

1	2	(3)	4	5	(6)	(7)	
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		Page 5			This text can go in the Notes for this diagram.	AR: Update this and all the other V1 to V2 diagrams before finalization?	
		Page 7			This diagram was in the EA file but is not in the 2.0.0 PDF.	AR: None. Info only.	
		Page 10			Stereotype "abstract" left in since it is in the 2.0.0 PDF, but it should be removed since S-100 convention is to indicate abstract types by italicizing the name.	AR: Fix in next revision.	
		Page 10			<p>All enumerations should use the proper classifier type in Enterprise Architect (i.e., Enumeration). Stereotyping classes as "enumeration" is probably an historical artifact even in the ISO standards.</p> <p>The visual effects are minor (the stereotype for the "literals" is removed - compare to the same figure in 2.0.0 PDF, which has an "enumeration" stereotype inside the box too). The external semantics are the same.</p> <p>The internal modeling issue should to be fixed at some point of time but an immediate fix is probably not needed.</p>		
		Page 12			PDF text: 2a-1.1 item 6 refers to non-existent class S100_CD_InformationRole	AR: Fix in next clarification of S-100.	

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		Page 15			Text of 3-5.3.12 calls it S100_GF_EnumerantClass; Ed. 2.0.0 has S100_EnumerantClass in figure 3-2	AR: harmonize the figure and the text in the next revision of S-100	
		Page 15			Value type for integer, real, and boolean are corrected in the UML to use correct modeling. Visual differences unnoticeable unless you look really closely.	AR: Replace figure 3-2 with the correct figure in the next clarification of S-100.	
		Page 16			Special Note: This version of Figure 3-3 is an accurate representation of the 2.0.0 GFM but the published text of edition 2.0.0 has the old diagram from 1.0.0		
		Page 20			S-100 Figure 3-3, as depicted in the published S-100 Edition 2.0.0. This figure is a legacy and cannot be drawn with the 2.0.0 UML model . The figure in the published Word/PDF S-100 should be replaced at the next opportunity with the correct figure, which is Figure 3-3 in the General Feature Model package.		
		Page 21			Abstract class S100_DiscoveryMetadata is mentioned in the text as "S100_Discovery Metadata module", 8-6.3 and Fig. 8-18, but 8-18 does not depict it, depicts S100_DatasetDiscoveryMetadata instead.	AR: Delete?	
		Page 22			overwritten" should be "overridden" Change not made yet, to keep sync with published text of 2.0.0.	AR: Fix in next clarification of 2.0.0	

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		Page 22			Discrepancies in PDF text of 2.0.0: 1) Clause 4a-D.2.1 - table does not have mult for superset and subset roles 2) D.2.11 - description missing for attribute "comment"	AR: Fix text in next clarification	
		page 24 page 26		TE	S100_CatalogueMetadata is not defined. There is a class "S100_Catalogue" but that is a *supertype* for catalogues, in figure 4a-D.3, not metadata for catalogues.	Treat catalogues as support files, i.e., S100_CatalogueMetadata = S100_SupportFileDiscoveryMetadata.	
		Page 24		TE	The model does not provide for ISO 19115 format metadata for support files.	Confirm.	
4a		page 24 page 25		TE	S100_SupportFileMetadata has aggregation associations to S100_ExchangeCatalogue (Fig. 4a-D.3) as well as S100_DatasetDiscoveryMetadata (Fig. 4a-D.2). Theoretically this allows discovery metadata for a support file to be placed directly under both S100_ExchangeCatalogue and S100_DatasetDiscoveryMetadata. S-100 needs a clarification saying that two types of support files are possible: related to the whole exchange set, or related to an individual dataset.	Add appropriate notes to Figure 4a.D.2 and 4a.D.3. a) Discovery metadata for a support file for a dataset should be located/referenced as shown in Figure 4a-D.2, i.e., in the dataset discovery metadata. b) Discovery metadata for a support file for the exchange set should be located/referenced as shown in Figure 4a-D.3, i.e., directly in the exchange catalogue.	
4a		page 25 page 26		TE	Two questions arise in connection with sharing of support files by different datasets: 1) Should sharing of support files by different datasets be (a) allowed without restriction, (b) allowed but discouraged, (c) something else? What if	Invite a paper addressing these issues.	

