

SOME COMMENTS ON TR 19758 DRAFT AMENDMENTS AND SUGGESTIONS

Country Report of Mongolia

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1. Some peculiarities of Mongolian script and document style

International Standard ISO/IEC 10179 – Document Style Semantics and Specification Language (DSSSL) was prepared in 1996, before Mongolian script became well-known all over the world². Therefore, some peculiarities of Mongolian script had not been taken into consideration in this standard and consequently, in ISO/IEC TR 19758 (DSSSL library for complex compositions). These omissions will cause some problems in specification and processing of mongolian documents.

We first consider these problems in this report.

1.1. Writing mode

In ISO/IEC 10179, it is said that writing-mode can be left-to-right, right-to-left, or top-to-bottom. Indeed, this is writing direction only.

For a multi-lingual document, writing direction (a horizontal or vertical direction) is not sufficient for full specification of a composition³. For example, a text in Mongolian script is written vertically downwards in columns as well as in Japanese, Chinese and Korean languages. But, the lines (columns) in a mongolian document proceed from left to right, meanwhile columns in the latter case proceed from right to left (see Figure 1). In the other word, writing begins at the left-top edge of an area in the first case, but in the second case it begins at the right-top edge.

The same difference exists in documents written in English and Arabic languages.

Therefore, a composition in a document has to have a property which can be called as the orientation of the composition. The orientation of the composition is in turn determined by its *starting point (or entry point)* and its *writing direction*.

The starting point defines the position at which writing within the composition begins, and is situated at the top left-hand corner of the composition for Latin and Mongolian script groups, and at the top right-hand corner for Arabic and CJK (Chinese, Japanese, and Korean) script groups.

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² Mongolian script was included in ISO/IEC 10646 and Unicode Standards in 1999

³ See, Myatav Erdenechimeg, Richard Moore and Yumbayar Namsrai, The Basic Model of Multi-lingual Documents, UNU/IIST, Report No. 105

Thus, the starting point has to be a simple parameter and is included in the simple parameter data list in 5.2 of the ISO/IEC TR 19758 as follows:

```
*starting-point*
  starting point (string: "left"/"right")(default "left")
```

There are four possible orientations for a composition. We call them the “HL”, “HR”, “VL” and “VR” orientations. For example, a character string in the HL composition fills an area horizontally from left to right with lines of text proceeding downwards (i.e. placement direction

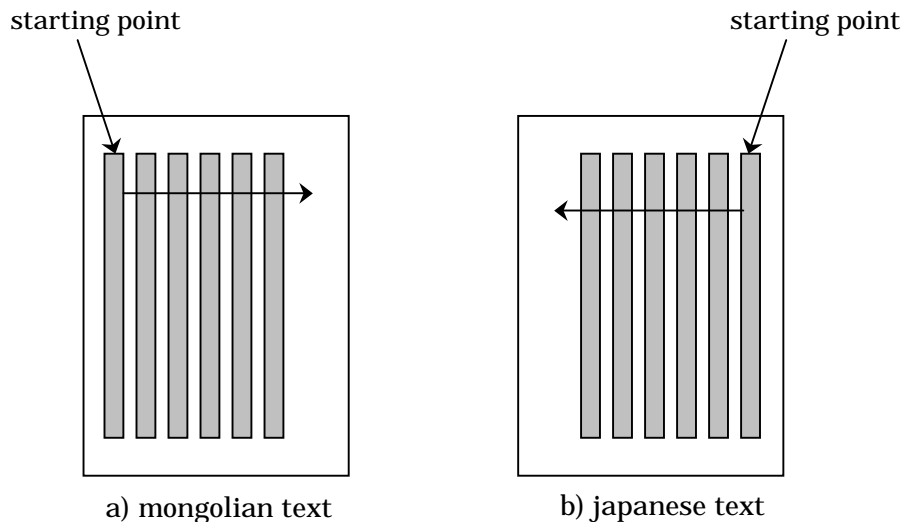


Figure 1 - Vertical compositions with the different starting point

is downwards). In the VL composition a character string fills an area vertically from top to bottom in lines, the lines proceeding from left to right (i.e. placement direction is left-to-right), and in the VR composition a character string fills an area vertically from top to bottom in lines, but the lines proceeding from right to left (i.e. placement direction is right-to-left). The relationship between the orientation of a composition and its writing direction and starting point is shown in Table 1.

