

[Day 3 Draft] Minutes of the Geneva, CH, Meeting of

ISO/IEC JTC 1/SC 34/WG4, 2017-11-14/16

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2017-11-16

1. Opening remarks

The meeting started at 10:05 on 2017-11-14. The convener, Murata-san, welcomed everyone to the 30th face-to-face meeting of WG4.

2. Roll call of delegates

The following members were present during part or all of the meeting:

Name	Present	Affiliation	Employer/Sponsor
Makoto Murata		WG4 Convener, JP	International University of Japan
Rex Jaeschke		Ecma, Project Editor	Consultant
Rich McLain		Ecma	Microsoft
Aarti Nankani		Ecma	Microsoft
Francis Cave		GB	Francis Cave Digital Publishing

Present were 5 people, from 2 NBs and 1 liaison.

3. Adoption of the agenda [SC 34/WG4 N 0384]

The agenda was adopted, as distributed.

4. Administration

Approval of Previous Meeting Minutes [WG4 N 0385]

The draft minutes were approved, as circulated.

Outstanding Action Items

1. Murata-san to address the editorial issues raised by ITTF re the DIS 30114-2 specification. **Done**

Report from the WG4 Secretariat

Various NBs and liaisons have registered delegates to WG4. All requests for additions, deletions, and changes to the delegate list should be done via LiveLink, with mail to the WG4 Secretariat (rex@RexJaeschke.com), so the corresponding changes can be made to the WG4 email list.

The WG4 email list is e-SC34-WG4@ecma-international.org. The document repository is now at <http://isotc.iso.org/livelink/livelink?func=ll&objid=8912947&objaction=ndocslst>.

5. Defect Reports

The public, online DR log is at

<https://onedrive.live.com/?cid=c8ba0861dc5e4adc&sc=documents&id=C8BA0861DC5E4ADC%21105>. Access individual DRs via the hyperlinks contained within the spreadsheet's left-most column.

DR 13-0014 "PML: omissions and inconsistencies in the specification of attributes"

New questions for MS experts re animMotion:

1. Does the ptsTypes attribute always contain a list of ptsTypes whose length is determined by the number of segments in the path?
2. Can the ptsTypes attribute contain an empty list, ""?

New question for MS experts re cmd:

3. Please confirm that if @cmd is omitted or has an empty string value, regardless of the value of @type, the element has no effect and is equivalent to the element being omitted, and that no other interpretation makes sense.

Assigned to Aarti.

Action: Murata-san to create a default value for @type on the element cmd.

DR 15-0020 "WML: Make clear where in transitional WML can VML occur"

Assigned to Aarti (see new questions at end of DR log entry.)

DR 16-0022 "Shared ML: Escaping strings in ST_Xstring"

We agreed to the following changes:

Part 1: §22.9.2.19, "ST_Xstring (Escaped String)"

String of characters with support for escaped invalid-XML characters.

For all characters which cannot be represented in XML as defined by the XML 1.0 specification, the characters are escaped using the Unicode numerical character representation escape character format `_xHHHH_`, where H represents a hexadecimal character in the character's value. [Example: The Unicode character 8 is not permitted in an XML 1.0 document, so it must be escaped as `_x0008_`. end example]

For each string matching the escape character format `_xHHHH_`, the first underscore character shall itself be escaped. [Example: In order for the string “SW x3850 CPU” to be interpreted literally, it would be expressed as “SW x005f x3850 CPU” or “SW x005F x3850 CPU”. end example]

This simple type's contents are a restriction of the W3C XML Schema string datatype.

...

Closed in COR4.

The submitter, Charlie, reported via email that he is happy with this.

DR 16-0024 “SML: Styles Issues”
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Item 1): Agreed

Part 1, §18.3.1.4, “c (Cell)”, p. 1593

[Example: This example shows the information stored for a cell whose address in the grid is C6, whose style index is '~~6~~1', and whose value metadata index is '15'. The cell contains a formula as well as a calculated result of that formula.