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					the support file is duplicated in a different exchange set? 2) If it is permitted, where should the discovery metadata for shared support files be placed/referenced?		
		Page 26			All enumerations should use the proper classifier type in Enterprise Architect (i.e., Enumeration). Stereotyping classes (sic) as "enumeration" is probably an historical artifact even in the ISO standards. The visual effects are minor (the stereotype for the "literals" is removed, and there are no + signs before the "attributes" - since they are actually literals for enumerations). The "apparent semantics" are the same for S-100 purposes. The internal modeling issue should be fixed at some point of time but an immediate fix is probably not needed. AR: TBD		
		Page 26			purpose: type should be S100_SupportFilePurpose, consistent with Table D.2.11, but PDF also has CharacterString	AR: Fix figure before finalization of UML	Withdrawn
		Page 26			layerID: mult changed to 0..* to match D-2.6 (PDF has mult=1 in the figure but 0..* in the table).	AR: Figure in PDF/Word should be replaced in next clarification of S-100	
		Page 26			PDF of 2.0.0 has class name misspelled.	AR: none; this figure will have to be replaced in the next clarification of S-100 since there are other discrepancies too.	
		Page 26			For the first 2 literals, the text has "ISO/IEC 8211 ..." but the model (& S-101?) say "ISO 8211..."	AR: Harmonize text with figure in the next clarification of S-100	

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					Also, ASCII in the figure instead of Text as in Table 4a-D.2.12. Table 4a-D.2.12 does not include XHTML.	AR-2: This should probably be an open enumeration but that question is for a future revision.	
		Page 26			mult of phone and address should be 0..1 to match D-2.4	AR: figure in PDF should be replaced in next clarification of S-100 anyway.	
		page 26			S100_SupportFileDiscoveryMetadata multiplicity of otherDataTypeDescription and digitalSignatureValue should be [0..1], as in Table D.2.11	Fix in next clarification. The exchange catalogue schema will use 0..1.	
		Page 26 page 25		TE	Figure 4a.D.3 defines S100_Catalogue similarly to S100_DiscoveryMetadata and S100_SupportFileDiscoveryMetadata, But Fig. 4a.D.3 has S100_Catalogue as a generalization of classes S100_FeatureCatalogue and S100_PortrayalCatalogue. Modelling of FC in Part 5 is not quite the same (language, locale, characterSet attributes are missing in Part 5). Modelling of PC in Part 9 – the equivalent is class PortrayalCatalog defined in Figure 9-20 but that class omits many of the attributes of S100_Catalogue in Part 4a (and is not actually a specialization of S100_Catalogue).	Rename S100_Catalogue in Figure 4a-D.3 as S100_CatalogueDiscoveryMetadata and add to Figure 4a-D.3. Address the question of what relationship is between S100_Catalogue and S100_FeatureCatalogue and PortrayalCatalog.	
		Page 26 page 23		TE	In Fig. 4a-D.1 & 4a-D.4, S100_ExchangeCatalogue might be made a subtype of MX_Aggregate instead of a realization of it, since the structure is generally similar and some attributes represent the same information. This allows use of ISO types in the	Analyse this question as part of the discussion on introducing ISO 19115-1:2014 into S-100. It might be done without 19115-1:2014 but is likely to involve revising the model in 4a-D.4 to	

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					exchange catalogue. It should put the exchange catalogue in a more familiar form for tools.	match the hypothetical XML implementation.	
		Page 26		TE	If the product specification for support file discovery metadata is to indicate the file format specification (e.g., TIFF 6.0), there is a problem with indicating the format for Text support files since productSpecification and its sub-elements are mandatory (especially with date). For Text support files, the information will have to be either some ancient document, or some Unicode specification, or this S-100 standard itself (unlike TIFF, XML, or HTML, or JPEG or video support files, which can refer to specific standards).	Either: (a) determine a standard “product specification” format for Text support files, or (b) make productSpecification optional for Text support file. Recommend option (b). Amend Figure 4a-D.4 and D.2.11 by changing the multiplicity and adding a constraint that productSpecification may be omitted only if dataType is Text.	
		Page 27			1) The parent package names are from the ISO TC211 packages, which do not match the figure in the 2.0.0 PDF exactly. Their placement is also done automatically by EA. Lines are dashed rather than solid because they are dependencies (another automatic EA representation). 2) The extra relationships in the CHS figure may or may not be more up-to-date than the figure from the ISO 19115-2:2009 Figure 3. That should be a review point for the next revision of S-100.	AR: Review the corresponding relationships in the ISO packages for the next revision of S-100 and update this diagram if needed.	
		Page 29			Elements in this diagram are ISO 191xx elements copied and adapted to conform to Edition 2.0.0 of S-100, which has a small number of differences from the ISO model (see diagram notes). It should either be harmonized with ISO or S100_ prefixes used. S-100 edition 2.0.0 actually adapts a few		