Table 1 – Orientation of a composition

Orientation	Writing direction	Starting point
HL	horizontal	left
HR	horizontal	right
VL	vertical	left
VR	vertical	right

The orientation parameter can be defined as follows:

```
*orientation*
  orientation of composition (string: "HL" / "HR" / "VL" / "VR")(default "HL")
```

Then, the following parameter generator function can be defined:

```
;; the parameter is the name of a orientation.
(define (determine-orientation orn)
```

```

(cond ((string=? orn "HL") (cons ' "horizontal" ' "left"))
      ((string=? orn "HR") (cons ' "horizontal" ' "right"))
      ((string=? orn "VL") (cons ' "vertical" ' "left"))
      ((string=? orn "VR") (cons ' "vertical" ' "right")))

(define (get-direction- orn)
  (car (determine-orientation orn)))

(define (get-starting- orn)
  (car (determine-orientation orn)))

```

Suggestion 1: The problem of the orientation should be a subject of a consideration. (If it is acceptable, then we should revise the whole specification in the TR 19758 and expand it.)

1.2. Indentation of paragraphs

In our report, presented on the 1st Symposium of Asian Document Style Information Interchange (DocSII-1)⁴, we explained the traditional style of mongolian historical documents. One of the peculiarities of mongolian document style is the indentation style, which differs from the common style (see Figure 2, 3).

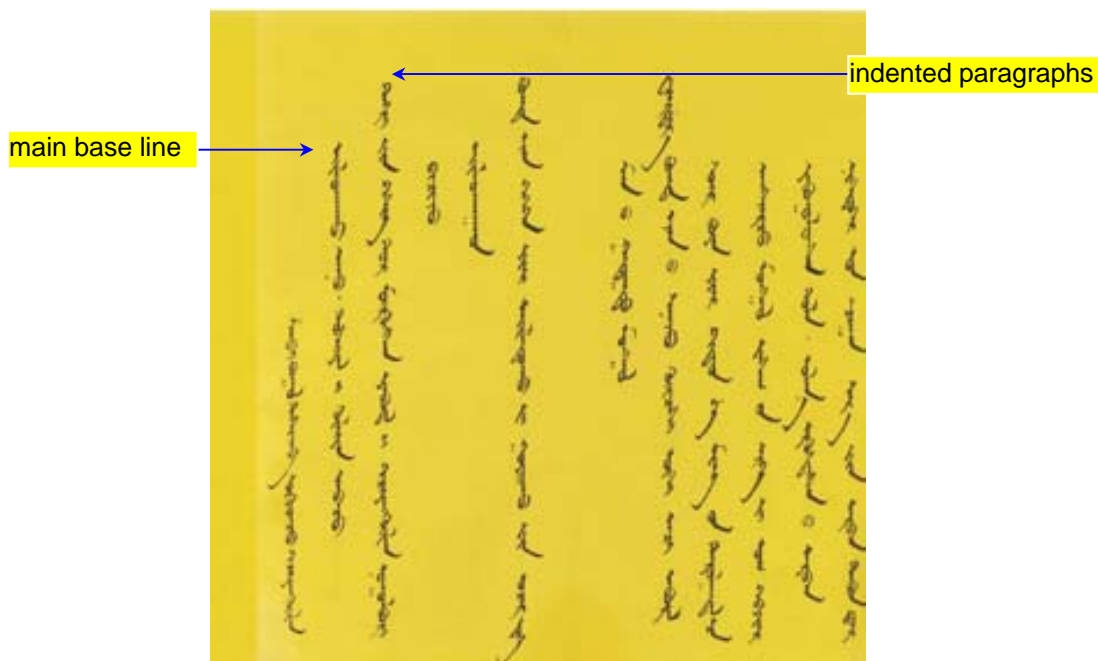


Figure 2 – Mongolian style of indentation

According to the ISO/IEC 10179 standard, indentation of a paragraph is specified by characteristics: start-indent and first-line-start-indent. The start-indent specifies the indent for the starting edge of the paragraph in the writing direction. The first-line-start-indent gives an indent to be added to the start-indent for the first line and its value may be negative.

