

# ISO/IEC JTC 1/SC 32 N 1867

Date: 2009-06-07

REPLACES: —

## ISO/IEC JTC 1/SC 32

### Data Management and Interchange

Secretariat: United States of America (ANSI)  
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<b>DOCUMENT TYPE</b>	Summary of Voting/Table of Replies
<b>TITLE</b>	Summary of Voting on 32N1831 FCD 19763-3 Information technology - Metamodel framework for interoperability (MFI) Part 3: Metamodel for ontology registration 2nd Edition
<b>SOURCE</b>	SC32 Secretariat
<b>PROJECT NUMBER</b>	1.32.22.02.03.00
<b>STATUS</b>	WG2 is requested to resolve the comments. The document obtained substantial support.
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<b>REQUESTED ACTION</b>	
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Dr. Timothy Schoechle, Secretary, ISO/IEC JTC 1/SC 32  
Farance Inc \*, 3066 Sixth Street, Boulder, CO, United States of America  
Telephone: +1 303-443-5490; E-mail: [Timothy@Schoechle.org](mailto:Timothy@Schoechle.org)  
available from the JTC 1/SC 32 WebSite <http://www.jtc1sc32.org/>  
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## ISO/IEC JTC 1/SC 32 N1867

### Summary of Voting on Document SC 32 N 1831

**Title:** Summary of Voting on 32N1831 FCD 19763-3 Information technology - Metamodel framework for interoperability (MFI) Part 3: Metamodel for ontology registration 2nd Edition

Project: 1.32.22.02.03.00

<b>“P” Member</b>	<b>Approval</b>	<b>Approval with Comments</b>	<b>Disapproval with Comments</b>	<b>Abstention with Comments</b>
Australia				
Belgium				
Brazil				
Canada			1	
China	1			
Czech Republic	1			
Egypt				
Finland				
Germany				1
Japan	1			
Korea, Republic of	1			
Portugal				
Sweden				
United Kingdom			1	
United States				
<b>Total “P”</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>1</b>
<b>“O” Member</b>				
Austria				
Denmark				
France				
Italy				
Kazakhstan				
Netherlands, The				
Norway				
Russian Federation				
Switzerland				
<b>Total “O”</b>				

Dr. Timothy Schoechle, Secretary, ISO/IEC JTC 1/SC 32

Farance Inc \*, 3066 Sixth Street, Boulder, CO, United States of America

Telephone: +1 303-443-5490; E-mail: [Timothy@Schoechle.org](mailto:Timothy@Schoechle.org)

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## **COMMENTS:**

### **Canada**

No. See comments attached below:

### **Germany**

Abstain. Lack of expertise and interest:

### **United Kingdom**

No. See comments attached below:

### **ISO Editor**

See comments attached below:

1	2	(3)	4	5	(6)	(7)
MB <sup>1</sup>	Clause No./ Subclause No./ Annex (e.g. 3.1)	Paragraph/ Figure/Table/ Note (e.g. Table 1)	Type of com- ment <sup>2</sup>	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
CA 01	0-All		Ge	This standard is positioned within the 19763 family of standards, and references the 19763-1 framework document, but otherwise seems to have no dependence on other parts of 19763. 19763-1 states that 19763-3 is dependent on 19763-2, but that is not the case. All the classes in the 19763-3 metamodel are sub-typed from Administered_Item, which is taken from 11179-3. Therefore, this standard seems to have a closer affinity to 11179 than to 19763.	We recommend that the study period on WG2 Standards consider and explain the rationale for positioning this document in 19763 (perhaps because other parts of 19763 will rely on it?).  The discrepancy with the 19763-1 Framework Model should be addressed.	
CA 02	0-Introduction	para 1	Ed	The first paragraph of the introduction references e-Business and business transactions, but the rest of the document makes no mention of them, nor are there any normative references to ISO/IEC standards for e-Business.	Delete the first paragraph of the Introduction.	
CA 03	2.1 General	para 1	Ed	The first sentence needs to be clarified. The reference to 'the metamodel or the metamodels' (sic), makes it sound as if we don't know how many are specified. Since there are two metamodels specified, we cannot refer to the metamodel in the singular.	Change 'the metamodel or the metamodels' to: 'one or both of the metamodels'.	
CA 04	4.1.1.1	definition	Te	Ontology is defined as:  description, in a language that a computer can process, of a range of concrete or abstract things that have been, are, or ever might be.  We have the following comments on this definition:  1) <b>description</b> seems too weak a term, if this is to be computer processable. <b>formal specification</b> would be better.  2) <b>range</b> does not seem appropriate. <b>set</b> would be better.  3) we should indicate how the set of concepts is bounded, e.g. by some domain of knowledge or universe of discourse.	We present two alternatives:  1) Applying the individual changes proposed at the left: <b>formal specification of a set of concrete or abstract things, and the relationships among them, in a specified domain of knowledge or universe of discourse.</b>  We could optionally add a Note:  <b>Note: the formal specification should be computer processable.</b>  2) Tom Gruber has revised his definition to: a set of representational primitives	

