Technical Committee Review Coverage

The role of the Technical Committee in publishing versions or portions of the DDI standard for review or use includes reviewing the content in terms of its adherence to DDI modeling guidelines. Specific versions may have additional guidelines (such as the DDI-Codebook concerning the retention and non-restriction of all existing classes).

References are to the PDF documents on the page Guidelines for Business Modelers.[[1]](#footnote-1)

# Structural Package Content Review:

The purpose of this review is to verify that modeling guidelines have been followed.

|  |  |  |
| --- | --- | --- |
| **Object of Review** | **Rule** | **Guideline Reference** |
| Use of primitives and complex data types | All properties should have a datatype that is either a Primitive or a Complex Data TypeNo relationship can have a Target that is a Primitive or a Complex Data TypeNo property in a Class with an extension base of Identifiable should have any of the following data types (these are limited to use by other Complex Data Types):AnnotationDateBasedOnObjectCommandCommandFileContextLiteralTextLocalIdNonIsoDateTypeResourceIdentifierStringStructuredCommandTextTextContent | **Class Types:** Identifiable, Annotated Identifiable, Complex Data Type**ALERT:** when making changes to Complex Data Types |
| Use of Annotation and contents | All uses of Annotation other than its use in AnnotatedIdentifiable must have a property name that designates the object the annotation describes (i.e. citationOfExternalMaterial) | **Annotation:** Annotation and it's properties |
| Use of appropriate Cardinality | Properties:Always 0..1 or 0..n UNLESS one of the following is true:Default value specifiedFixed value specifiedRequired for class to function and the use of the class is optionalRelationships:Source Cardinality:Composition type: 1..1Aggregation type: 0..1 or 0..nNeither (Simple) type: 0..nTarget Cardinality:0..1 to 0..n UNLESS all of the following is true:Source class is unusable if Target is not providedInformation is available at all production pointsMinimum number of Targets required (i.e. a polygon requires a minimum of 4 points to describe it)When overwriting an inherited relationship the cardinality may NOT be relaxed | **Cardinality:** Properties and Relations |
| Use of Identifiable and AnnotatedIdentifiable | All classes not found in Primitives or Complex Data Types must extend from Identifiable at their baseAll classes with Identifiable at their base must have an independent existence and have a possible relationship to multiple instances of a class or classes (i.e. CodeItem)All classes that extend from AnnotatedIdentifiable must contain content that needs to be discoverable in its own right and expresses intellectual property in and of itself | **Class Types:** Identifiable, Annotated Identifiable, Complex Data Type |
| Consistency in Class structure: Property usage | When overwriting an inherited property the cardinality may NOT be relaxedURN, URL, and URI:All datatype will be xs:anyURIProperty name MUST be “uri” [lower case] UNLESS:A URN or URL is explicitly required ORMultiple properties of type xs:anyURI need to be differentiated by purpose or usage (i.e. uriBlueprint)Text datatypes are limited to the following and usage must match their descriptive usage and structure notes:DynamicTextExternalControlledVocabularyEntryInternationalStringOneCharStringPairedExternalControlledVocabularyEntryInternationalStructuredStringTypedDescriptiveTextValuexs:stringDate datatypes are limited to the following and usage must match their descriptive usage and structure notes:DateDateRangeIsoDateReferenceDateDescriptive properties must be one of the following and contain the standard name, datatype, cardinality, and description. The description of the property may have content added to clarify its use within the specific class. NameDisplayLabelDefinitionPurposeUsageRationaleOverviewDescriptiveTextUse of the property name “description” is NOT ALLOWED | **Property Options:** Usage**Property Options:** Text**Property Options:** Date**Property Options:** Standard |
| Consistency in Class structure: pattern structures | All classes MUST be abstractClasses should NEVER extend from AnnotatedIdentifiableProperties and relationships should be limited to the basic requirements of the class (limit descriptive properties to those required by the role of the class)Classes should NEVER realize another pattern class (they should use it as an extension base) | **Patterns:** Creation and Use |
| Consistency in Class structure: pattern realization | A class that “realizes” a pattern class:MUST contain ALL of the properties and relationships of the pattern class (included those inherited from its extension base). Note that cardinality may be constrained but not relaxed.MUST include the relationship “realizes” with Target Object=[Pattern class name], Description=”Uses pattern for [Pattern class name], Source cardinality=”0..n”, Target cardinality=”1..1”, Relationship type=”Neither”Target Object must be constrained to a non-Pattern subtype of the pattern classIf the Pattern Class has an extension base of Identifiable (directly or inherited) the class MUST extend from Identifiable, AnnotatedIdentifiable, or any class that already realizes the same pattern class.If the Pattern Class is a Complex Data Type (i.e. NOT Identifiable) the realization MUST be placed in ComplexDataType and may have ONLY an extension base of another ComplexDataType realizing the same pattern class OR have no extension base at all.A class may realize more than one pattern class as long as all properties and relationships are included. The “realizes” relationship is not carried into the bindings and therefore does not get overwritten. | **Patterns:** Creation and Use |
| Consistency in Class structure: Documentation within a class | For any inherited property or relationship that is being overwritten by the inheriting class, all original documentation MUST be retained. New content may be addedDefault values: Documentation MUST begin with “Default value is [value].” This may be followed with any additional documentation desiredFixed values: Documentation MUST begin with “Fixed to [value].” This may be followed with any additional documentation desired | **Documenting Classes:** Expanding Documentation in Inheritance**Property Options:** Default and Fixed Values |
| Verify that Design Principles are followed | Classes must conform to the design principles based on the following metrics:1. Documentation
	1. Readability
	2. Acronym usage
	3. Documentation reflects principles and modeling guidelines
2. Design
	1. Proportion of classes that carry forward
	2. Change information
	3. Level of complexity – sufficient but not gratuitous
		1. Balances complexity with functionality and understandability
	4. Compatibility with previous versions
3. Capability
	1. Coverage of existing DDI-C, DDI-L, and GSIM content
 | **Design Principles** |

# Functional View Content Review:

|  |  |  |
| --- | --- | --- |
| **Object of Review** | **Rule** | **Guideline Reference** |
| Content of a Functional View | DocumentInformation is included for all Functional Views intended to be persistent in nature (i.e. XML publication of a codebook for archive purposes)MUST contain:* ONLY classes from published packages
* A clear starting point that allows for the identification and relationship information for all component classes making up the Functional View
* ALL relationship targets except as noted in Functional View documentation
* NO abstract classes
* NO Complex Data Types
* NO orphans (defined as classes unrelated to one or more entry points identified in the documentation, i.e. the contents must hold together as a unified whole)
 | **Functional Views:** Overview**Functional Views:** Requirements and Structure**Functional Views:** Step-by-Step Process |
| Documentation of a Functional View | Documentation of the Functional View MUST provide clear definition of:PurposeUse Case(s)Target Audience (intended users)List of constrained classes with documented usageSpecialized use of classesGeneral documentation on use of the Functional View | **Functional Views:** Requirements and Structure |

1. https://ddi-alliance.atlassian.net/wiki/spaces/DDI4/pages/37552132/Modeling+Guidelines+for+Business+Modelers [↑](#footnote-ref-1)