

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1,2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

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I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER

MIL-STD-2301A (draft)

2. DOCUMENT DATE (YYMMDD)

981001

3. DOCUMENT TITLE

Computer Graphics Metafile (CGM) Implementation Standard For The National Imagery Transmission Format Standard

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

The proposed change adds restricted text and restricted text type to MIL-STD-2301A. This change will require interpreters make the text string fit within a bounding box as defined in the restricted text element. In using the restricted text element, the ISO does not define how the string with fit in the box and a system can default to a small font and meet the requirement without filling out the bounding box. To eliminate this problem the ISO created a CGM version 3 element restricted text type, that tells the interpreter what it must do in filling out the bounding box on receiving a restricted text element. Without the use of this CGM version 3 element (restricted text type) we are limited our ability to fit the text string.

See attachment.

5. REASON FOR RECOMMENDATION

The proposed change rectifies some of the deficiencies of the current profile that have been experienced during the implementation and fielding of NITF2.0. The proposed additions and modifications are intended to help posture future implementations of MIL-STD-2301A for the transition of the standard into an International Standardize Profile (ISP) of CGM.

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IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:

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Recommend that the following changes be made to MIL-STD-2301A:

1. Add the following paragraph and tables after paragraph 5.1.1.5.1

A. Nature of Changes

5.1.1.5.1.a Restricted Text element input. The CGM implementation for NITFS shall provide the capability to input and interpret the Restricted Text element using the following formats. The Delta Width and Delta Height parameters provide the dimension of the bounding box in which the text string must reside. The X and Y parameters give the coordinates of the lower left hand corner of the text string. The flag parameter is an integer (1) indicating that this is the final text in the string. The length parameter is an unsigned byte containing the number of characters in the string. Finally, the text is given as a character string C1, C2, ... Cn with length n. If necessary, the last byte is padded with a zero so the next command begins on a word boundary.

TABLE XLIIIA. Restricted Text padded, short form input.

MSB	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
	4					5							parameter length			
	Delta Width															
	Delta Height															
	X															
	Y															
	1															
	length = n (even)									C1						
	C2									:						
	Cn									0						

TABLE XLIIIB. Restricted Text nonpadded, short form input.

MSB	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
	4					5							parameter length			
	Delta Width															
	Delta Height															
	X															
	Y															
	1															
	length = n (odd)								C1							
	C2								:							
	C(n-1)								Cn							

TABLE XLIIIC. Restricted Text padded, long form input.

MSB	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		
	4					5							31					0X40BF
	parameter length																	
	Delta Width																	
	Delta Height																	
	X																	
	Y																	
	1																	
	length = n (even)									C1								
	C2									:								
	Cn									0								

TABLE XLIIC. Restricted Text nonpadded, long form input.

MSB																	
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		0X40BF
4					5							31					
parameter length																	
Delta Width																	
Delta Height																	
X																	
Y																	
1																	
length = n (even)										C1							
C2										:							
C(n-1)										Cn							

B. Rationale For Recommendation

Experience with the field use of NITFS systems indicates the need to allow the use of this feature.

2. Add the following paragraph and tables after paragraph 5.1.2.5.1

A. Nature of Changes

5.1.2.5.1.a Restricted Text element output. The CGM implementation for NITFS shall provide the capability to generate and output the Restricted Text element using the following formats. The Delta Width and Delta Height parameters provide the dimension of the bounding box in which the text string must reside. The X and Y parameters give the coordinates of the lower left hand corner of the text string. The flag parameter is an integer (1) indicating that this is the final text in the string. The length parameter is an unsigned byte containing the number of characters in the

string. Finally, the text is given as a character string C1, C2, ... Cn with length n. If necessary, the last byte is padded with a zero so the next command begins on a word boundary.

TABLE XCVIII. Restricted Text padded, short form output.

MSB	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
4			5						parameter length							
Delta Width																
Delta Height																
X																
Y																
1																
length = n (even)								C1								
C2								:								
Cn								0								

TABLE XCVIII.B. Restricted Text nonpadded, short form output.

MSB

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
4			5					parameter length							
Delta Width															
Delta Height															
X															
Y															
1															
length = n (odd)								C1							
C2								:							
C(n-1)								Cn							

TABLE XCVIIIC. Restricted Text padded, long form output.

