

# XSL-FO Reference Guide

incl. the Antenna House Extensions

With change markers to the former version!

Status: XSL-FO, Version 1.1  
AH XSL Formatter, V. 7.4



## List of Changes in AH XSL Formatter, V. 7.4

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Change-ID	Change mode	Page
ch-74-01	extended	25
ch-74-02	added	378
ch-74-03	added	470
ch-74-04	extended	14
ch-74-05	extended	17
ch-74-06	extended	21
ch-74-07	extended	34
ch-74-08	extended	36
ch-74-09	extended	41
ch-74-10	extended	43
ch-74-11	extended	68
ch-74-12	extended	292
ch-74-13	added	342
ch-74-14	added	384
ch-74-15	extended	381
ch-74-16	added	332
ch-74-17	extended	332
ch-74-18	added	436
ch-74-19	extended	435
ch-74-20	extended	66
ch-74-22	added	316
ch-74-23	added	317
ch-74-24	extended	214

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<b>Change-ID</b>	<b>Change mode</b>	<b>Page</b>
ch-74-25	added	220
ch-74-26	extended	273
ch-74-27	extended	264
ch-74-28	added	265
ch-74-29	added	266
ch-74-30	added	226

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Manfred Krüger

# XSL-FO Reference Guide

including the Antenna House Extensions  
Status: AH XSL Formatter V. 7.4



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# Preface

XML-structured documents can be automatically processed into sophisticated and feature-rich publications and documentation using XSL-FO technology. This has become much practiced in recent years with many different languages, font systems and design traditions.

The basis for this is the XSL concept of the W3C Consortium with the standards for the transformation of XML data [XSLT 2014] and for creative presentation [XSL-FO 2006]. However, this only describes the standardized basis on which formatting systems (typesetting systems) can be built. The processing and output of XML sources thus depends to a large extent on the quality of the formatting system.

The formatter of the Japanese manufacturer Antenna House, the AH XSL Formatter, offers a complete coverage of the standard constructs and, in addition, a wealth of extensions for all world languages, a wide range of Asian regional languages, technical, mathematical and other scientific notations. The AH XSL Formatter supports the multilingual requirements of sophisticated typography and font handling. A particular strength of the AH XSL Formatter is the wide range of different output formats for multimedia use.

To counter any false expectation: This reference guide is not a user manual for the AH XSL Formatter. It is not a substitute for an introduction to XSL-FO technology and the design of a stylesheet either.

A good knowledge base for developing XSL stylesheets is provided by my book “XSL-FO Understand and Use” (see [back cover](#)).



About the extent: the standard in version 1.1 includes 81 formatting objects, 252 properties and 19 functions. The system settings with their options and the extensions of Antenna House in software version 7.4 (as of January 2024) include another more than 500 constructs, so that more than 850 constructs are described in this reference. The MathML and system settings not described in detail here are not included in this count.

This reference is published exclusively in a free PDF e-book edition. Check periodically to see if an updated version is available for download.

Manfred Krüger  
Leimen, January 2024

# 1 Formatting Objects, Properties, and XSL Functions

## SHORT and TIGHT

The following reference contains all formatting objects, their properties and functions included in version 1.1 of the XSL Recommendation (XSL1.1). The only exceptions are the acoustic properties, which have no meaning for presentation media.

## 1.1 Formatting Objects

The XSL-FO objects – called “formatting objects” in the standard – are listed in alphabetical order. After a short description of the function the permitted attributes are enumerated, as well as the parent objects within which the given object may be used. And, if applicable, the child objects that the given object may contain.

Furthermore, all extension properties are listed which are included in version 7.2 of the Antenna House XSL Formatter. Single objects that are not or extendedly supported by Antenna House, are marked.

The referenced objects and properties are linked to their description.

`<fo:basic-link>`

The object creates a link within a document and/or between documents. With the AH XSL Formatter it is possible to set internal

and external PDF links with exact addressing. For details see the Online Manual on the extensions page under the title “Making Link” (file in the AH XSL Formatter installation directory: docs/ahf-ext.html#pdf-link).

**Properties:** alignment-adjust, alignment-baseline, background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, baseline-shift, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, destination-placement-offset, dominant-baseline, external-destination, id, indicate-destination, internal-destination, keep-together, keep-with-next, keep-with-previous, line-height, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, role, show-destination, source-document, space-end, space-start, target-processing-context, target-presentation-context, target-stylesheet

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** axf:action-type, axf:alttext, axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width,

axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style,  
axf:reverse-diagonal-border-width

**Parent Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>,  
<fo:folio-prefix>, <fo:folio-suffix>, <fo:inline>, <fo:leader>, <fo:marker>,  
<fo:multi-case>, <fo:multi-toggle>, <fo:title>, <fo:wrapper>

**Child Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>,  
<fo:block-container>, <fo:character>, <fo:external-graphic>,  
<fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>,  
<fo:leader>, <fo:list-block>, <fo:multi-toggle>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:scaling-value-citation>, <fo:table-and-caption>, <fo:table>

**AHF Child Objects:** <axf:ruby>

<fo:bidirectional-override>

This object can be used to force a writing direction different from the general writing direction for a string if the Unicode algorithm (based on specific Unicode characters) for bi-directionality cannot be applied.

