1. DR 11-0005 — WML: Dealing with section breaks

Status: Closed; in COR2

Subject: WML: Dealing with section breaks

Qualifier: Technical defect

Submitter: Chris Rae   **Organization:** Ecma

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Submitter's Defect Number: None

Supporting Document(s): None

Date Circulated by Secretariat: 2011-03-02

Deadline for Response from Editor: 2011-05-02

IS 29500 Reference(s): 29500:2011 Part 1, §17.18.77, "ST_SectionMark (Section Type)", pp. 1631–1632

Related DR(s): None

Nature of the Defect:

Although "balanced columns" is defined normatively, it's difficult for an implementer to figure out what this means. Some informative text should be added to aid implementers in working with this feature.

[This issue was discovered during implementation of an Open XML-reader application by Florian Reuter (florian.reuter@gmail.com) and is being submitted via Ecma on his behalf.]

Solution Proposed by the Submitter:

Part 1, §17.18.77, "ST_SectionMark (Section Type)", p. xx

…

[*Note*: The W3C XML Schema definition of this simple type's content model (ST_SectionMark) … *end note*]

[*Note*: Typically, a continuous section break will balance the content of the previous section unless the "noColumnBalance" compatibility option (Part 4, §9.7.3.27) is given. *end note*]

[*Example*:

Consider the following sample document:

Columm·balancing·sample .... Section Break (Continuous)	
Text·text·text·text·text·text·text·text·text·text· text·text·text·text·text·text·text·text·text·text·	text·text·text·text·text·text·text·text·text·text· text·text·text .... Section Break (Continuous) ....
Last·section.¶	

The second section ("Text text text …") has two columns and the third section ("Last section") has the type "continuous". As a result the content of the second section is balanced before the third section is laid out. *end example*]

The process of "balancing" is defined by starting the next section at the minimum section height such that all content constraints are met.

[*Example*:

Consider the following sample document:

Columm·balancing·sample .... Section Break (Continuous)	
A¶ B¶ C¶	D .... Section Break (Continuous) ....
Last·section.¶	

The above balancing is invalid, since the height of the second section can be reduced such that the following minimal balancing is achieved:

Columm·balancing·sample .... Section Break (Continuous)	
A¶ B¶	C¶ D .... Section Break (Continuous) ....
Last·section.¶	

end example]

[*Example*:

The document

Columm·balancing·sample .... Section Break (Continuous)	
A¶ B¶	C¶ D¶ E .... Section Break (Continuous) ....
Last·section.¶	

has an

invalid column balancing since the content is not laid out with respect to the implied constraints—although the section height is minimal. The correct minimal balancing look like this:

```
Columm·balancing·sample......................................................Section Break (Continuous)...........................................................................

A¶                                                          D¶
B¶                                                          E...........................Section Break (Continuous)...........................
C¶
Last·section.¶
```

end example]

[Example:

The following section balancing

```
Columm·balancing·sample......................................................Section Break (Continuous)...........................................................................

A·long·long·long·long·long·long·long·long·long·      on.....................................Section Break (Continuous)...........................
paragraph·with·Widow/Orphan·control·turned·
Last·section.¶
```
is invalid, since the "Widow/Orphan" constraints are not met. The correct balancing looks like this:

```
Columm·balancing·sample......................................................Section Break (Continuous)...........................................................................

A·long·long·long·long·long·long·long·long·long·
paragraph·with·Widow/Orphan·control·turned·
on.....................................Section Break (Continuous)...........................
Last·section.¶
```

end example]

Schema Change(s) Needed: No

Editor's Response:

2011-03-03 Teleconference:

Chris introduced the issue. It was generally agreed this was a worthwhile addition.

With respect to 'the "noColumnBalance" compatibility option', Rex thought that Part 1 should not contain a reference to Part 4.

2011-03-28/30 Prague Meeting:

Accepted the proposal with "invalid" being changed to "incorrect". Also, we'll move the forward-referencing note intended for Part 1, to Part 4 and rewrite accordingly.

Action: Rex to figure out the exact wording of the note

Moved to Last Call.

2011-05-16 Rex Jaeschke:

As some normative text is being added, I changed this DR from "editorial" to "technical".

Here are the final changes:

Part 1, §17.18.77, "ST_SectionMark (Section Type)", p. 1632

…

[*Note*: The W3C XML Schema definition of this simple type's content model (ST_SectionMark) … *end note*]

[*Note*: A continuous section break balances the content of the previous section. *end note*]

[*Example*:

Consider the following sample document:

Columm·balancing·sample	Section Break (Continuous)	
Text·text·text·text·text·text·text·text·text·text· text·text·text·text·text·text·text·text·text·text·		text·text·text·text·text·text·text·text·text·text· text·text·text Section Break (Continuous)
Last·section.¶		

The second section ("Text text text …") has two columns and the third section ("Last section") has the type "continuous". As a result, the content of the second section is balanced before the third section is laid out. *end example*]

The process of "balancing" is defined by starting the next section at the minimum section height such that all content constraints are met.

[*Example*:

Consider the following sample document:

Columm·balancing·sample	Section Break (Continuous)	
A¶ B¶ C¶		D Section Break (Continuous)
Last·section.¶		

The above balancing is incorrect, as the height of the second section can be reduced such that the following minimal balancing is achieved:

Columm·balancing·sample..Section Break (Continuous)..

A¶
B|¶   C¶
                                            D...Section Break (Continuous)..........................
Last·section.¶

end example]

[*Example*:

The document

Columm·balancing·sample..Section Break (Continuous)..

A¶
B¶   C¶
                                           D¶
                                           E.....................................Section Break (Continuous).....................
Last·section.|¶   has

incorrect column balancing, as the content is not laid out with respect to the implied constraints—although the section height is minimal. The correct minimal balancing looks like this:

Columm·balancing·sample..Section Break (Continuous)..

A¶
B¶   D¶
C¶   E.....................................Section Break (Continuous).....................
Last·section.|¶

end example]

[*Example*:

The following section balancing

Columm·balancing·sample..Section Break (Continuous)..

A·long·long·long·long·long·long·long·long·long·   on...Section Break (Continuous).........................
paragraph·with·Widow/Orphan·control·turned·
Last·section.|¶   is

incorrect, as the "Widow/Orphan" constraints are not met. The correct balancing looks like this:

Columm·balancing·sample...Section Break (Continuous).....................................

A·long·long·long·long·long·long·long·long·long·
paragraph·with·Widow/Orphan·control·turned·
on..Section Break (Continuous)..

Last·section.¶

end example]

Part 4, §14.7.3.27, "noColumnBalance (Do Not Balance Text Columns within a Section)", p. 118

[*Note*: Typically, a continuous section break (Part 1, §17.18.77) balances the content of the previous section, unless the "noColumnBalance" compatibility option is given. *end note*]

This element specifies whether the contents of sections with multiple columns defined using the cols element (Part 1, §17.6.4) should automatically be balanced. …

Changes to Part 1: Y **Part 2:** N **Part 3:** N **Part 4:** Y