Thus, in order to raise the first line of a paragraph within mongolian documents, we can use a

⁴ Sh. Choimaa, Yu Namsrai, The Traditional Style of Official Documents of Mongolia, <http://www.y-adagio/public/committees/docsii/>, Distributed documents #35

negative value for *first-line-start-indent*. In this case, the paragraph itself has to be indented by (abs *first-line-start-indent*) length at least. Therefore, the following definition should be written:

```
;; indentation parameters for a paragraph

(define indents
  (if (negative? *first-line-start-indent*)
      (make paragraph
        start-indent: (abs *first-line-start-indent*))
      ))
```

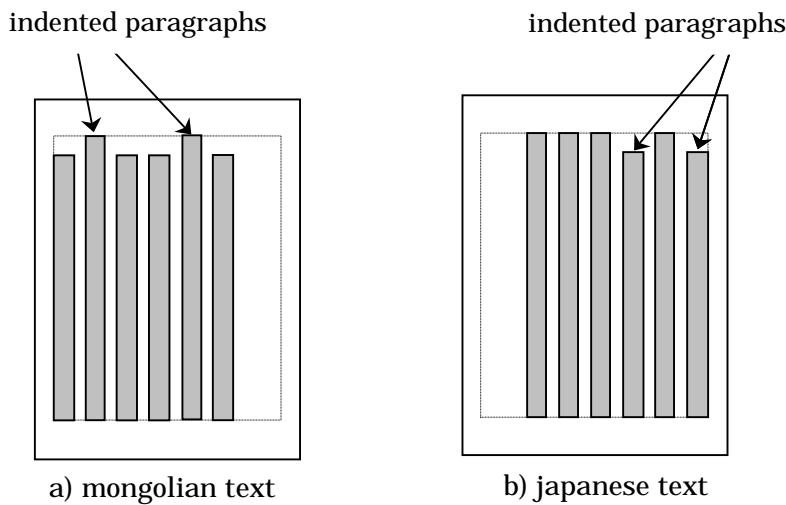


Figure 3 - Different styles of indentation

2. Some comments on DAM 1 and DAM 2

In clause 4.4.1 (Graphical method using the Unwin module concept) of DAM 1, the list of the procedures should be as follows:

- a) Draw the diagonal line from the top-right edge of the left page to the bottom-left edge.
- b) Specify S point on the diagonal drawn on procedure 1.
- c) ...

Because, if we first specify S point then it might not be on the diagonal.

In clause 4.18.4 (Table header column and row), add the following notes:

NOTE: A table may have only the header column or the header row.
 NOTE: The table header column and row may be defined to contain data of type different from regular table cells.

In clause 4.18.5.1 (Diagonal line through table), add the following note:

NOTE: Diagonal cells of a table, marked with the diagonal line, are initially filled with light-gray color as background.

The last phrase of *clause 4.18.6* (Word wrapping) can be replaced with “#f means linefeed characters must be inserted to wrap the string onto lines with a right for the cell size.

A more general note to *Clause 4.21* (instead of the note “The first paragraph in a clause may have non-indentation” in DAM 2) might be the following:

NOTE Paragraphs in a clause may have different indentations.

Page 23, Clause 4.21

Add the following list items:

- d) -1 em indentation
- e) -2 em indentation

In conclusion, we consider that all other extensions suggested in DAM 1 and 2 are important. Therefore, we support the authors and ask the responsible authorities to make the corresponding amendments in ISO/IEC TR 19758.