to the model.	None provided.	To be done for FCD once the model has stabilized.
304.	US m-1430	11			This requires rewriting once clauses 4 through 10 are correct		To be done for FCD once the model has stabilized.
305.	CA-90	11.1	para. 2	Ed	The reference to Annex C should be Annex D.	Change 'Annex C' to 'Annex D'.	Accepted. Done
306.	US m-1440	11.1	last	ed	The reference to clause 4 is incorrect. It should be to clauses 4 through 10. “The obligations specified for some basic attributes (especially identifiers) in contexts other than a registry are different from those specified for metadata items in a registry, as defined in Clause 4.”	Change the sentence to: “The obligations specified for some basic attributes (especially identifiers) in contexts other than a registry are different from those specified for metadata items in a registry, as defined in Clauses 4 through 10.”	Accepted. Done
307.	US 46a	12	and Annex C	te	Registration requirements (specialization of Registered_Item) which were specified in Edition 2 have not been specified in clause 9, because they would introduce an unwanted dependency on clause 7 (see comment 45, desirability of conformance stated by clause). As a stop-gap, in the CD, this issue was highlighted in informative Annex C. Those requirements should instead be included in one or more conformance levels and/or conformance profiles specified in clause 12.	State such requirements in clause 12 (Conformance), in tabular and/or textual form, as part of the definitions of particular conformance levels, and/or conformance profiles. Include (also in clause 12) any figures desired to illustrate particular conformance levels and/or profiles. Remove Annex C.	Accepted. Done
308.	US m-1450	12	Paragraph 3	ed	Clause 12 states: “Conformance may be claimed to either the conceptual model, or the basic attributes or both; see 5.2.” The reference 5.2 does not exist	?	Remove Reference Done
309.	US 45	12.2		te	It is desirable to show levels of conformance in finer detail than just “strictly conforming” and “conforming”, beyond the level of detail in the table of mandatory and optional clauses.	Specify that conformance can be stated by clause. There is a standard way for making such assertions. The text will be supplied to help implement this comment.	Differentiate conformance for registries from conformance for other purposes. Done
310.	US 06	99 Annex B	Figure B.1	Ed	This figure does not have any accompanying text and the completeness of the figure is not clear. Annex needs to have an explanation of what it is there for.	Add text explaining that only classes with a super/subclass are shown in the Figure. Classes that are not part of a hierarchy are not included. A	Accepted. Done

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					There are some figures missing.	revision to the Figure will be necessary.	
311.	US 07	99 Annex B	Figure B.1	Ed	Text that explains why Registered_Item is no longer a superclass of all the classes in the Data_Description package is missing.	Add text that explains why Registered_Item is no longer a superclass of all the classes in the Data_Description package.	Resolved by US46.
312.	US 14	99 Annex B	Figure B.1	Te	Annex B is all from normative material, so it should be a normative annex.	Change "informative" to "normative".	Accepted. Done
313.	US 46b	99 Annex C	And 12	te	Registration requirements (specialization of Registered_Item) which were specified in Edition 2 have not been specified in clause 9, because they would introduce an unwanted dependency on clause 7 (see comment 45, desirability of conformance stated by clause). As a stop-gap, in the CD, this issue was highlighted in informative Annex C. Those requirements should instead be included in one or more conformance levels and/or conformance profiles specified in clause 12.	State such requirements in clause 12 (Conformance), in tabular and/or textual form, as part of the definitions of particular conformance levels, and/or conformance profiles. Include (also in clause 12) any figures desired to illustrate particular conformance levels and/or profiles. Remove Annex C.	Annex C has been replaced by a new Annex from US 44. Done
314.	US m-1490	99 Annex D.1	Paragraph 2	ed	The reference to clause 4 is incorrect. It should be to clauses 4 through 10. This annex maps the 1994 basic attributes to the metamodel in Clause 4, and the new basic attributes in Clause"	Change the sentence to: This annex maps the 1994 basic attributes to the metamodel in Clauses 4 through 10, and the new basic attributes in Clause"	Accepted. Done
315.	US m-1500	99 Annex D.1.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
316.	US m-1510	99 Annex D.2.1.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
317.	US m-1520	99 Annex D.2.1.2	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
318.	US m-1530	99 Annex D.2.1.3	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
319.	US m-1540	99 Annex D.2.1.4	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
320.	US m-1550	99 Annex D.2.1.5	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
321.	US m-1560	99 Annex D.2.1.6	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
322.	US	99 Annex	Table	ed	The table needs a an id and name and to be indexed	The table needs a an id and name and to be	To be done for FCD once the