**Properties:** color, direction, font-family, font-selection-strategy, font-size, font-stretch, font-size-adjust, font-style, font-variant, font-weight, id, letter-spacing, line-height, relative-position, score-spaces, unicode-bidi, word-spacing

**Shorthand Properties:** font

**AHF Properties:** axf:auto-letter-spacing, axf:letter-spacing-side

**Parent Objects:** <fo:basic-link>,  
<fo:bidirectional-override>, <fo:block>, <fo:folio-prefix>,  
<fo:folio-suffix>, <fo:index-page-citation-list-separator>,  
<fo:index-page-citation-range-separator>, <fo:index-page-number-prefix>,  
<fo:index-page-number-suffix>, <fo:inline>, <fo:leader>, <fo:marker>,  
<fo:multi-case>, <fo:multi-toggle>, <fo:title>, <fo:wrapper>

**Child Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:index-page-citation-list>, <fo:index-range-begin>, <fo:index-range-end>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>, <fo:list-block>, <fo:multi-toggle>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:scaling-value-citation>, <fo:table-and-caption>, <fo:table>

**AHF Child Objects:** <axf:ruby>

<fo:block>

The object creates regions for paragraphs, titles, headings, figures, table headings, etc. by using a block. It is the central block creating object. It can recursively be nested to any depth to provide spanning regions with specific properties by inheritance.

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, break-after, break-before, color, country, end-indent, font-family, font-selection-strategy, font-size, font-stretch, font-size-adjust, font-style, font-variant, font-weight, hyphenate, hyphenation-character, hyphenation-push-character-count, hyphenation-remain-character-count, hyphenation-keep, hyphenation-ladder-count, id, intrusion-displace, keep-together, keep-with-next, keep-with-previous, language,



afx:diagonal-border-width, [afx:double-hyphen-translineation](#),  
afx:flush-zone, afx:hanging-punctuation, afx:hyphenate-caps-word,  
afx:hyphenate-hyphenated-word, afx:hyphenation-minimum-character-count,  
afx:hyphenation-zone, afx:index-page-citation-range-f-suffix,  
afx:index-page-citation-range-ff-suffix, afx:initial-letters,  
afx:initial-letters-first-line-head-height,  
afx:initial-letters-end-indent, afx:initial-letters-leading-punctuation,  
afx:initial-letters-leading-punctuation-position,  
afx:initial-letters-leading-punctuation-shift, afx:initial-letters-width,  
afx:initial-letters-text-align, afx:initial-letters-color,  
[afx:initial-letters-start-intrusion](#), afx:justify-nbsp,  
afx:kansuji-grouping-letter, afx:kansuji-letter,  
afx:kansuji-style, afx:keep-together-within-dimension,  
afx:keep-together-within-inline-dimension, afx: Kerning-mode,  
afx:leader-expansion, afx:ligature-mode,  
afx:line-number-except-continued-line, afx:line-break,  
afx:line-continued-mark, afx:line-continued-mark-background-color,  
afx:line-continued-mark-color, afx:line-continued-mark-font-family,  
afx:line-continued-mark-font-size, afx:line-continued-mark-font-style,  
afx:line-continued-mark-font-weight, afx:line-continued-mark-offset,  
afx:line-number, afx:line-number-background-color, afx:line-number-color,  
afx:line-number-display-align, afx:line-number-font-family,  
afx:line-number-font-size, afx:line-number-font-style,  
afx:line-number-font-weight, afx:line-number-offset,  
afx:line-number-position, afx:line-number-text-align,  
afx:line-number-text-decoration, afx:line-number-width, afx:normalize,  
afx:normalize-exclude, afx:number-transform, afx:overflow-align,  
afx:outline-color, afx:outline-expand, afx:outline-external-destination,  
afx:outline-font-style, afx:outline-font-weight, afx:outline-group,  
afx:outline-internal-destination, afx:outline-level, afx:outline-title,

afx:pdftag, afx:punctuation-spacing, afx:punctuation-trim,  
afx:reverse-diagonal-border-color, afx:reverse-diagonal-border-style,  
afx:reverse-diagonal-border-width, afx:soft-hyphen-treatment,  
afx:suppress-duplicate-marker-contents, afx:suppress-if-first-on-page,  
afx:tab-stops, afx:tab-treatment, afx:tab-overlap-treatment,  
afx:text-align-first, afx:text-align-string, afx:text-autospace,  
afx:text-autospace-width, afx:text-combine-horizontal,  
afx:text-indent-if-first-on-page, afx:text-justify, afx:text-justify-trim,  
afx:text-kashida-space, afx:text-line-color, afx:text-line-style,  
afx:text-line-width, afx:text-orientation, afx:text-overflow,  
afx:text-stroke, afx:text-stroke-width, afx:text-stroke-color,  
afx:text-underline-position, afx:transform, afx:transform-origin,  
afx:vertical-underline-side, afx:text-replace, afx:url-break,  
afx:word-break, afx:word-wrap

**Parent Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>,  
<fo:block-container>, <fo:float>, <fo:flow>, <fo:footnote-body>, <fo:inline>,  
<fo:inline-container>, <fo:list-item-body>, <fo:list-item-label>,  
<fo:marker>, <fo:multi-case>, <fo:multi-toggle>, <fo:static-content>,  
<fo:table-caption>, <fo:table-cell>, <fo:wrapper>

**Child Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>,  
<fo:block-container>, <fo:change-bar-begin>, <fo:change-bar-end>,  
<fo:character>, <fo:external-graphic>, <fo:index-page-citation-list>,  
<fo:index-range-begin>, <fo:index-range-end>, <fo:instream-foreign-object>,  
<fo:inline>, <fo:inline-container>, <fo:leader>, <fo:list-block>,  
<fo:multi-toggle>, <fo:page-number>, <fo:page-number-citation>,  
<fo:page-number-citation-last>, <fo:scaling-value-citation>,  
<fo:table-and-caption>, <fo:table>, <fo:wrapper>

**AHF Child Objects:** <afx:form>, <afx:form-field>, <afx:ruby>, <afx:tab>



`<fo:block-container>` (AHF: extended supported)

The object creates a container for blocks and other, more complex block objects, which can be positioned and dimensioned freely in the page, if necessary, also outside the text flow.