Item 2): Change, as follows:

Part 1, §18.3.1.4, “c (Cell)”, attribute s (style index), p. 1594

Attributes	Description
s (Style Index)	The index of this cell's style. <u>The zero-based index of the style record associated with this cell.</u> Style records are stored in the Styles Part. <u>The index references an xf record in the CellXfs collection.</u> ...

Item 3: Change, as follows:

Part 1, §18.8.45, “xf (format)”, attribute xfld (Format Id), pp. 1800–1801

Attributes	Description
xfld (Format Id)	For xf records contained in cellXfs this is the zero-based index of an xf record contained in cellStyleXfs corresponding to the cell style applied to the cell Not present f For xf records contained in cellStyleXfs, this attribute shall not be specified

Closed in COR4.

The submitter, Sam, is okay with our response.

DR 16-0025 “Primer: Part 4 stuff”

We agreed with Rex’s proposed approach. Closed in REV3.

DR 17-0002 “PML: sld is missing its attributes”

After some discussion, we clarified the original request, MS experts’ response, and what was really needed. Of the three different slds, only one needs work, that in §19.3.1.38. It needs an attribute table and a note containing a reference to the corresponding complex type; using the following template:

Part 1: §19.3.1.38, “sld (Presentation Slide)”

...

Attributes	Description
show (xx)	xxx
showMasterPhAni m (xx)	xxx
showMasterSp (xx)	xxx

[\[Note: The W3C XML Schema definition of this element’s content model \(\[CT_Slide\]\(#\)\) is located in §A.x. *end note*\]](#)

Aarti will work with her experts to fill in the blanks.

DR 17-0003 “DML: Some elements are never referenced”

Questions for MS experts: Are these elements actually saved as part of a document? If so, in which contexts? If not, we presume they can be removed from the spec.

DR 17-0004 “DML: element nvContentPartPr exists in the schema but not in prose”

Yes, this is a known issue, but has low priority.

DR 17-0005 “SML: ref and dateCompatibility attributes missing from prose”

Attribute ref does look to be a problem, but all traces of dateCompatibility were supposed to be removed with AMD2. Perhaps the problem lies in their being a difference between the printed schema in the annex (which does *not* have this problem) and the electronic version of the schema.

Murata-san checked the schemas in recent editions of 19500 and found that the RNG schemas mistakenly keep the dateCompatibility attribute. The XSD schemas are fine. He will remove this attribute from the RNG schemas.

DR 17-0008 “Shared ML: version attribute of vstream is missing from prose”

Q to MS experts: Currently, version attribute vstream is in the strict schema, but is not documented in prose. Should that attribute be there? If so, please provide a textual version of its definition.

Assigned to Aarti.

DR 17-0009 “SML: need sort method for special characters”

Rex will contact CN delegates asking them to test the sheets mentioned in the DR log w.r.t various locales.

If we can't make further progress on this, we might just make it implementation-defined behavior.

DR 17-0010 “VML: Attribute examples”

Murata-san presented his plan for resolving this issue. First, he'll add the following subclauses, which because they are the end of their parent clauses, will not adversely affect section numbering.

19.1.4 Attribute Groups

- 19.1.4.1 General.....
- 19.1.4.2 AG_AllCoreAttributes.....
- 19.1.4.3 AG_AllShapeAttributes
- 19.1.4.4 AG_Chromakey
- 19.1.4.5 AG_CoreAttributes.....
- 19.1.4.6 AG_Ext.....
- 19.1.4.7 AG_Fill
- 19.1.4.8 AG_Id.....
- 19.1.4.9 AG_OfficeCoreAttributes
- 19.1.4.10 AG_OfficeShapeAttributes
- 19.1.4.11 AG_ShapeAttributes.....
- 19.1.4.12 AG_StrokeAttributes
- 19.1.4.13 AG_Style

Then he'll move one copy of each attribute group to the corresponding new subclause, and he'll delete all the duplicates without change tracking. He'll add the necessary customized text to each affected element to point to its corresponding attribute group subclause.

