# DICOM Correction Item

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| Correction Number CP-453 | |
| Log Summary: Define Graphic Type Value Set Constraint | |
| Type of Modification<br>Editorial | Name of Standard<br>PS 3.16 |
| Rationale for Correction:<br>There is no formal definition for restriction of the SCOORD Graphic Type values in Templates, although such restriction appears (with incosistent style) in several Templates. | |
| Sections of documents affected<br>PS 3.16 Secion 6.1.9 and Annex A | |
| Correction Wording: | |

*Add new PS3.16 Section 6.1.9.3*

### 6.1.9.3 SCOORD Graphic Type Constraint

Constraints on the value of the Graphic Type (0070,0023) may be specified in the Value Set Constraint field if and only if the Value Type is SCOORD. The constraint may specify a set of allowed values, or a set of disallowed values.

*Modify templates in PS3.16 Annex A to have consistent style*

## TID 1400 Linear Measurement Template

**TID 1400**
**LINEAR MEASUREMENT**
**Type: Extensible**

| | NL | Rel with Parent | VT | Concept Name | VM | Req Type | Condition | Value Set Constraint |
|---|---|---|---|---|---|---|---|---|
| 1 | | | NUM | DCID (7470) "Linear Measurements" | 1 | M | | UNITS = DCID(7460) "Units of Linear Measurement" |
| 2 | > | INFERRED FROM | SCOORD | EV (121055,DCM, "Path") | 1 | UC | XOR Row 5 | **GRAPHIC TYPE = {POLYLINE, CIRCLE, ELLIPSE}** |
| 3 | >> | R-SELECTED FROM | IMAGE | | 1 | MC | XOR Row 4 | |
| 4 | >> | SELECTED FROM | IMAGE | | 1 | MC | XOR Row 3 | |
| 5 | > | INFERRED FROM | SCOORD | EV (121230, DCM, "Path Vertex") | 2-n | UC | XOR Row 2 | **GRAPHIC TYPE = POINT** |
| 6 | >> | R-SELECTED FROM | IMAGE | | 1 | MC | XOR Row 7 | |
| 7 | >> | SELECTED FROM | IMAGE | | 1 | MC | XOR Row 6 | |

## Content Item Descriptions

Row 2 “Path” Path shall represent the measured path or a projection of the measured path in the image. The Graphic Type (0070,0023) of the Path SCOORD shall be:

- an open POLYLINE with two different points (to measure length, diameter, distance, proximity, etc),
- a CIRCLE or ELLIPSE (to measure circumference) or
- an open or closed POLYLINE (closed polygon) to measure path length (open) or perimeter (closed).

Row 5 "Path Vertex" A measured path that traverses two or more images (e.g., the ends of the path are in different cross-sectional plane images) shall be identified by vertices along the path. The Path Vertices shall be ordered by the order of their SCOORD Content Items to identify the measured path. The Graphic Type (0070,0023) of each SCOORD shall be POINT

## TID 1401 Area Measurement Template

**TID 1401**
**AREA MEASUREMENT**
**Type: Extensible**

| | NL | Rel with Parent | VT | Concept Name | VM | Req Type | Condition | Value Set Constraint |
|---|---|---|---|---|---|---|---|---|
| 1 | | | NUM | DCID(7471) “Area Measurements” | 1 | M | | Value shall be > 0<br>UNITS = DCID(7461) “Units of Area Measurement” |
| 2 | > | INFERRED FROM | SCOORD | EV (121056,DCM, “Area Outline”) | 1 | MC | Shall be present if concept name of Row 1 is (121202,DCM, “Area of Defined Region”). May be present otherwise. | GRAPHIC TYPE ~~shall not be~~ **= not {**MULTIPOINT**}** |
| | | | | | | | | |

## TID 1402 Volume Measurement Template

**TID 1402**
**VOLUME MEASUREMENT**
**Type: Extensible**

| | NL | Rel with Parent | VT | Concept Name | VM | Req Type | Condition | Value Set Constraint |
|---|---|---|---|---|---|---|---|---|
| 1 | | | NUM | DCID(7472) “Volume Measurements” | 1 | M | | Value shall be > 0<br>UNITS = DCID(7462) “Units of Volume Measurement” |
| 2 | > | INFERRED FROM | SCOORD | EV (121057,DCM, “Perimeter Outline”) | 1-n | U | | GRAPHIC TYPE ~~shall not be~~ **= not {**MULTIPOINT**}** |
| | | | | | | | | |

**TID 4008 Mammography CAD Breast Geometry Template**

**TID 4008**
**MAMMOGRAPHY CAD BREAST GEOMETRY**
**Type: Non-Extensible**

| | NL | Rel with Parent | VT | Concept Name | VM | Req Type | Condition | Value Set Constraint |
|---|---|---|---|---|---|---|---|---|
| 1 | | | SCOORD | (111007, DCM, “Breast Outline Including Pectoral Muscle Tissue”) | 1 | M | | GRAPHIC ~~DATA~~ TYPE = POLYLINE |
| 2 | > | R-SELECTED FROM | IMAGE | | 1 | M | | Shall reference an IMAGE content item in the (111028, DCM, “Image Library”) |
| 3 | | | SCOORD | (111045, DCM, “Pectoral Muscle Outline”) | 1 | U | | GRAPHIC ~~DATA~~ TYPE = POLYLINE |
| 4 | > | R-SELECTED FROM | IMAGE | | 1 | M | | Shall reference the same node as row 2 |

**TID 4021**
**MAMMOGRAPHY CAD GEOMETRY**
**Type: Non-Extensible**

| | NL | Rel with Parent | VT | Concept Name | VM | Req Type | Condition | Value Set Constraint |
|---|---|---|---|---|---|---|---|---|
| 1 | | | SCOORD | EV(111010, DCM, “Center”) | 1 | M | | GRAPHIC ~~DATA~~ TYPE = POINT |
| | | | | | | | | |

**TID 4107**
**CHEST CAD GEOMETRY**
**Type: Non-Extensible**

| | NL | Rel with Parent | VT | Concept Name | VM | Req Type | Condition | Value Set Constraint |
|---|---|---|---|---|---|---|---|---|
| 1 | | | SCOORD | EV (111010, DCM, “Center”) | 1 | MC | At least one of rows 1,4 shall be present. | GRAPHIC ~~DATA~~ TYPE = POINT |
| | | | | | | | | |