

From: SAC-PDG-MSDL: Charles Budde [SAC-PDG-MSDL.listmanager@discussions.sisostds.org]
Sent: Tuesday, July 08, 2008 1:47 PM
Subject: RE: MSDL Spec 1.0 & Schema Comment Resolution -- Budde Response

From: "Charles Budde" (cbudde@mitre.org)

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Rob:

Regarding my previous non-concurrence on resolution for Comment #230:

I have no problem with the MSDL specification referencing other approved, recognized standards - in this case MIL-STD-2525B w/Change 1. Unfortunately, I'm just not familiar with its contents, and I didn't take the time to look it up. So thanks for providing the additional clarification with excerpts from MIL-STD-2525B, which alleviated my concern.

Therefore, I withdraw my non-concurrence. I also concur with your proposed textual addition, which I think adds some helpful clarification to the MSDL specification.

Regarding my previous non-concurrence on resolution for Comment #335:

When reviewing the proposed resolution for Comment #335, I missed the text that was added to Section 6.3.2.2.2, Paragraph 1.C), which adequately addressed my concern.

I concur with your proposal to add the same text to Figure 21 and the type definition on Line 2149.

As a side comment, it was initially counter-intuitive to see that the

minInclusive value was numerically greater than the maxInclusive value. But greater precision implies a smaller resolution value. The new text that was added to Section 6.3.2.2.2, Paragraph 1.C), and which you propose to add to two other sections of the MSDL spec, eliminates any possible ambiguity or confusion.

Recommend that the Comment Resolution Version of the MSDL v1.0 specification, including the changes you made in response to my comments, be forwarded to the SISO Standards Activity Committee for final approval.

Once again, thanks to you and the rest of the Comment Resolution Group on the outstanding effort to resolve the 400+ comments on the balloted version of the MSDL v1.0 specification. I think we have a better product as a result.

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From: SAC-PDG-MSDL: Robert Wittman
[\[mailto:SAC-PDG-MSDL.listmanager@discussions.sisostds.org\]](mailto:SAC-PDG-MSDL.listmanager@discussions.sisostds.org)
Sent: Monday, July 07, 2008 2:38 PM
Subject: RE: MSDL Spec 1.0 & Schema Comment Resolution -- Budde Response

From: "Robert Wittman" (rwittman@mitre.org)

*** This message was generated from SAC-PDG-MSDL ***

Charlie et al:

Please review proposals and let me know what you think.

Minor Editorial Fixes:

- * Add period to the end of line 924 on page 40. Agree
- * Add period to the end of line 933 on page 40. Agree
- * Add period to the end of line 1952 on page 84. Agree
- * Remove extraneous period from the end of the first line of the annotation description on line 2206 on page 114. Agree

Editorial Comment:

- * In the annotation description on line 2180 on page 106, believe "SOM = Simulated Object Model" should be changed to "SOM = Simulation Object Model." Agree

Non-Concur on the Proposed Resolution for Following Comments:

* Comment #230, now referring to line 952 on page 41. My comment was to clarify how shape is specified, i.e. one point implies a point, two points implies a line, and 3+ points implies an area. No change was made to the spec in response to my comment, with the proposed resolution saying that it was "up to the application to decide sequence to specify." I believe that one of the primary purposes of a specification is to remove ambiguity, yet the proposed comment resolution invites ambiguity by leaving it up to each application on how to specify/interpret the sequence. Differing interpretations would lead to miscommunication between applications. I think my proposed clarification that one point implies a point, two points implies a line, and 3+ points implies an area is fairly obvious and non-controversial. The only technical issue would be whether the sequence for points for an area required the last point in the sequence to be the same as the first point to close the area, or whether it would be assumed that the last point automatically connected to the first point to close the area. It might also be desirable to specify that the sequence of points for an area describe a "well formed" area. (I forgot the correct mathematical description.)

