

WebCGM v2.0 Errata 02

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Technical Committee:

OASIS CGM Open WebCGM TC

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Related Work:

These errata apply to

WebCGM 2.0 OASIS Standard,

which is identical in technical content to:

<u>WebCGM 2.0 W3C Recommendation</u>, available at http://www.w3.org/TR/2007/REC-webcgm20-20070130/ .

Abstract:

Computer Graphics Metafile (CGM) is an ISO standard, defined by ISO/IEC 8632:1999, for the interchange of 2D vector and mixed vector/raster graphics. WebCGM is a profile of CGM, which adds Web linking and is optimized for Web applications in technical illustration, electronic documentation, geophysical data visualization, and similar fields. First published (1.0) in 1999 and followed by a second (errata) release in 2001, WebCGM unifies potentially diverse approaches to CGM utilization in Web document applications. It therefore represents a significant interoperability agreement amongst major users and implementers of the ISO CGM standard.

WebCGM 2.0 adds a DOM (API) specification for programmatic access to WebCGM objects, and a specification of an XML Companion File (XCF) architecture, for externalization of non-graphical metadata. WebCGM 2.0, in addition, builds upon and extends the graphical and intelligent content of WebCGM 1.0, delivering functionality that was forecast for WebCGM 1.0, but was postponed in order to get the standard and its implementations to users expeditiously.

The design criteria for WebCGM aim at a balance between graphical expressive power on the one hand, and simplicity and implementability on the other. A small but powerful set of standardized metadata elements supports the functionalities of hyperlinking and document navigation, picture structuring and layering, and enabling search and query of WebCGM picture content.

Status:

This document was last revised or approved by the OASIS CGM Open WebCGM TC on the above date. The level of approval is also listed above. Check the current location noted above for possible later revisions of this document. This document is updated periodically on no particular schedule.

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1.0 E01 -- editorial errors in WebCGM 2.0 XCF DTD

2.0 E02 -- "inherit" value missing from DTD snippet in XCF 'grobject' definition

2.1 E02 overview:

In section 4.3.5 'grobject', change

In the XCF DTD snippet for the 'grobject' element (section 4.3.5), the attribute declaration for the 'visibility' attribute is missing the "inherit" value. This mistake is not repeated for any of the other elements (layer, para, etc.) of section 4.3. The 'visibility' attribute declaration is also correct in the complete XCF DTD of section 4.4, and is correct as well in the complete external DTD file.

2.2 E02 changes to WebCGM v2.0 OS text:

```
visibility ( on | off) #IMPLIED

to
visibility ( on | off | inherit) #IMPLIED
```

3.0 E03 -- ambiguous applicability of "1024" limit in CLOSED FIGURE (PPF)

3.1 E03 Overview:

In T.15.4 of section 6.4, WebCGM 2.0 limits the number of elements within a CLOSED FIGURE to 1024. The limit is meant to apply to graphical primitive elements, as indicated in discussion by one of the Model Profile authors: "There is no logical reason to include attribute elements. The purpose of the limit is to make predictable the resource requirements of the viewer, and attribute elements have negligible bearing on that."

This qualification is not explicitly stated in the PPF as written (T.15.4 in section 6.4). Therefore, although it

would be contrary to the rationale for the limit, it could be read as limiting the total of all kinds of elements. Whereas the ultimate solution would involve clarifying the Model Profile with a CGM:1999 defect correction, the practical companion solution is for the working profiles (WebCGM, ATA, etc) to clarify it, as it seems to have been almost universally assumed.

3.2 E03 changes to WebCGM v2.0 OS text:

In the row that immediately follows the row containing "T.15.4" in <u>section 6.4</u>, in the WebCGM Profile column (the middle column) change

Other: None.

to

Other: Note that the 1024 element limit applies to the maximum number of graphical primitive elements. Eligible elements of classes other than graphical primitives that are included within the CLOSED FIGURE, e.g., primitive attribute elements, do not count against the 1024 limit.