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2 **Type of comment:** **ge** = general **te** = technical **ed** = editorial

**NOTE** Columns 1, 2, 4, 5 are compulsory.

1	2	(3)	4	5	(6)	(7)		
MB <sup>1</sup>	Clause No./ Subclause No./ Annex (e.g. 3.1)	Paragraph/ Figure/Table/ Note (e.g. Table 1)	Type of com- ment <sup>2</sup>	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted		
				<p>4) the specification should not just be about the things, but also about the relationships among them.</p> <p>5) <b>language that a computer can process</b> is rather vague. 'language' if not qualified usually means 'natural (i.e. human) language, which does not lend itself well to formal specifications.</p> <p>6) <b>that have been, are, or ever might be</b> may not be true for all ontologies.</p>	<p>with which to model a domain of knowledge or discourse  <a href="http://tomgruber.org/writing/ontology-definition-2007.htm">http://tomgruber.org/writing/ontology-definition-2007.htm</a>            Unfortunately, he does not define 'representational primitive'.</p>			
CA 05	5.4 & 5.5	throughout	Ed	In many of the tables, text wraps to the next line at arbitrary places in a word.	<p>Adjust how the text wraps to the next line so that it occurs at a natural breakpoint for a word.</p> <p>E.g. in 5.4.1</p> <table border="1"> <tr> <td>lessThanOr EqualTo</td> <td>Authorative_ Extent</td> </tr> </table>	lessThanOr EqualTo	Authorative_ Extent	
lessThanOr EqualTo	Authorative_ Extent							
CA 06	5.4 & 5.5	throughout	Ed	In many instances, the description of a class refers to attributes which are not immediately apparent, because they are inherited from a superclass (e.g. "consistsOf" in the Constraint in 5.4.7).	<p>Identify the source of inherited attributes.</p> <p>E.g. in 5.4.7, by Inserting "(inherited from Registered_Ontology_Whole)" after "consistsOf".</p>			
CA 07	5.4.1	all	Te	The concept of 'authoritative extent' needs to be defined. What does it mean? The whole purpose of Authoritative Extent needs to be explained.	None provided.			
CA 08	5.4.2	Note	Ed	There is a typo in the second line	Local_Otology_Whole s/b Local_Ontology_Whole.			
CA 09	5.4.15	line 2	Ed	There is a typo in the second line	Regestered_ s/b Registered_			
CA 10	5.5.3	line 1	Ed	There is a typo in the first line	Registetereed_ s/b Registered_			
CA 11	5.5.4	line 1	Ed	There is a typo in the first line	Registetereed_ s/b Registered_			

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<b>MB<sup>1</sup></b>	<b>Clause No./ Subclause No./ Annex</b> (e.g. 3.1)	<b>Paragraph/ Figure/Table/ Note</b> (e.g. Table 1)	<b>Type of com- ment<sup>2</sup></b>	<b>Comment (justification for change) by the MB</b>	<b>Proposed change by the MB</b>	<b>Secretariat observations</b> on each comment submitted

END

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## Template for comments and secretariat observations