**Properties:** `absolute-position`, `background-attachment`, `background-color`, `background-image`, `background-repeat`, `background-position-horizontal`, `background-position-vertical`, `block-progression-dimension`, `break-after`, `break-before`, `border-before-color`, `border-before-style`, `border-before-width`, `border-after-color`, `border-after-style`, `border-after-width`, `border-start-color`, `border-start-style`, `border-start-width`, `border-end-color`, `border-end-style`, `border-end-width`, `border-top-color`, `border-top-style`, `border-top-width`, `border-bottom-color`, `border-bottom-style`, `border-bottom-width`, `border-left-color`, `border-left-style`, `border-left-width`, `border-right-color`, `border-right-style`, `border-right-width`, `bottom`, `clip`, `display-align`, `end-indent`, `height`, `id`, `inline-progression-dimension`, `intrusion-displace`, `keep-together`, `keep-with-next`, `keep-with-previous`, `left`, `margin-top`, `margin-bottom`, `margin-left`, `margin-right`, `overflow`, `padding-before`, `padding-after`, `padding-start`, `padding-end`, `padding-top`, `padding-bottom`, `padding-left`, `padding-right`, `reference-orientation`, `right`, `space-before`, `space-after`, `span`, `start-indent`, `top`, `width`, `writing-mode`, `z-index`

**Shorthand Properties:** `background`, `background-position`, `border`, `border-bottom`, `border-color`, `border-left`, `border-right`, `border-style`, `border-top`, `border-width`, `margin`, `padding`

**AHF Properties:** `axf:annotation-author`,  
`axf:annotation-border-style`, `axf:annotation-border-width`,  
`axf:annotation-border-color`, `axf:annotation-color`, `axf:annotation-contents`,  
`axf:annotation-file-attachment`, `axf:annotation-flags`,  
`axf:annotation-font-family`, `axf:annotation-font-size`,  
`axf:annotation-font-style`, `axf:annotation-font-weight`,

axf:annotation-height, axf:annotation-icon-name, axf:annotation-open,  
axf:annotation-position-horizontal, axf:annotation-position-vertical,  
axf:annotation-text-align, axf:annotation-text-color, axf:annotation-title,  
axf:annotation-type, axf:annotation-width, axf:baseline-grid,  
axf:baseline-block-snap, axf:base-uri, axf:border-radius,  
axf:border-bottom-left-radius, axf:border-bottom-right-radius,  
axf:border-top-left-radius, axf:border-top-right-radius, axf:column-fill,  
axf:column-rule, axf:column-rule-align, axf:column-rule-color,  
axf:column-rule-display, axf:column-rule-length, axf:column-rule-style,  
axf:column-rule-width, axf:destination-type, axf:diagonal-border-color,  
axf:diagonal-border-style, axf:diagonal-border-width, , axf:justify-nbsp,  
axf:kansuji-grouping-letter, axf:kansuji-letter, axf:kansuji-style,  
axf:kerning-mode, axf:ligature-mode, axf:line-break,  
axf:normalize, axf:normalize-exclude, axf:number-transform,  
axf:overflow-condense, axf:overflow-condense-limit-font-size,  
axf:overflow-condense-limit-font-stretch,  
axf:overflow-condense-limit-line-height,  
axf:overflow-condense-limit-letter-spacing, axf:condensed-text-align-last,  
axf:overflow-limit, axf:overflow-limit-block, axf:overflow-limit-inline,  
axf:overflow-replace, axf:punctuation-spacing, axf:punctuation-trim,  
axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style,  
axf:reverse-diagonal-border-width, axf:soft-hyphen-treatment,  
axf:suppress-if-first-on-page, axf:text-autospace, axf:text-autospace-width,  
axf:text-combine-horizontal, axf:text-indent-if-first-on-page,  
axf:text-justify, axf:text-justify-trim, axf:text-kashida-space,  
axf:text-orientation, axf:text-replace, axf:transform, axf:transform-origin,  
[axf:url-break](#), axf:word-break, axf:word-wrap

**Parent Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>,  
<fo:block-container>, <fo:float>, <fo:flow>, <fo:footnote-body>, <fo:inline>,  
<fo:inline-container>, <fo:list-item-body>, <fo:list-item-label>,

`<fo:marker>`, `<fo:multi-case>`, `<fo:multi-toggle>`, `<fo:static-content>`,  
`<fo:table-caption>`, `<fo:table-cell>`, `<fo:wrapper>`

**Child Objects:** `<fo:block>`, `<fo:block-container>`, `<fo:change-bar-begin>`,  
`<fo:change-bar-end>`, `<fo:index-range-begin>`, `<fo:index-range-end>`,  
`<fo:list-block>`, `<fo:table-and-caption>`, `<fo:table>`

`<fo:bookmark>`

This object can be used to address an internal or external point, e.g. a chapter or a section, for generating a PDF bookmark. A given bookmark includes the bookmark title specification and, if necessary, child bookmarks in arbitrarily deep nesting.

**Properties:** `external-destination`, `internal-destination`, `role`,  
`source-document`, `starting-state`

**Parent Objects:** `<fo:bookmark-tree>`

**Child Objects:** `<fo:bookmark>`, `<fo:bookmark-title>`

`<fo:bookmark-title>`

Titling a PDF bookmark. This object must contain character data only.

**Properties:** `color`, `font-style` (normal or italic), `font-weight` (normal or bold), `role`, `source-document`

**Parent Objects:** `<fo:bookmark>`

**Child Objects:** –

`<fo:bookmark-tree>`

The object includes PDF bookmarks as a container object. As an alternative for this standard concept the extension concept of the AH XSL Formatter can be used which forms the PDF bookmark hierarchy with the `axf:outline-level` extension property. PDF output in multiple files with the Antenna House `<axf:output-volume-info>` extension is only possible with the Antenna House extension concept!