Closed in REV3.

DR 17-0013 "SML: Make clear where in transitional SML can VML occur"

Assigned to Aarti. (See new question at end of the DR log.)

DR 17-0014 "PML: Make clear where in transitional PML can VML occur"

Assigned to Aarti. (See new question at end of the DR log.)

DR 17-0016 "SML: Reference Sequence (sqref) Examples"

(See the DR log for the email thread during this meeting.)

Response to Charlie:

We agree that the term "range" is not well-defined in SML, and this leads to confusion in several cases, including those you mention, as to whether "range" means a single cell or a single contiguous range of cells or a list containing several of these. This needs to be clarified and we will investigate further with Microsoft experts.

Question to Microsoft experts:

In SML the attribute sqRef on elements such as dataValidation applies to a "range", but it is not clear whether "range" includes the possibility of a single cell or a list of ranges, e.g. sqRef="A1 B2:C3". Please can you clarify in each case where sqRef is used?

DR 17-0017 “SML: Column Width and Formatting”

(See the DR log for the email thread during this meeting.)

Response to Charlie:

Thank you for your more detailed explanation of the problem. This is an excellent contribution, thank you. We will need to ask Microsoft experts to respond, as this is a complex problem and we cannot rely upon our own understanding.

Question to Microsoft experts:

Help!!!

DR 17-0019 “SML: Order of Elements in schemeClr”

We agreed in principle with Francis’ proposed approach: some new normative and informative text to clarify things, but that we wouldn’t further specify the possible permutations. It appears that the resolution to this DR will also satisfy DR 17-0028.

Here is Francis’ proposed resolution of both DR 17-0019 and DR 17-0028. The DR text is largely the same, because they both concern the same element, schemeClr, specified in §20.1.2.3.29. There is tutorial text about color spaces in §L.4.1.5 and about color transforms in §L.4.8.3. As I have stated previously, the fact that color transforms can be used in combinations is not clearly explained anywhere, and there is only one example (in §20.1.2.3.16) of more than one color transform element being used in combination.

I have thought about adding references from the normative text in §20.1.2.3 to the Primer, but this would be inconsistent - I cannot find any specific references from normative text to the Primer. Instead, I propose to add some more normative text to provide some cross-references to the main elements for specifying colors.

Here is revised text for the introduction to §20.1.2.3, based upon my earlier contribution

Part 1: §20.1.2.3, “Colors”

~~Given its own section within DrawingML Basics,~~ Colors are an integral part of the DrawingML framework. Colors are used in virtually every object to help describe its appearance when it is rendered on the screen. Since not

every generating application wishes to represent color in the same manner, it is possible to specify color in a number of different ways.

A color is specified by a base color value, which may optionally be modified by one or more color transforms. A base color value is specified in accordance with one of the following color models:

- Red, Green, Blue (RGB) color model, with values expressed either as percentages (§20.1.2.3.30) or as hex digits (§20.1.2.3.32)
- Hue, Saturation, Luminance (HSL) color model (§20.1.2.3.13)
- Scheme-based color model (§20.1.2.3.29)
- Color Presets color model (§20.1.2.3.22)
- Operating system color model (§20.1.2.3.33)

A base color may be modified by one or more transforms. The effect of specifying a color using a combination of several transforms is application-dependent.

[Note: When combining multiple color transforms, the order in which the transforms are specified is likely to be significant in terms of how the color is rendered by the application. end note]

I propose that there should be some additional guidance in the Primer on these points.

Part 1, §L.4.1.5, “Colors”

...

These different models allow document authors the choice as to which color model would be appropriate for their particular application. Each of these is detailed within the DrawingML Basics reference material. For further guidance see §L.4.8.2.

...