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					of the ISO elements - either it should be harmonized with ISO or S100_ prefixes should be used. DQ_Element dateTime multiplicity · DQ_EvaluationMethodTypeCode stereotype changed to enumeration · DQ_Scope level multiplicity · levelDescription type changed from MD_ScopeDescription to S100_MD_ScopeDescription · DQ_QuantitativeResult valueUnit type S100_UnitOfMeasure ·		
		Page 30			Figure 4c-A2 — Data Quality Measure Registry UML (from ISO 19138) S-100 edition 2.0.0 actually adapts a few of the ISO elements - either it should be harmonized with ISO or S100_ prefixes should be used.		
		Page 32			PDF has the caption of this figure as "Figure A. 1. ...", the number should be "5-A.1". AR: Add "5-" in next clarification.		Accepted
		Page 36			1) Table 6-3 - In ISO 19111:2007 domainOfValidity is an inherited attribute 2) Table 6-3 misspells EX_Extent	AR: Need clarification to Edition 2.0.0, to say domainOfValidity is inherited and correct spelling of EX_Extent	
		Page 37			alias Type is CharacterString in figure 6-2 but GenericName in Table 6-4.1.2	AR: Reconcile in next clarification/revision of S-100	
		Page 43			Coordinates is now "ordered". There were two definitions in the UML model, one with {ordered} set	AR: none, explanation only	

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					for attribute coordinates and one without. I standardized the UML on {ordered} since axis order obviously matters, and ISO 19107 uses "Sequence" which has similar semantics. ISO 19107 has sequence<Number> and an extra derived attribute dimension; for next revision consider whether S-100 needs to use the precise ISO 19107 definition. So taking the broad view this should not matter at all.		
		Page 44			Note: The GM_ classes in the current UML are actually copies of the ISO 19107 classes, pending resolution of relationship discrepancies between S-100 and ISO 19107 (and potentially the forthcoming new version of ISO 19107).		
		Page 45			Replaced entire package in the CHS model with a copy of the IGD package from UKHO "S-100" package. Could not copy from V1.0.0 since that too was updated (by CHS?) and does not match the published S-100 1.0.0 or 2.0.0. CHS package from 2.0.0 temporarily saved in a separate file for reference or later updating.	AR: none, information only	
		Page 46			This figure matches 8-18, but compare to 8-6.3.9, which says "S100_IG_Data Type".	AR: Harmonize text and figure either now or in next clarification of S-100.	
		Page 48			CV_DiscretePointCoverage and CV_PointValuePair are classes from the ISO TC211 model.	AR: none, info note only	

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		Page 50			Deleted two duplicates of CV_GridValuesMatrix in the received UML model, retaining the version with the "gridRange" attribute. Replaced the duplicates in the figures in which they appeared and updated internal references in the model to point to the single retained class. If this class differs from the corresponding ISO class it should have an S100_ prefix.	AR: Future action? This Part needs to be harmonized with ISO 19123 anyway.	
		Page 50			Class Vector as in Figure 8-23 in the published text of edition 2.0.0 was not found anywhere in the UML. The printed diagram appears to have an intermediate version or a mixture of 19123:2005 and later definition for Vector. Using Numerics:Vector from ISO 19103. The active standard 19103:2005 has a slightly different name and type for the coordinate/ordinates attribute but the ISO UML model has the version with "ordinates: Number[dimension]". ISO catalogue does not indicate any corrigendum to 19103:2005, but a revision is in progress.	AR: none, explanatory note only	
		Page 51			This note is related to a previous annotation, for CV_GridValuesMatrix		
		Page 52			Package names changed from the PDF of 2.0.0 because that was apparently a legacy, these classes reference another model (ISO?) and have to use those package names (or none).	AR: none, but can add text saying they are from ISO 19115 if desired	
		Page 52			This diagram is similar to Edition 2.0.0 as published, but ought to use S100 classes: S100_Dataset, S100_Metadata, S100_MI_Metadata, the first two of which are defined in the	Low priority item, can be postponed to next revision of S-100	

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					Part 4 packages.		
		Page 54			spelling of Dimension corrected compared to PDF of 2.0.0.	AR: replace the figure in the Word/PDF in the next clarification.	
		Page 55			The classes from the Feature Catalogue model cannot be reproduced exactly as in the published 2.0.0, because the diagram was not updated when the FC model was updated.	AR: Replace figure in next clarification. AR-2: it ought to have the GF class instead of the FC class, since this is a data model not a feature catalogue model	
		Page 55			CV_GridCoordinates misspelled as CV_GridCopordinates in text in 2 places: Part 8, 8-7.2 and 8-7.1.4, on p 25 & 26 of Edition 2.0.0	AR: correction to text in next clarification	
		Page 63			Confirm whether the 2 scale attributes are really supposed to be private attributes.	AR: Fix in next clarification if needed.	
		Page 69			PDF of 2.0.0 has 2 extra classes CoverageAnnotate and CoverageRange, different name for LookupEntry, and CoverageFill is not an abstract class. I assume the latest diagram (this diagram) is accurate and the diagram in the PDF of 2.0.0 needs to be updated.	AR: Clarification to text of 2.0.0, replacing figure 9-11?	
		Page 71			Several classes in this diagram have private attributes, confirm whether this is intentional		
		Page 75			Confirm if the attributes are really supposed to be private		

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		Page 81			AR: Diagrams for Figures 1-14 - 1-16 should be added.		

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