**Properties:** –

**Parent Objects:** <fo:root>

**Child Objects:** <fo:bookmark>

<fo:change-bar-begin> (AHF: extended supported)

The normally empty object denotes the beginning of a changed passage in the document. The end of the changed passage is marked with an <fo:change-bar-end> object that has the same value for the change-bar-class property and is in the same nesting level. The passage marked as changed is highlighted on the left or right by a change bar. For the positioning and design of the change bar there are the corresponding change-bar- properties.

**Properties:** change-bar-class, change-bar-color, change-bar-offset, change-bar-placement, change-bar-style, change-bar-width, role, source-document, z-index

**Parent Objects:** <fo:block>, <fo:block-container>, <fo:table-and-caption>, <fo:table>, <fo:list-block>

**Child Objects:** <fo:float>

<fo:change-bar-end>

The object denotes the end of a changed passage in the document for which the fo:change-bar-begin has the same value in the change-bar-class property. For design details see <fo:change-bar-begin>.

**Properties:** change-bar-class, role, source-document

**Parent Objects:** <fo:block>, <fo:block-container>, <fo:table-and-caption>, <fo:table>, <fo:list-block>

**Child Objects:** –

## <fo:character>

The object is used for special typographical treatment of individual characters or character strings.

**Properties:** alignment-adjust, alignment-baseline, background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, baseline-shift, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, country, character, color, font-family, font-selection-strategy, font-size, font-stretch, font-size-adjust, font-style, font-variant, font-weight, glyph-orientation-horizontal, glyph-orientation-vertical, hyphenate, hyphenation-character, hyphenation-push-character-count, hyphenation-remain-character-count, id, keep-with-next, keep-with-previous, language, letter-spacing, line-height, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, script, score-spaces, space-end, space-start, suppress-at-line-break, text-altitude, text-decoration, text-depth, text-shadow, text-transform, treat-as-word-space, visibility, word-spacing

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, font, padding

**AHF Properties:** axf:annotation-author, axf:annotation-border-style, axf:annotation-border-width,

afx:annotation-border-color, afx:annotation-color, afx:annotation-contents,  
afx:annotation-file-attachment, afx:annotation-flags,  
afx:annotation-font-family, afx:annotation-font-size,  
afx:annotation-font-style, afx:annotation-font-weight,  
afx:annotation-height, afx:annotation-icon-name, afx:annotation-open,  
afx:annotation-position-horizontal, afx:annotation-position-vertical,  
afx:annotation-text-align, afx:annotation-text-color, afx:annotation-title,  
afx:annotation-type, afx:annotation-width, afx:auto-letter-spacing,  
afx:letter-spacing-side, afx:base-uri, afx:border-radius,  
afx:border-bottom-left-radius, afx:border-bottom-right-radius,  
afx:border-top-left-radius, afx:border-top-right-radius,  
afx:border-double-thickness, afx:border-triple-thickness,  
afx:border-wave-form, afx:box-shadow, afx:diagonal-border-color,  
afx:diagonal-border-style, afx:diagonal-border-width,  
afx:hyphenate-hyphenated-word, afx:hyphenation-minimum-character-count, ,  
afx:justify-nbsp, afx:kansuji-grouping-letter, afx:kansuji-letter,  
afx:kansuji-style, afx:kerning-mode, afx:ligature-mode, afx:line-break,  
afx:normalize, afx:normalize-exclude, afx:number-transform,  
afx:pdftag, afx:punctuation-spacing, afx:punctuation-trim,  
afx:reverse-diagonal-border-color, afx:reverse-diagonal-border-style,  
afx:reverse-diagonal-border-width, afx:soft-hyphen-treatment,  
afx:tab-treatment, afx:tab-overlap-treatment, afx:text-autospace,  
afx:text-autospace-width, afx:text-combine-horizontal, afx:quotetype,  
afx:text-justify, afx:text-justify-trim, afx:text-kashida-space,  
afx:text-line-color, afx:text-line-style, afx:text-line-width,  
afx:text-stroke, afx:text-stroke-width, afx:text-stroke-color,  
afx:text-underline-position, afx:vertical-underline-side,  
afx:text-orientation, afx:text-replace, afx:url-break, afx:word-break,  
afx:word-wrap

**Parent Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:folio-prefix>, <fo:folio-suffix>, <fo:index-page-citation-list-separator>, <fo:index-page-citation-range-separator>, <fo:index-page-number-prefix>, <fo:index-page-number-suffix>, <fo:index-range-begin>, <fo:index-range-end>, <fo:inline>, <fo:leader>, <fo:marker>, <fo:multi-case>, <fo:multi-toggle>, <fo:title>, <fo:wrapper>

<fo:color-profile>

This object is used to specify a color profile.

**Properties:** color-profile-name, rendering-intent, src

**Parent Objects:** <fo:declarations>

**Child Objects:** –

<fo:conditional-page-master-reference>

This object is used to identify a page template that is applied if the according application conditions are given. This allows the application of different page templates within a page sequence template, e.g. for left and right pages, the first page in a page sequence, or for last blank pages. This application is typical for chapters of a book of which the first page should have a different layout than the other pages and where the header and footer areas on left and right pages should also have different contents and layouts.

**Properties:** blank-or-not-blank, master-reference, odd-or-even, page-position

**Parent Objects:** <fo:repeatable-page-master-alternatives>

**Child Objects:** –

<fo:declarations>

The object is used to group global declarations. fo:declarations is to be placed under (after) <fo:layout-master-set>.

**Properties:** –

**Parent Objects:** <fo:root>

**Child Objects:** <fo:color-profile>

**AHF Child Objects:** <axf:counter-style>,  
<axf:custom-property>, <axf:font-face>, <axf:formatter-config>,  
<axf:hyphenation-info>, <axf:space-after-punctuation>,  
<axf:space-before-punctuation>, <axf:space-between-digit-and-punctuation>,  
<axf:space-between-punctuation-and-digit>

<fo:external-graphic>

This object is used to embed and scale a referenced graphic or multimedia object (outside the XML or FO instance).