Part 1, §L.4.8.2 Color Models

There are several methods of expressing color: `scrgbClr`, `srgbClr`, `hslClr`, `sysClr`, `schemeClr`, and `prstClr`. Although `srgbClr` is the most commonly used model, the rationale for having various equivalent color models stems from a desire to have different ways of naturally expressing a color choice. A color may

also be expressed by specifying a base color using any of the above methods and transforming this in a systematic way using one or more color transforms. For further guidance on color transforms see §L.4.8.3.

...

Part 1, §L.4.8.3 Color Transforms

...

- invGamma: Yields the inverse sRGB gamma shift of its input color.

Any number of color transforms may be combined in order to modify a base color. The order in which the color transforms are specified is significant in terms of the end result of the transformation. The effect is application-dependent and may or may not make sense in specific cases.

Our current thinking is that Charlie is objecting to the design when we don't see our job as proposing changes to that. Rather, we're trying to clarify the way it currently is. Certainly, the discussion has been most educational.

Overnight, Charlie responded, as follows:

Please don't forget that I hit a compatibility roadblock to get the ball rolling on this. I very much appreciate the new information about colour models but I think that roadblock is still there waiting for the next implementation. I provided an example from elsewhere in the schema where a similar situation was handled using a sequence: ambiguity removed and I'm a happy developer. I seem to remember Murata explaining the difference in scope especially when a schema change is requested. Does that apply here? Can Microsoft's experts confirm that lumMod must precede lumOff to be effective? And is this true for other pairs: alpha, blue, green, hue, red and sat. Might it make sense to recast this part as a separate DR: handling element order in ElementGroups?

Our response: Currently the DML color feature allows color transforms to be combined in any order and any number of times. If we were to change the schema to restrict either the number or order of color transforms, there is a risk that existing documents would become non-conformant. It is established practice that we don't make changes to the schema that involve this risk, unless there is clearly an error. In this case it isn't an error as such, but a design feature.

In any case, replacing a choice with a sequence would significantly reduce the number of options, probably to too great an extent. It might disallow combinations of color transforms that don't make any sense, but it would almost certainly disallow combinations that would make sense in some circumstances. So, a simple replacement of a choice group with a sequence group would not, in our opinion, achieve an acceptable result.

Certainly, the standard allows combinations of color transforms that don't make sense, but as things stand the standard can express ALL combinations that do make sense, so the design is satisfactory from that point of view, even if it allows too much flexibility from other points of view.

We now agree that this issue cannot be taken any further by WG4. Closed in COR4.

DR 17-0021 “DML: wild cards in the complex type CT_GraphicalObjectData of dml-main.xsd and dml-main.rnc”

We agreed with the “strict”-to-“lax” change.

Murata-san will look at the RELAX NG issue.

DR 17-0023 “WML: Attributes defined in attribute groups are duplicated in many places”

Agreed with Murata-san’s proposal. Closed without action.

DR 17-0024 “SML: Attributes defined in attribute groups are duplicated in many places”

Agreed with Murata-san’s proposal. Closed without action.

DR 17-0025 “PML: Attributes defined in attribute groups are duplicated in many places”

Agreed with Murata-san’s proposal. Closed without action.

DR 17-0026 “DML: Attributes defined in attribute groups are duplicated in many places”

Agreed with Murata-san’s proposal. Closed without action.

DR 17-0028 “DML: Order of elements in schemeClr seems to matter”

See DR 17-0019.

DR 17-0029 “SML: Quoting of Worksheet Names Containing Periods”

Assigned to Aarti. (See new information at end of the DR log.)

DR 17-0031 “WML: Spacing Between Paragraphs”

As this is a shortcoming in an implementation, this DR is closed without action.

DR 17-0032 “WML: After-Paragraph Spacing”

As this is a shortcoming in an implementation, this DR is closed without action.

DR 17-0033 “Shared MLs: OMML editorial errors”

Agreed; Closed in COR4.

DR 17-0034 “Shared MLs: OMML term definitions”

After a short discussion, we agree that more work is needed.

DR 17-0035 “Shared MLs: OMML n-ary operator”

After a short discussion, we agree that more work is needed.

