

## DICOM Correction Proposal

STATUS	Final Text
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Person Assigned	Ulrich Busch ( <a href="mailto:ulrich.busch@varian.com">ulrich.busch@varian.com</a> )
Submitter Name	Timo Koponen ( <a href="mailto:timo.koponen@varian.com">timo.koponen@varian.com</a> )
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Correction Number	CP-1608
Log Summary:	Clarification for Scan Spot Position Map
Name of Standard	PS 3.3 2016d
Rationale for Correction:	<p>The attribute description of the Scan Spot Position Map (300A,0394) is</p> <p>“The x and y coordinates of the scan spots are defined as projected onto the machine isocentric plane in the IEC GANTRY coordinate system (mm). Required if Scan Mode (300A,0308) is MODULATED. Contains 2N values where N is the Number of Scan Spot Positions (300A,0392).”</p> <p>This definition is ambiguous on how the provided 2N numbers should be interpreted. This could be interpreted to mean a list of x values followed by a list of y values, whereas the correct interpretation is that the values are listed as a sequence of N (x,y) pairs.</p> <p>This change proposal clarifies the specification.</p>
Correction Wording:	<p>“A data stream of (x,y) pairs that define the coordinates of the scan spots, as projected onto the machine isocentric plane in the IEC GANTRY coordinate system (mm). Required if Scan Mode (300A,0308) is MODULATED. Contains 2N values where N is the Number of Scan Spot Positions (300A,0392).”</p>

*In PS 3.3, Section C.8.8.25 RT Ion Beams Module, change the following attribute description*

### **C.8.8.25 RT Ion Beams Module**

The RT Ion Beams Module contains information defining equipment parameters for delivery of external Ion radiation beams.

**Table C.8.8.25-1. RT Ion Beams Module Attributes**

Attribute Name	Tag	Type	Description
Ion Beam Sequence	(300A,03A2)	1	Sequence of setup and/or treatment beams for current RT Ion Plan.  One or more Items shall be included in this Sequence.
>Beam Number	(300A,00C0)	1	Identification number of the Beam. The value of Beam Number (300A,00C0) shall be unique within the RT Ion Plan in which it is created. See Section C.8.8.25.1.

Attribute Name	Tag	Type	Description
...			
>Ion Control Point Sequence	(300A,03A8)	1	Sequence of machine configurations describing Ion treatment beam.  The number of items shall be identical to the value of Number of Control Points (300A,0110).  See Section C.8.8.25.7.
>>Control Point Index	(300A,0112)	1	Index of current Control Point, starting at 0 for first Control Point.
>>Scan Spot Position Map	(300A,0394)	1C	<del>The x and y coordinates of the scan spots are defined as projected onto the machine isocentric plane in the IEC GANTRY coordinate system (mm).</del> <b>A data stream of (x,y) pairs that define the coordinates of the scan spots as projected onto the machine isocentric plane in the IEC GANTRY coordinate system (mm).</b>  Required if Scan Mode (300A,0308) is MODULATED or MODULATED_SPEC. Contains 2N values where N is the Number of Scan Spot Positions (300A,0392).

*In PS 3.3, Section C.8.8.26 RT Ion Beams Session Record Module, change the following attribute description*

### C.8.8.26 RT Ion Beams Session Record Module

Table C.8.8.26-1 specifies the Attributes that describe the measured and recorded settings acquired during Ion Radiation Treatments.

**Table C.8.8.26-1. RT Ion Beams Session Record Module Attributes**

Attribute Name	Tag	Type	Description
Referenced Fraction Group Number	(300C,0022)	3	Identifier of fraction group within referenced RT Ion Plan.
...			
Treatment Session Ion Beam Sequence	(3008,0021)	1	Sequence of setup and/or treatment beams administered during treatment session.  One or more Items shall be included in this Sequence.
>Referenced Beam Number	(300C,0006)	1	References Beam specified by Beam Number (300A,00C0) in Ion Beam Sequence (300A,03A2) in RT Ion Beams Module within the referenced RT Ion Plan.
>Number of Control Points	(300A,0110)	1	Number of control points in Beam.
>Ion Control Point Delivery Sequence	(3008,0041)	1	Sequence of beam control points for current ion treatment beam.

Attribute Name	Tag	Type	Description
			<p>One or more Items shall be included in this Sequence.</p> <p>The number of items shall be identical to the value of Number of Control Points (300A,0110).</p> <p>See Section C.8.8.21.1.</p>
>>Referenced Control Point Index	(300C,00F0)	1	Uniquely identifies Control Point specified by Control Point Index (300A,0112) within the Beam referenced by Referenced Beam Number (300C,0006).
...			
>>Scan Spot Position Map	(300A,0394)	1C	<p><del>The x and y coordinates of the scan spots are defined as projected onto the machine isocentric plane in the IEC GANTRY coordinate system (mm). A data stream of (x,y) pairs that define the coordinates of the scan spots as projected onto the machine isocentric plane in the IEC GANTRY coordinate system (mm).</del></p> <p>Required if Scan Mode (300A,0308) is MODULATED or MODULATED_SPEC. Contains 2N values were N is the Number of Scan Spot Positions (300A,0392).</p>