**Properties:** alignment-adjust, alignment-baseline, allowed-height-scale, allowed-width-scale, background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, baseline-shift, block-progression-dimension, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, clip, content-height, content-type, content-width, display-align, dominant-baseline, height, id, inline-progression-dimension, keep-with-next, keep-with-previous, line-height, overflow, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, role, scaling, scaling-method, source-document, space-end, space-start, src, text-align, width



**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** axf:alttext, axf:background-image-resolution, axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:display-alttext, axf:diagonal-border-width, axf:image-orientation, , axf:image-resolution, axf:media-activation, axf:media-duration, axf:media-extraction-policy, axf:media-flash-context-menu, axf:media-flash-vars, axf:media-play-mode, axf:media-skin-auto-hide, axf:media-skin-color, axf:media-skin-control, axf:media-transparent-background, axf:media-volume, axf:media-window-height, axf:media-window-width, axf:multimedia-treatment, axf:poster-content-type, axf:poster-image, axf:pdftag, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width, axf:show-controls

**Parent Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:folio-prefix>, <fo:folio-suffix>, <fo:index-page-citation-list-separator>, <fo:index-page-citation-range-separator>, <fo:index-page-number-prefix>, <fo:index-page-number-suffix>, <fo:inline>, <fo:leader>, <fo:marker>, <fo:multi-case>, <fo:multi-toggle>, <fo:title>, <fo:wrapper>

**Child Objects:** <fo:index-range-begin>, <fo:index-range-end>

**AHF Child Objects:** <axf:form>

<fo:float> (AHF: extended supported)

This object can be used to place content relative to the display blocks.

Typically, these are images that are surrounded by the text of the given

display block, or texts that are to be placed sideways as marginalia of the given display block.

The AHF extensions: The `axf:float-*` extension properties provide the ability to freely position floating objects in the page. For spanning a flow object in a multi-column layout, there also is a specific unit of measurement `gr` (see ).

**Properties:** `clear`, `float`

**AHF Properties:** `axf:float`, `axf:float-x`, `axf:float-y`, `axf:float-reference`, `axf:float-move`, `axf:float-wrap`, `axf:float-min-wrap-x`, `axf:float-min-wrap-y`, `axf:float-centering-x`, `axf:float-centering-y`, `axf:float-margin-x`, `axf:float-margin-y`, `axf:float-float-margin-x`, `axf:float-float-margin-y`, `axf:float-offset-x`, `axf:float-offset-y`

**Parent Objects:** `<fo:change-bar-begin>`, `<fo:block>` (nicht in `<fo:table-cell>` or `<fo:block-container>`)

**Child Objects:** `<fo:block>`, `<fo:block-container>`, `<fo:list-block>`, `<fo:table-and-caption>`, `<fo:table>`

`<fo:flow>`

This object forms the area where the block objects flow into the pages according to their order in the source data.

**Properties:** `flow-name`

**AHF Properties:** `axf:baseline-grid`, `axf:baseline-block-snap`

**Parent Objects:** `<fo:page-sequence>`

**Child Objects:** `<fo:block>`, `<fo:block-container>`, `<fo:list-block>`, `<fo:table-and-caption>`, `<fo:table>`, `<fo:page-sequence>` (see the AHF extension there).

### <fo:flow-assignment>

This object is used to associate a sequence of text flows with a sequence of areas defined as flow areas (<fo:flow>) in page templates (<fo:simple-page-master>).

**Properties:** [flow-map-name](#)

**Parent Objects:** <fo:flow-map>

**Child Objects:** <fo:flow-source-list>, gefolgt von <fo:flow-target-list>

### <fo:flow-map>

This object is used to assign text flows to areas defined as flow areas in page templates.

**Properties:** [flow-map-name](#)

**Parent Objects:** <fo:layout-master-set>

**Child Objects:** <fo:flow-assignment>

### <fo:flow-name-specifier>

This object is used to name a flow in a <fo:flow-source-list>.

**Properties:** [flow-name-reference](#)

**Parent Objects:** <fo:flow-source-list>

**Child Objects:** –

### <fo:flow-source-list>

This object is used to assign flows to a <fo:flow-assignment>.

**Properties:** –

**Parent Objects:** <fo:flow-assignment>

**Child Objects:** <fo:flow-name-specifier>

### <fo:flow-target-list>

This object is used to specify areas to which flows are assigned within a given <fo:flow-assignment>.

**Properties:** –

**Parent Objects:** <fo:flow-assignment>

**Child Objects:** <fo:region-name-specifier>

<fo:folio-prefix>

This object can be used to prefix static strings, e.g. “page”, to page numbers.

**Properties:** –

**Parent Objects:** <fo:page-sequence>

**Child Objects:** <fo:bidirectional-override>, <fo:character>, <fo:external-graphic>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>, <fo:scaling-value-citation>, <fo:basic-link>, <fo:multi-toggle>, <fo:index-page-citation-list>

<fo:folio-suffix>

This object can be used to suffix static strings to page numbers.

**Properties:** –

**Parent Objects:** <fo:page-sequence>

**Child Objects:** <fo:bidirectional-override>, <fo:character>, <fo:external-graphic>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>, <fo:scaling-value-citation>, <fo:basic-link>, <fo:multi-toggle>, <fo:index-page-citation-list>

<fo:footnote>

This object is used to insert a footnote in the text flow, which is placed in the footnote area of the same page. For the specification of the footnote area see <fo:static-content>.