Date: 19 May 2009

Document: ISO/IEC FCD 19763-3 Edition 2

1	2	(3)	4	5	(6)	(7)
MB <sup>1</sup>	Clause No./ Subclause No./ Annex (e.g. 3.1)	Paragraph/ Figure/Table/ Note (e.g. Table 1)	Type of comment <sup>2</sup>	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
GB 01	General		te	<p>This revised part of 19763 is relatively simple compared to part 2. It sets out a simple high level metamodel for registering ontologies and tracking their evolution. It does not attempt to fully represent ontologies, merely register external ontologies and track their evolution. The metamodel is so abstract that it can be used to refer to probably all specific ontology metamodels. Detailed ontology languages are outside the scope of the standard. By itself the part doesn't seem very useful, but when combined with specific ontology standards there could be some value.</p> <p>But this revised part does not reference part 2 of this standard which describes the core model for 19763 so it is not clear why this part is still a part of 19763.</p> <p>It is not clear whether ontology is different enough from other kinds of metadata to warrant a separate part of 19763 rather than use the facilities provided in 11179 (and it is noted that 11179-3 is a normative reference).</p>	Revise this draft part so that it is dependent on 19763-2 or cancel this part and incorporate the facilities in 11179.	
GB 02	General		ed	There are a number of areas where the English could be improved. For example, the use of the word "inevitable" in the first sentence of the second paragraph of the Scope clause is almost certainly inappropriate.		
GB 03	2.1	1	ed	Spelling of "metamodels" is incorrect.	Change "metamodels" to "metamodels".	
GB 04	2.1	1	ed	On first reading, the paragraph appears to be vague or ambiguous.	Change the paragraph to: "An implementation claiming conformance to this part of ISO/IEC 19763 shall support one or more of the metamodels specified in this part of ISO/IEC 19763. Depending on the level and degree of conformance claimed, it either may or shall not support extensions.	
GB 05	4.1.1.1		ed	The text of this and a small number of other definitions is terminated with a full stop (period), but most other definitions are not so terminated.	Terminate all or no definitions with full stops.	

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Document: ISO/IEC FCD 19763-3 Edition 2

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GB 06	4.1.2.2		ed	The word "composes" usually implies the combination of a number of elements, whereas in this definition it is being used to refer to a single element.	Replace "composes" with "forms", or simply "is".	
GB 07	5.4, 5.5		ed	The layout of the class specifications differs from that used in other parts of this standard.	Adopt a common layout for class specifications across all parts of the 19763 standard.	
GB 08	5.4.1		te	The class definition in 5.4.1 is inconsistent with Figure 3. The recursive association in Figure 3 is shown as a many-to-many association (0..* at both ends) yet only one reference is shown in 5.4.1. For a many-to-many association two references are required.	Add second reference.	
GB 09	5.4.3		te	The Note takes the form of a requirement, contrary to the provisions of part 2 of the ISO/IEC Directives. It also repeats part of the description of the "name" attribute. Further, both the note and the description reference an Informative Annex in the requirement.	If there is indeed a requirement intended, promote the relevant text and the referenced annex into normative elements of the document. Otherwise, revise the Note to say that Annex A suggests a means of deciding the value of the attribute and delete the relevant section of the description of the "name" attribute.	
GB 10	5.4.5		te	The constraint is applied to the wrong class.	Reword and move to 5.5.2 (Ontology_Whole_Evolution)	
GB 11	5.4.6		te	The constraint is applied to the wrong class.	Reword and move to 5.4.5 (Registered_Ontology_Whole)	
GB 12	5.4.7		ed	In the constraint definition "consistsOf" is a reference, not an attribute.	Delete "attribute", insert "reference"	
GB 13	5.4.7 and Figure 3		te	A more appropriate name for this class is "Reference_Registered_Ontology_Whole".	Rename	

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GB 14	5.4.7, 5.4.8 and Figure 3		te	The constraints are poorly worded and their purpose was not clear until the model had been studied for some time. The intent could be made clearer by replacing the "consistsOf" association between "Registered_Ontology_Whole" and "Registered_Ontology_Component" with individual associations from "Reference_Ontology_Whole" and "Local_Ontology_Whole" to the relevant subclasses of "Registered_Ontology_Component".	Replace the existing ambiguous association with explicit unambiguous associations and make corresponding textual amendments to the class definitions.	
GB 15	5.4.8 and Figure 3		te	A more appropriate name for this class is "Local_Registered_Ontology_Whole".	Rename	
GB 16	5.4.9		ed	Typo - there is a "tt" at the end of the class description.	Amend	
GB 17	5.4.9		te	In the constraint the phrase "and to identify the corresponding sentence" is a rationale for the constraint and not part of the constraint.	Remove the phrase.	
GB 18	5.4.10		ed	Typo - "sentence" is incorrectly spelt in the description of "sameAs"	Amend	
GB 19	5.4.10		te	The class definition in 5.4.10 is inconsistent with Figure 3. The recursive association in Figure 3 is shown as a many-to-many association (0..* at both ends) yet only one reference is shown in 5.4.10. For a many-to-many association two references are required.	Add second reference.	
GB 20	5.4.10		te	The constraint is applied to the wrong class.	Reword and move to 5.5.3 (Ontology_Component_Evolution)	
GB 21	5.4.11 and Figure 3		te	A more appropriate name for this class is "Reference_Registered_Ontology_Component".	Rename	

