

DICOM Correction Proposal Form

Correction Number		CP-215
Log Summary: Clarify prohibition on containment of containers across by-reference relationships		
Type of Modification	Name of Standard	
Clarification	PS 3.3 2000	
Rationale for Correction		
There is confusion about the meaning of a single sentence constraint on containment of containers across by-reference relationships.		
Sections of documents affected		
PS 3.3 A.35.3.3.1.2		
Correction Wording:		

A.35.3.3.1 Comprehensive SR IOD Content Constraints

A.35.3.3.1.2 Relationship Constraints

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Table A.35.3-2
RELATIONSHIP CONTENT CONSTRAINTS FOR COMPREHENSIVE SR IOD

Source Value Type	Relationship Type (Enumerated Values)	Target Value Type
CONTAINER	CONTAINS	TEXT, CODE, NUM, DATETIME, DATE, TIME, UIDREF, PNAME, SCOORD, TCOORD, COMPOSITE ¹ , IMAGE ¹ , WAVEFORM ¹ , CONTAINER (See below).
TEXT, CODE, NUM, CONTAINER	HAS OBS CONTEXT	TEXT, CODE, NUM, DATETIME, DATE, TIME, UIDREF, PNAME
CONTAINER, IMAGE ¹ , WAVEFORM ¹ , COMPOSITE ¹	HAS ACQ CONTEXT	TEXT, CODE, NUM, DATETIME, DATE, TIME, UIDREF, PNAME, CONTAINER (See below).
any type	HAS CONCEPT MOD	TEXT, CODE ²
TEXT, CODE, NUM	HAS PROPERTIES	TEXT, CODE, NUM, DATETIME, DATE, TIME, UIDREF, PNAME, IMAGE ¹ , WAVEFORM ¹ , COMPOSITE ¹ , SCOORD, TCOORD, CONTAINER (See below).
TEXT, CODE, NUM	INFERRED FROM	TEXT, CODE, NUM, DATETIME, DATE, TIME, UIDREF, PNAME, IMAGE ¹ , WAVEFORM ¹ , COMPOSITE ¹ , SCOORD, TCOORD, CONTAINER (See below).
SCOORD	SELECTED FROM	IMAGE ¹
TCOORD	SELECTED FROM	SCOORD, IMAGE ¹ , WAVEFORM ¹

Note: 1. Which SOP Classes the IMAGE, WAVEFORM or COMPOSITE Value Type may refer to, is documented in the Conformance Statement for an application (see PS 3.2 and PS 3.4).

2. The HAS CONCEPT MOD relationship is used to modify the meaning of the Concept Name of a Source Content Item, for example to provide a more descriptive explanation, a different language translation, or to define a post-coordinated concept.

For relationships conveyed by-reference, Content Items with a Value Type of CONTAINER shall only be the target of relationships other than CONTAINS, ~~if this relationship is conveyed by-reference.~~

That is, CONTAINS relationships with CONTAINERS may not span by-reference links; containment of directly nested CONTAINERS shall only be conveyed by value.

- Note:**
1. It is legal to have a CONTAINS relationship by-reference to a target that is not a CONTAINER, such as a TEXT or CODE, which itself has immediate or distant descendants that are CONTAINERS, which may then subsequently have CONTAINS relationships by value with CONTAINERS.
 2. The intent of this constraint is to prevent the need arising to follow by-reference links to build up a strict CONTAINS hierarchy of CONTAINERS that are used as headings and subheadings of an outline. Otherwise the outline hierarchy could become a more general graph than a tree, which would be awkward to render. The intent is not to prohibit by-reference relationships to other parts of the tree that may be part of an outline, which is why only the CONTAINS relationship is forbidden in this constraint.
 3. These constraints only apply to by-reference relationships. There is no intent to prohibit CONTAINERS from being the target value types of by-value relationships other than CONTAINS. That is why CONTAINERS are indicated as valid target value types of HAS PROPERTIES, INFERRED FROM and HAS ACQ CONTEXT in Table A.35.3-2.

Relationships by-reference to ancestor Content Items are forbidden in this IOD to prevent loops.