**Properties:** role, source-document

**AHF Properties:** [axf:footnote-align](#),  
[axf:footnote-keep](#), [axf:footnote-position](#), [axf:footnote-stacking](#),  
[axf:suppress-duplicate-footnote](#)

**Parent Objects:** not exactly specified in the standard, practically always where [<fo:inline>](#) is also allowed.

**Child Objects:** [<fo:footnote-body>](#), [<fo:inline>](#)

[<fo:footnote-body>](#) (AHF: extended supported)

This object causes the content of a footnote to be displayed in the footnote area. The footnote content must be embedded in a block object.

**Properties:** [role](#), [source-document](#)

**Parent Objects:** [<fo:footnote>](#)

**Child Objects:** [<fo:block>](#), [<fo:block-container>](#), [<fo:list-block>](#),  
[<fo:table-and-caption>](#), [<fo:table>](#)

**AHF Child Objects:** [<axf:footnote-number-citation>](#)

[<fo:index-key-reference>](#)

This object is used to generate page references to all occurrences of the value specified in [ref-index-key](#) with the same value in [index-key](#).

**Properties:** [page-number-treatment](#), [ref-index-key](#)

**Parent Objects:** [<fo:index-page-citation-list>](#)

**Child Objects:** [<fo:index-page-number-prefix>](#),  
[<fo:index-page-number-suffix>](#)

[<fo:index-page-citation-list>](#)

This object is used to group the page references generated by [<fo:index-key-reference>](#) and to merge them, if necessary.

**Properties:** [merge-ranges-across-index-key-references](#),  
[merge-sequential-page-numbers](#), [merge-pages-across-index-key-references](#)

**Parent Objects:** <fo:title>, <fo:block>, <fo:bidirectional-override>, <fo:folio-prefix>, <fo:folio-suffix>, <fo:inline>, <fo:leader>

**Child Objects:** <fo:index-page-citation-list-separator>, <fo:index-page-citation-range-separator>, <fo:index-key-reference>

<fo:index-page-citation-list-separator>

This object specifies characters, typically commas and spaces, that separate individual page numbers or page number ranges in a generated list of page numbers.

**Properties:** –

**Parent Objects:** <fo:index-page-citation-list>

**Child Objects:** <fo:bidirectional-override>, <fo:character>, <fo:external-graphic>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>

<fo:index-page-citation-range-separator>

This object specifies characters that allow two page number ranges to be distinguished in the index. This can be used to prefix the page numbers of a page sequence with a classifying text, such as “Appendix”, if this forms its own page sequence.

**Properties:** –

**Parent Objects:** <fo:index-page-citation-list>

**Child Objects:** <fo:bidirectional-override>, <fo:character>, <fo:external-graphic>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>

<fo:index-page-number-prefix>

This object is used to prefix a static character or string to page references generated by <fo:index-key-reference>.

**Properties:** –

**Parent Objects:** <fo:index-key-reference>

**Child Objects:** <fo:bidirectional-override>, <fo:character>, <fo:external-graphic>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>

<fo:index-page-number-suffix>

This object is used to suffix a static character or string to page references generated by <fo:index-key-reference>.

**Properties:** –

**Parent Objects:** <fo:index-key-reference>

**Child Objects:** <fo:bidirectional-override>, <fo:character>, <fo:external-graphic>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>

<fo:index-range-begin>

This object denotes the beginning of an index range marked by an index-key. The index range ends with a corresponding <fo:index-range-end>.

**Properties:** id, index-key, index-class

**Parent Objects:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:table-and-caption>, <fo:table>, <fo:bidirectional-override>, <fo:character>, <fo:external-graphic>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>

**Child Objects:** –

<fo:index-range-end>

This object denotes the end of an index range marked with an index-key. The index range starts with a corresponding <fo:index-range-begin>.

**Properties:** ref-id

**Parent Objects:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:table-and-caption>, <fo:table>, <fo: bidi-override>, <fo:character>, <fo:external-graphic>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>

**Child Objects:** –

<fo:initial-property-set>

This object is used to define the specific typography features of the first line of a block.

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, color, font-family, font-selection-strategy, font-size, font-stretch, font-size-adjust, font-style, font-variant, font-weight, id, letter-spacing, line-height, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, role, score-spaces, source-document, text-decoration, text-shadow, text-transform, word-spacing

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, font, padding

**AHF Properties:** axf:auto-letter-spacing, axf:letter-spacing-side, axf:border-radius, axf:border-bottom-left-radius,



axf:border-bottom-right-radius, axf:border-top-left-radius,  
axf:border-top-right-radius, axf:border-double-thickness,  
axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow,  
axf:diagonal-border-color, axf:diagonal-border-style,  
axf:diagonal-border-width, axf:reverse-diagonal-border-color,  
axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width,  
axf:text-line-color, axf:text-line-style, axf:text-line-width,  
axf:text-underline-position, axf:vertical-underline-side

**Parent Objects:** <fo:block>

**Child Objects:** –

<fo:inline>

This object can be used to design inline areas specifically and differently from the surrounding area, e.g. bold or italic.

**Properties:** alignment-adjust, alignment-baseline, background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, baseline-shift, block-progression-dimension, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, color, dominant-baseline, font-family, font-selection-strategy, font-size, font-stretch, font-size-adjust, font-style, font-variant, font-weight, height, hyphenate, id, inline-progression-dimension, keep-together, keep-with-next, keep-with-previous, letter-spacing, line-height, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom,

padding-left, padding-right, relative-position, role, source-document, space-end, space-start, text-decoration, visibility, width, wrap-option