DR 17-0036 “Shared MLs: OMML various issues”

We have proposed solutions, but these need review.

DR 17-0037 “Shared MLs: OMML element sub”

After a short discussion, we agree that more work is needed.

6. OPC Revision

XAdES

See Murata-san’s emails of 2017-10-25 and 2017-11-10, “Proposal: Use of XAdES EN in the revision of OPC”.

At the meeting, Murata-san first explained the current status of the ISO profile (ISO 14533-2) of XAdES. Five years have passed since the publication of ISO 14533-2, which is based on XAdES 1.3.2. A systematic review ballot will be closed on 2017-12-04. It is not clear if this standard will be confirmed, cancelled, or revised. If it is revised, it is likely to be based on XAdES EN, but JNSA intends to make the MimeType attribute optional.

Murata-san then explained OPC conformance. It is purely syntactical. In other words, there are no conformance requirements on programs including digital signature verification.

Murata-san then explained his personal draft of a new clause defining a new digital signature framework. It is dedicated to DSig 1.1, XAdES EN, and hash algorithms beyond SHA-1. An existing clause is intended to continue to define a digital signature framework for DSig 1.0 and SHA-1. These two frameworks are distinguishable since the new framework introduces a new relationship type. Although he argued that this new relationship type guarantees that existing implementations silently ignore the new framework, Microsoft would need some time to review this with the Digital Signatures team and they would need to do in-depth testing to confirm the same or provide additional input.

How should we go forward? Murata proposed some possible options.

- Option 1: Wait for the conclusion of the XAdES profile discussion, and then continue the OPC revision.
- Option 2: Create an OPC CD incorporating Murata-san’s personal clause, disallow the use of the MimeType attribute, and start a CD ballot to solicit feedbacks from ETSI.
- Option 3: Detach XAdES-related additions from the current OPC revision.

Francis pointed out that our schedule for the revision is tight and that we have already extended it by a year. WG4 experts agreed to adopt Option 3, so that the current project for the OPC revision is not cancelled by ITTF for missing the target date.

CD Schedule

Murata-san aims to complete a draft of a new WD by 2017-12-31. Then Rex will update the annex per DR 13-0002. At the 18-03 F2F meeting, we'll try to complete that WD and push it out for a 60-day ballot soon after. That allows us to process ballot comments at the 2018-06 F2F meeting. Assuming a second CD is not needed, we can push out an FDIS ballot at the 2018-06 meeting.

7. Other Business

29500-1 and 29500-4 WDs

Soon, Rex will start work on 29500-1 WD1, which will incorporate the resolutions for all closed DRs impacting Part 1. He plans to track the changes. He expects to be able to deliver this by the 2018-03 F2F meeting.

Once Murata-san has implemented the resolution of DR 17-0010, he'll hand back ownership of 29500-4 to Rex, who will then produce 29500-4 WD1, which will incorporate the resolutions for all closed DRs impacting Part 4. He plans to track the changes. He expects to be able to deliver this by the 2018-03 F2F meeting.

Thanks

We thanked Ecma International and Patrick/Istvan for hosting this meeting, and for the Ecma coffee mugs.

8. Future meetings

Face-to-Face Meetings:

- 2018-03-5/9 in Prague, CZ (WG4, possibly with other WGs)
- 2018-06-4/8 in London, UK (WG4, possibly with other WGs)
- 2018-09-10/14 Seattle, US (with other WGs, and Opening/Closing Plenaries)

Teleconferences:

- 2017-12-13 (Wed/Thu), 21:00 GMT (US/PT 13:00, GB 21:00, DE/DK/FR/CZ 22:00, JP 06:00 next day)
- 2018-01-31 (Wed/Thu), 21:00 GMT (US/PT 13:00, GB 21:00, DE/DK/FR/CZ 22:00, JP 06:00 next day)

9. Adjournment

Adjourned by unanimous consent at 11:35 on 2017-11-16.