4.0 E04 -- ambiguity on position of radius in degenerate elliptical arc close

4.1 E04 overview:

T.26.10 in WebCGM 2.0 section 6.15 adopts for WebCGM the treatments of degenerate graphical primitives that are recommended in annex D of CGM:1999. CGM:1999 D.4.5.12 specifies that coincident start ray and end ray in ELLIPTICAL ARC CLOSE should result (among other things) in drawing of a radius. It is implicit, but not explicitly stated, that the radius is drawn along the coincident start-end rays—this is the only location that fits the rationale behind the choice of fallbacks for such degeneracies. (Ultimately, there should be a CGM:1999 defect correction to put the explicit statement into D.4.5.12.)

4.2 E04 changes to WebCGM v2.0 OS text:

Clarify in T.26.10 of <u>WebCGM 2.0 section 6.15</u> that the drawn radius is along the start-end rays. In the row following the line containing "T.26.10", add to the WebCGM Profile column (the middle column) the following:

Note. For degenerate ELLIPTICAL ARC CLOSE, the radius specified in D.4.5.12 is drawn along the coincident start-end rays.

5.0 E05 -- wrong case in 'apsid' usage in example 5.1b

5.1 E05 overview:

In XCF definition of Chapter 4, all element names in <u>section 4.3</u>, and their associated attributes, are lower case. This includes 'apsid' attribute that occurs on many of the 4.3 elements. In example 5.1b of <u>section 5.3</u>, camel-case is used for 'apsid'. This is incorrect XCF according to <u>section 4.3</u>, and must be fixed.

There are other occurrences of the camel-case 'apsId' usage in Chapter 5. In section 5.7.5 it appears as 'apsId' in a parameter name for a method, which is more or less harmless. In section 5.7.6 the attribute of the object is defined as 'apsId' (READONLY). While this might be bad practice to write it differently than in Chapter 4, in the specific context of these XCF and the DOM definitions, it will not lead to implementation problems in practice. Whereas changing to lower-case would invalidate existing DOM scripts.

The minimal fix is to fix 5.1b, and leave the other occurrences.

5.2 E05 changes to WebCGM v2.0 OS text:

In example 5.1b of section 5.3, change 'apsId' to 'apsid'.

6.0 E06 -- case insensitivity of <param> attribute values

6.1 E06 overview:

It is implicit in WebCGM 2.0 section 3.4, but never stated explicitly, that the values of the attributes of the ram> element are case insensitive. See for example the various treatments of 'middle' in the text and examples. This is consistent with the Ch.6 PPF convention of case insensitivity wherever possible in non-graphical text. See, for example, the sub-strings of the METAFILE DESCRIPTION element (T.16.2 of section 6.5) and the font names in the FONT LIST element (T.16.13 of section 6.5). Comparison of WebCGM 1.0 section 3.4 also shows additional case-insensitivity assumption.

6.2 E06 changes to WebCGM v2.0 OS text:

In <u>section 3.4</u>, add to the end of the paragraph that immediately precedes the definition list of <param> definitions, i.e., immediately before the line "onload: <eventHandlerName(evt)>":

The names and the permissible values are case-insensitive, with the single exception of the value of the 'onload' <param> (which identifies the event handler script function that is to be invoked upon the onload event, represented below as"<eventHandlerName(evt)>".

7.0 E07 -- typo in LINE TYPE entry in PPF

7.1 E07 overview:

There is a transcription error in T.20.2 of section 6.9, the LINE TYPE element. In the Model Profile column (the middle column), the "negative values" specification is applicable to [v3] and [v4] metafiles, not just [v3] metafiles. The transcription error was fixed in the Model Profile column (right-hand column) during publication of 2.0, but was overlooked in the WebCGM Profile column (middle column).

7.2 E07 changes to WebCGM v2.0 OS text:

In the row after the row containing "T.20.2" in <u>section 6.9</u>, in the WebCGM Profile column (the middle column), change

For [v3] metafiles

to

For [v3] and [v4] metafiles