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	m-1570	D.2.1.7			as per ISO/IEC Directives Part 2	indexed as per ISO/IEC Directives Part 2	model has stabilized.
323.	US m-1580	99 Annex D.2.1.8	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
324.	US m-1940	99 Annex D.2.10.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
325.	US m-1950	99 Annex D.2.10.2	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
326.	US m-1960	99 Annex D.2.10.3	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
327.	US m-1970	99 Annex D.2.10.4	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
328.	US m-1590	99 Annex D.2.2.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
329.	US m-1600	99 Annex D.2.2.2	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
330.	US m-1610	99 Annex D.2.2.3	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
331.	US m-1620	99 Annex D.2.3.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
332.	US m-1630	99 Annex D.2.3.2	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
333.	US m-1640	99 Annex D.2.3.3	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
334.	US m-1650	99 Annex D.2.3.4	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
335.	US m-1660	99 Annex D.2.4.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
336.	US m-1670	99 Annex D.2.4.2	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
337.	US m-	99 Annex	Table	ed	The table needs a an id and name and to be indexed	The table needs a an id and name and to be	To be done for FCD once the

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Seq	MB	Clause No./ Subclause No./Annex	Paragraph/ Figure/Table /Note	Type	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	1680	D.2.4.3			as per ISO/IEC Directives Part 2	indexed as per ISO/IEC Directives Part 2	model has stabilized.
338.	US m-1690	99 Annex D.2.4.4	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
339.	US m-1700	99 Annex D.2.4.5	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
340.	US m-1710	99 Annex D.2.4.6	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
341.	US m-1720	99 Annex D.2.4.7	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
342.	US m-1730	99 Annex D.2.5.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
343.	US m-1740	99 Annex D.2.5.2	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
344.	US m-1750	99 Annex D.2.5.3	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
345.	US m-1760	99 Annex D.2.5.4	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
346.	US m-1770	99 Annex D.2.6.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
347.	US m-1860	99 Annex D.2.6.10	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
348.	US m-1780	99 Annex D.2.6.2	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
349.	US m-1790	99 Annex D.2.6.3	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
350.	US m-1800	99 Annex D.2.6.4	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
351.	US m-1810	99 Annex D.2.6.5	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
352.	US m-	99 Annex D.2.6.6	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.

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Seq	MB	Clause No./ Subclause No./Annex	Paragraph/ Figure/Table /Note	Type	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	1820						
353.	US m- 1830	99 Annex D.2.6.7	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
354.	US m- 1840	99 Annex D.2.6.8	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
355.	US m- 1850	99 Annex D.2.6.9	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
356.	US m- 1870	99 Annex D.2.7.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
357.	US m- 1880	99 Annex D.2.8.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
358.	US m- 1890	99 Annex D.2.8.2	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
359.	US m- 1900	99 Annex D.2.8.3	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
360.	US m- 1910	99 Annex D.2.9.1	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
361.	US m- 1920	99 Annex D.2.9.2	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
362.	US m- 1930	99 Annex D.2.9.3	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
363.	US m- 1980	99 Annex E.2	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.
364.	US m- 1990	99 Annex E.3	Table	ed	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	The table needs a an id and name and to be indexed as per ISO/IEC Directives Part 2	To be done for FCD once the model has stabilized.