MSB																	
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		
4					5							31					0X40BF
parameter length																	
Delta Width																	
Delta Height																	
X																	
Y																	
1																	
length = n (even)									C1								
C2									:								
Cn									0								

TABLE XCVIIIC. Restricted Text nonpadded, long form output.

MSB																	
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		
4					5							31					0X40BF
parameter length																	
Delta Width																	
Delta Height																	
X																	
Y																	
1																	
length = n (even)									C1								
C2									:								
C(n-1)									Cn								

B. Rationale For Recommendation

Experience with the field use of NITFS systems indicates the need to allow the use of this feature.

3. Change paragraph 5.2.2.1.20 and 5.2.2.1.25 for Restricted Text input.

A. Nature of Changes

5.2.2.1.20 Text and Restricted Text Elements required for input. The CGM implementation for NITFS shall be able to input and interpret the Text and Restricted Text elements with text string parameter length at least 254 characters.

5.2.2.1.25 Input Text and Restricted Text Elements. The CGM implementation for NITFS shall be able to input and interpret the Text and Restricted Text elements using the following attributes:

B. Rationale For Recommendation

Experience with the field use of NITFS systems indicates the need to to allow the use of this feature.

4. Change paragraph 5.22.2.19 and 5.2.2.2.24 for Restricted Text output.

A. Nature of Changes

5.2.2.2.19 Text and Restricted Text Elements required for output. The CGM implementation for NITFS shall be able to generate and output the Text and Restricted Text elements with text string parameter not to exceed 254 characters.

5.2.2.2.24 Output Text and Restricted Text Elements. The CGM implementation for NITFS shall be able to generate and output the Text and Restricted Text elements using the following attributes. The following attributes must be stated before the first use of the text element but need not be restated for subsequent occurrences unless a different attribute value is required.

B. Rationale For Recommendation

Experience with the field use of NITFS systems indicates the need to allow the use of this feature.

5. Add the following paragraph and tables after paragraph 5.1.1.4.13

A. Nature of Changes

5.1.1.4.14 Restricted Text Type element input. The CGM implementation for NITFS shall provide the capability to input and interpret the Restricted Text Type element using the following formats. The index Restriction_Type can be basic (1), boxed-cap (2), boxed-all (3), isotropic-cap (4), isotropic-all (5) and justified (6).

TABLE XLA. Restricted Text Type input.

MSB															
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
5					42						2				
Restriction_Type															

B. Rationale For Recommendation

Experience with the field use of NITFS systems indicates the need to to allow the use of this feature.

6. Add the following paragraph and tables after paragraph 5.1.2.4.13

A. Nature of Changes

5.1.2.4.14 Restricted Text Type element output. The CGM implementation for NITFS shall provide the capability to generate and output the Restricted Text Type element using the following formats. The index Restriction_Type can be basic (1), boxed-cap (2), boxed-all (3), isotropic-cap (4), isotropic-all (5) and justified (6).

TABLE XCVIIA. Restricted Text Type output.

MSB															
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
5					42						2				
Restriction_Type															

B. Rationale For Recommendation

Experience with the field use of NITFS systems indicates the need to to allow the use of this feature.

7. Add the following after paragraph 5.2.2.1.19

A. Nature of Changes

5.2.2.1.19a Restricted Text Type required for input. The CGM implementation for NITFS shall be able to input and interpret the following Restriction Types basic (1), boxed-cap (2), boxed-all (3), isotropic-cap (4), isotropic-all (5) and justified (6).

8. Add the following after paragraph 5.2.2.2.17

A. Nature of Changes

5.2.2.2.17a Restricted Text Type required for output. The CGM implementation for NITFS shall be able to generate and output the following Restriction Types basic (1), boxed-cap (2), boxed-all (3), isotropic-cap (4), isotropic-all (5) and justified (6).

The following is an example of the Restricted Text Type Element attributes:

RESTRICTED TEXT TYPE

Method	Text	Box	Result
basic	Dog	<div></div>	<div>Dog</div>
box-cap	Dog	<div></div>	<div>Dog</div>
box-all	Dog	<div></div>	<div>Dog</div>
isotropic-cap	Dog	<div></div>	<div>Dog</div>
isotropic-all	Dog	<div></div>	<div>Dog</div>
justified example 1	What is this	<div></div>	<div>What is this</div>
justified example 2	What is this	<div></div>	<div>What is this</div>