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Date: 19 May 2009

Document: ISO/IEC FCD 19763-3 Edition 2

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MB <sup>1</sup>	Clause No./ Subclause No./ Annex (e.g. 3.1)	Paragraph/ Figure/Table/ Note (e.g. Table 1)	Type of comment <sup>2</sup>	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
GB 22	5.4.11, 5.4.12 and Figure 3		te	The constraints would be unnecessary if the "consistsOf" association between "Registered_Ontology_Whole" and "Registered_Ontology_Component" is replaced as described above and the "uses" association between "Registered_Ontology_Component" and "Ontology_Atomic_Construct" is similarly replaced by explicit associations between the subclasses.	Replace the existing ambiguous associations with explicit unambiguous associations and make corresponding textual amendments to the class definitions.	
GB 23	5.4.12 and Figure 3		te	A more appropriate name for this class is "Local_Registered_Ontology_Component".	Rename	
GB 24	5.4.14		te	The class definition in 5.4.14 is inconsistent with Figure 3. The recursive association in Figure 3 is shown as a many-to-many association (0..* at both ends) yet only one reference is shown in 5.4.14. For a many-to-many association two references are required.	Add second reference.	
GB 25	5.4.14		te	The constraint is applied to the wrong class.	Reword and move to 5.5.4 (Ontology_Atomic_Construct_Evolution)	
GB 26	5.4.16 and Figure 3		te	A more appropriate name for this class is "Reference_Registered_Ontology_Atomic_Construct".	Rename	
GB 27	5.4.16, 5.4.17 and Figure 3		te	The constraints would be unnecessary if the "uses" association between "Registered_Ontology_Component" and "Ontology_Atomic_Construct" is replaced as described above.	Replace the existing ambiguous associations with explicit unambiguous associations and make corresponding textual amendments to the class definitions.	
GB 28	5.4.17 and Figure 3		te	A more appropriate name for this class is "Local_Registered_Ontology_Atomic_Construct".	Rename	
GB 29	5.5.2		ed	In the description of "isComposedOf" the opening name should be "Ontology_Component_Evolutions" since the reference is 0..*.	Amend	
GB 30	5.5.2		ed	In the description of "isComposedOf" there is a "y" missing in "Registered_Ontolog_Components".	Amend to read "Registered_Ontology_Components"	
GB 31	5.5.2		ed	In the description of "isComposedOf" the word "composes" is used incorrectly.	Replace with "forms"	

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Date: 19 May 2009

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GB 32	5.5.3		ed	In the description of "isComposedOf" the opening name should be "Ontology_Atomic_Construct_Evolutions" since the reference is 0..*.	Amend	
GB 33	5.5.3		ed	In the description of "isComposedOf" there is a "y" missing in "Registered_Ontolog_Components" but it should read "Registered_Ontology_Atomic_Constructs".	Amend to read "Registered_Ontology_Atomic_Constructs"	
GB 34	5.5.3		ed	In the description of "isComposedOf" the word "composes" is used incorrectly.	Replace with "forms"	
GB 35	5.5.3		ed	In the description of "isComposedOf" the last name should be "Ontology_Component_Evolution" and not "Ontology_Whole_Evolution".	Amend	

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## Template for comments and secretariat observations

Date: 2009-06-08

Document: ISO/IEC FCD 19763-3

1	2	(3)	4	5	(6)	(7)
MB <sup>1</sup>	Clause No./ Subclause No./ Annex (e.g. 3.1)	Paragraph/ Figure/Table/ Note (e.g. Table 1)	Type of com- ment <sup>2</sup>	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
**	1		ed	The scope shall consist of a series of statements of fact describing the content of the document. It should not provide general commentary about the subject.	Delete first 2 sentences of second paragraph or move them to the introduction.	
**	3, 4.1		ed	Giving year of publication of normative references excludes any amendments to or revisions of these documents. This is especially relevant for ISO/IEC 11179-3, which is under revision.	Give undated references in order to reference the latest edition of each document.  Otherwise, note that ISO/IEC 19763-3 will need to be revised when the dated references are superseded.	
**	Annex A		ed	Publicly available ISO documents that are referenced informatively shall be listed in the bibliography.	Include ISO/IEC 13250 and ISO/IEC 24707 in the bibliography.	

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