

### DICOM Correction Proposal Form

Tracking Information - Administration Use Only	
Correction Proposal Number	CP-1709
STATUS	Nov 2017 Voting Package
Date of Last Update	12/09/2017
Person Assigned	Bjorn Nolte
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Submission date	26/05/2017

Correction Number	CP-1709
Log Summary: Biopsy Target Values in DICOM Standard attributes	
Type of Modification	Name of Standard
Addition	PS 3.3 - 2017
Rationale for Correction: Biopsy targets are not yet defined for Digital Breast Tomosynthesis. The attributes defined in Mammography Image Module can be reused	
Sections of documents affected PS 3.3	
Correction Wording: n.a.	

*Update PS 3.3,add new Breast Biopsy Target Macro and add this macro to Table A.55-2.*

**Table C.xx-yy. Breast Biopsy Target Macro Attributes**

Attribute Name	Tag	Type	Attribute Description
Biopsy Target Sequence	(0018,2041)	1C	Sequence that identifies the targets of a biopsy procedure. One or more Items are permitted in this Sequence for this frame, where the coordinate system is the same for all Items within a pair of stereo images.  Condition: Required if one or more biopsy targets are present for this frame.
>Target UID	(0018,2042)	1	Unique identifier for the target.  Note  To identify the same target in corresponding stereo images.
>Localizing Cursor Position	(0018,2043)	1	Coordinates of localizing cursor position with respect to pixels in the frame specified by a column (delimiter) row pair. The values shall be in the range 0\0 (TLHC) to Columns\Rows (BRHC).
>Calculated Target Position	(0018,2044)	1	The calculated target position (x, y, z) in mm in an equipment relative right-handed coordinate system where the origin is under the central X-Ray beam at the chest wall, and a z value of zero is located at the surface that the breast is in contact with that is closest to the detector.  X is parallel to the chest wall, y is positive toward the patient's nipple, and z is positive toward the X-Ray source.
>Displayed Z Value	(0018,2046)	1	The z value in mm displayed to the user at the time of biopsy.  Note  1. This may be the same as the z value of Calculated Target Position or different in direction or reference point, such as relative to the compression paddle.  2. This is not the distance that the needle was inserted, particularly for a lateral (parallel) approach.
>Target Label	(0018,2045)	3	Target description.

### **A.55.4 Breast Tomosynthesis Image Functional Group Macros**

Table A.55-2 specifies the use of the Functional Group Macros used in the Multi-frame Functional Groups Module for the Breast Tomosynthesis Image IOD.

**Table A.55-2. Breast Tomosynthesis Image Functional Group Macros**

Functional Group Macro	Section	Usage
Pixel Measures	C.7.6.16.2.1	M
Frame Content	C.7.6.16.2.2	M - May not be used as a Shared Functional Group.
Plane Position (Patient)	C.7.6.16.2.3	M
Plane Orientation (Patient)	C.7.6.16.2.4	M
Referenced Image	C.7.6.16.2.5	U
Derivation Image	C.7.6.16.2.6	C - Required if Image Type (0008,0008) Value 1 equals DERIVED.
Frame Anatomy	C.7.6.16.2.8	M
Identity Pixel Value Transformation	C.7.6.16.2.9b	M
Frame VOI LUT With LUT	C.7.6.16.2.10b	M
Real World Value Mapping	C.7.6.16.2.11	U
Contrast/Bolus Usage	C.7.6.16.2.12	C - Required if the Enhanced Contrast/Bolus Module is present.
X-Ray 3D Frame Type	C.8.21.5.1	M - May not be used as a Shared Functional Group.
<b><u>Breast Biopsy Target</u></b>	<b><u>C.xx.yy</u></b>	U – May not be used as a Shared Functional Group.