The paragraph including line 952 page 41 is as follows:

1. msdl:METOCDispositionType/AnchorPoints Element - For every msdl:METOCGraphicType complex type there shall be one AnchorPoints element. This element specifies the structure describing the location,

size and shape (Point, Line or Area) of a specific METOC element. The shape for each specific METOC graphic is specified within Appendix C: METOC Symbolology of MIL-STD-2525B w/Change 1. The AnchorPoints element is an xs:sequence compositor comprised of the elements shown in Figure 40 and described in the following subsections. The domain type is msdl:AnchorPointsType.

The sentence beginning on line 952 states: "The shape for each specific METOC graphic is specified within Appendix C: METOC Symbolology of MIL-STD-2525B w/Change 1." MIL-STD-2525B w/Change 1 is included in the references section as a required reference for this standard. When reviewing Appendix C each METOC graphic is defined by a parameter set that includes the number and type of anchor points. There are over 300 such definitions.

Per 2525B a point shape anchor point is a single point generally associated with the geometric center of the METOC graphic; (For a single point, sequence of placement is not an issue.)

Per 2525B a line shape anchor point has a minimum of two points. The 2 minimal points define the line segment with additional points extending the line segment. The specifics on start end points are defined within App C. There are special case line type anchor points such as that used to define wind, 1st point defines the location of the plot circle; additional points define the wind shaft (direction) and speed with barbs off the main shaft. (For a line or variants thereof 2525B is explicit about sequence in terms of their meanings and direction of start and end symbology.)

Per 2525B an area shape anchor point requires at least 3 points to define the boundary of the area. (For areas 2525B uses the points to define the boundary of the area with the implicit rule that the boundary will be drawn using the sequence with which points are provided.)

Section 6.8.1.5 line 1764 within the MSDDL Specification also uses the AnchorPoints element for Tactical Graphics and also refers to App B within 2525B for giving the explicit scheme for encoding the point, line, and area shapes.

In conclusion, I think 2525B for the METOC graphics is adequate to disambiguate how the points should be interpreted for point and line shapes, but recommend the following to accommodate the sequence issue for areas: "The shape for each specific METOC graphic is specified within Appendix C: METOC Symbolology of MIL-STD-2525B w/Change 1. Area shapes will be interpreted to define a boundary in the sequence

provided by the associated AnchorPoint elements." The last sentence should be added to the appropriate position in Section 6.8.1.5 as well.

* Comment #335, now referring to line 2149 on page 100. My comment was to use consistent units for precision definition. The comment resolution says that the spec was fixed per author's guidance, yet there doesn't appear to be any change in the description for Simple Type `msdl:integerMGRSPrecision1`. The current description implies that the `minInclusive` value is 2 km, while the `maxInclusive` value is 5 meters. Is that correct?

The `msdl:MGRSType/MGRSPrecision` element definition on line 577 defines the value (2-5) to precision mapping. It states:

1. `msdl:MGRSType/MGRSPrecision` Element - For each `msdl:MGRSType` complex type there shall be one `MGRSPrecision` element. The `MGRSPrecision` element specifies the precision or scale of easting and northing values. `MGRSPrecision` can be assigned a value of 2 to define a number using kilometers as its units of measure; a value of 3 to define a number using 100 meters as its units of measure, a value of 4 to define a number using 10 meters as its units of measure, or a value of 5 to define a number using meters as its units of measure. The precision determines how the MGRS value is encoded (padded with leading zeros) in a fixed length string. The domain type is `msdl:integerMGRSPrecision1`.

I recommend adding the following to the Figure 21 on page 25 and the documentation within line 2149

"The precision is defined by assigning a value of 2 to define a number using kilometers as its units of measure; a value of 3 to define a number using 100 meters as its units of measure, a value of 4 to define a number using 10 meters as its units of measure, or a value of 5 to define a number using meters as its units of measure. The precision determines how the MGRS value is encoded (padded with leading zeros) in a fixed length string."

Thanks

Rob

From: SAC-PDG-MSDL: Charles Budde

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Sent: Tuesday, July 01, 2008 1:45 PM

Subject: RE: MSDL Spec 1.0 & Schema Comment Resolution -- Budde Response

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