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, font, padding

**AHF Properties:** axf:annotation-author, axf:annotation-border-style, axf:annotation-border-width, axf:annotation-border-color, axf:annotation-color, axf:annotation-contents, axf:annotation-file-attachment, axf:annotation-flags, axf:annotation-font-family, axf:annotation-font-size, axf:annotation-font-style, axf:annotation-font-weight, axf:annotation-height, axf:annotation-icon-name, axf:annotation-open, axf:annotation-position-horizontal, axf:annotation-position-vertical, axf:annotation-text-align, axf:annotation-text-color, axf:annotation-title, axf:annotation-type, axf:annotation-width, axf:auto-letter-spacing, axf:letter-spacing-side, axf:base-uri, axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:indent-here, axf:intrude-into-punctuation, , axf:justify-nbsp, axf:kansuji-grouping-letter, axf:kansuji-letter, axf:kansuji-style, axf:kerning-mode, axf:ligature-mode, axf:line-break, axf:normalize, axf:normalize-exclude, axf:number-transform, axf:pdftag, axf:punctuation-spacing, axf:punctuation-trim, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width, axf:soft-hyphen-treatment, axf:text-autospace, axf:text-autospace-width, axf:text-combine-horizontal, axf:text-justify, axf:text-justify-trim, axf:text-kashida-space,

afx:text-line-color, afx:text-line-style, afx:text-line-width,  
afx:text-stroke, afx:text-stroke-width, afx:text-stroke-color,  
afx:text-underline-position, [afx:url-break](#), afx:vertical-underline-side,  
afx:text-orientation, afx:text-replace, afx:word-break, afx:word-wrap

**Parent Objects:** <fo:basic-link>, <fo:bidirectional-override>,  
<fo:block>, <fo:folio-prefix>, <fo:folio-suffix>,  
<fo:footnote>, <fo:index-page-citation-list-separator>,  
<fo:index-page-citation-range-separator>, <fo:index-page-number-prefix>,  
<fo:index-page-number-suffix>, <fo:inline>, <fo:leader>, <fo:marker>,  
<fo:multi-case>, <fo:multi-toggle>, <fo:title>, <fo:wrapper>

**Child Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>,  
<fo:block-container>, <fo:character>, <fo:external-graphic>,  
<fo:index-page-citation-list>, <fo:index-range-begin>, <fo:index-range-end>,  
<fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>,  
<fo:leader>, <fo:list-block>, <fo:multi-toggle>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:scaling-value-citation>, <fo:table-and-caption>, <fo:table>

**AHF Child Objects:** <afx:footnote-number> (only if within <fo:footnote>),  
<afx:ruby>

<fo:inline-container>

This object is used to create a container within a line for processing subordinate block objects together. With inline-progression-dimension the width of an inline container can be specified and with block-progression-dimension the vertical extension.

**Properties:** alignment-adjust, alignment-baseline, background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, baseline-shift, block-progression-dimension, border-before-color, border-before-style, border-before-width, border-after-color,

border-after-style, border-after-width, border-start-color,  
border-start-style, border-start-width, border-end-color, border-end-style,  
border-end-width, border-top-color, border-top-style, border-top-width,  
border-bottom-color, border-bottom-style, border-bottom-width,  
border-left-color, border-left-style, border-left-width, border-right-color,  
border-right-style, border-right-width, clip, display-align,  
dominant-baseline, height, id, inline-progression-dimension, keep-together,  
keep-with-next, keep-with-previous, line-height, overflow, padding-before,  
padding-after, padding-start, padding-end, padding-top, padding-bottom,  
padding-left, padding-right, reference-orientation, relative-position,  
space-end, space-start, width, writing-mode

**Shorthand Properties:** background, background-position, border,  
border-bottom, border-color, border-left, border-right, border-style,  
border-top, border-width, padding

**AHF Properties:** axf:annotation-author,  
axf:annotation-border-style, axf:annotation-border-width,  
axf:annotation-border-color, axf:annotation-color, axf:annotation-contents,  
axf:annotation-file-attachment, axf:annotation-flags,  
axf:annotation-font-family, axf:annotation-font-size,  
axf:annotation-font-style, axf:annotation-font-weight,  
axf:annotation-height, axf:annotation-icon-name, axf:annotation-open,  
axf:annotation-position-horizontal, axf:annotation-position-vertical,  
axf:annotation-text-align, axf:annotation-text-color, axf:annotation-title,  
axf:annotation-type, axf:annotation-width, axf:base-uri, axf:border-radius,  
axf:border-bottom-left-radius, axf:border-bottom-right-radius,  
axf:border-top-left-radius, axf:border-top-right-radius,  
axf:border-double-thickness, axf:border-triple-thickness,  
axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color,  
axf:diagonal-border-style, axf:diagonal-border-width,  
axf:inline-overflow-align, , axf:justify-nbsp, axf:kansuji-grouping-letter,

axf:kansuji-letter, axf:kansuji-style, axf:kerning-mode, axf:ligature-mode, axf:line-break, axf:number-transform, axf:punctuation-spacing, axf:punctuation-trim, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width, axf:soft-hyphen-treatment, axf:text-autospace, axf:text-autospace-width, axf:text-justify, axf:text-justify-trim, axf:text-kashida-space, axf:text-replace, [axf:url-break](#), axf:word-break, axf:word-wrap

**Parent Objects:** <fo:basic-link>

<fo:bidirectional-override>, <fo:block>, <fo:folio-prefix>, <fo:folio-suffix>, <fo:index-page-citation-list-separator>, <fo:index-page-citation-range-separator>, <fo:index-page-number-prefix>, <fo:index-page-number-suffix>, <fo:inline>, <fo:leader>, <fo:marker>, <fo:multi-case>, <fo:multi-toggle>, <fo:title>, <fo:wrapper>

**Child Objects:** <fo:block>, <fo:block-container>, <fo:index-range-begin>, <fo:index-range-end>, <fo:list-block>, <fo:table-and-caption>, <fo:table>

<fo:instream-foreign-object>

This object can be used to format graphics or other objects (e.g. math) embedded directly in the XML data. The object data are substructures of the fo:instream-foreign-object, typically again XML data (e.g. SVG or MathML), but also non-XML data (e.g. Encapsulated Postscript, EPS). The format-specific processing of this data depends on the formatter used!

**Properties:** alignment-adjust, alignment-baseline, allowed-height-scale, allowed-width-scale, background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, baseline-shift, block-progression-dimension, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width,

border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, clip, content-height, content-type, content-width, display-align, dominant-baseline, height, id, inline-progression-dimension, keep-with-next, keep-with-previous, line-height, overflow, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, role, scaling, scaling-method, source-document, space-end, space-start, text-align, width

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** axf:alttext, axf:background-image-resolution, axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:image-orientation, axf:image-resolution, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width

**Parent Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:folio-prefix>, <fo:folio-suffix>, <fo:index-page-citation-list-separator>, <fo:index-page-citation-range-separator>, <fo:index-page-number-prefix>, <fo:index-page-number-suffix>, <fo:inline>, <fo:leader>, <fo:marker>, <fo:multi-case>, <fo:multi-toggle>, <fo:title>, <fo:wrapper>

**Child Objects:** <fo:index-range-begin>, <fo:index-range-end>

## <fo:layout-master-set>

This object forms the container for all page and page sequence templates used in the stylesheet.

**Properties:** –

**Parent Objects:** <fo:root>

**Child Objects:** <fo:flow-map>, <fo:page-sequence-master>, <fo:simple-page-master>

**AHF Child Objects:** <axf:spread-page-master>

## <fo:leader>

This object can be used to create lines with repeating characters or character patterns. It is typically used for leading lines connecting two in-line formatting objects (e.g. punctuation between heading and page number in tables of contents).

**Properties:** alignment-adjust, alignment-baseline, background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, baseline-shift, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, color, dominant-baseline, font-family, font-selection-strategy, font-size, font-stretch, font-size-adjust, font-style, font-variant, font-weight, id, keep-with-next, keep-with-previous, leader-alignment, leader-length, leader-pattern, letter-spacing, leader-pattern-width, line-height, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom,

padding-left, padding-right, relative-position, role, rule-style, rule-thickness, source-document, space-end, space-start, text-depth, text-altitude, text-shadow, visibility, word-spacing

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, font, padding

**AHF Properties:** axf:auto-letter-spacing, axf:letter-spacing-side, axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width

**Parent Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:folio-prefix>, <fo:folio-suffix>, <fo:index-page-citation-list-separator>, <fo:index-page-citation-range-separator>, <fo:index-page-number-prefix>, <fo:index-page-number-suffix>, <fo:inline>, <fo:leader>, <fo:marker>, <fo:multi-case>, <fo:multi-toggle>, <fo:title>, <fo:wrapper>

**Child Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:character>, <fo:external-graphic>, <fo:index-page-citation-list>, <fo:index-range-begin>, <fo:index-range-end>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>, <fo:multi-toggle>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:scaling-value-citation>

<fo:list-block>

This object is used to create lists or enumerations whose list objects each consist of a list label and thereafter a block arranged on the same



line. The list labels may consist of signs or icons repeated for each list object or sequential numbering or short texts.

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, break-after, break-before, end-indent, id, intrusion-displace, keep-together, keep-with-next, keep-with-previous, margin-top, margin-bottom, margin-left, margin-right, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, provisional-distance-between-starts, provisional-label-separation, relative-position, role, source-document, space-before, space-after, start-indent

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, margin, padding

**AHF Properties:** axf:annotation-author, axf:annotation-border-style, axf:annotation-border-width, axf:annotation-border-color, axf:annotation-color, axf:annotation-contents, axf:annotation-file-attachment, axf:annotation-flags, axf:annotation-font-family, axf:annotation-font-size, axf:annotation-font-style, axf:annotation-font-weight, axf:annotation-height, axf:annotation-icon-name, axf:annotation-open, axf:annotation-position-horizontal, axf:annotation-position-vertical,

afx:annotation-text-align, afx:annotation-text-color, afx:annotation-title, afx:annotation-type, afx:annotation-width, afx:baseline-grid, afx:baseline-block-snap, afx:base-uri, afx:border-radius, afx:border-bottom-left-radius, afx:border-bottom-right-radius, afx:border-top-left-radius, afx:border-top-right-radius, afx:border-double-thickness, afx:border-triple-thickness, afx:border-wave-form, afx:box-shadow, afx:destination-type, afx:diagonal-border-color, afx:diagonal-border-style, afx:diagonal-border-width, , afx:justify-nbsp, afx:kansuji-grouping-letter, afx:kansuji-letter, afx:kansuji-style, afx:keep-together-within-dimension, afx:kerning-mode, afx:ligature-mode, afx:line-break, afx:normalize, afx:normalize-exclude, afx:number-transform, afx:pdftag, afx:punctuation-spacing, afx:punctuation-trim, afx:reverse-diagonal-border-color, afx:reverse-diagonal-border-style, afx:reverse-diagonal-border-width, afx:soft-hyphen-treatment, afx:text-autospace, afx:text-autospace-width, afx:text-combine-horizontal, afx:text-justify, afx:text-justify-trim, afx:text-kashida-space, afx:text-orientation, afx:text-overflow, afx:text-replace, afx:url-break, afx:word-break, afx:word-wrap

**Parent Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:block-container>, <fo:float>, <fo:flow>, <fo:footnote-body>, <fo:inline>, <fo:inline-container>, <fo:list-item-body>, <fo:list-item-label>, <fo:marker>, <fo:multi-case>, <fo:multi-toggle>, <fo:static-content>, <fo:table-caption>, <fo:table-cell>, <fo:wrapper>

**Child Objects:** <fo:change-bar-begin>, <fo:change-bar-end>, <fo:index-range-begin>, <fo:index-range-end>, <fo:list-item>

<fo:list-item>

This object forms a list or enumeration object that contains the list label and the body.

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, break-after, break-before, end-indent, id, intrusion-displace, keep-together, keep-with-next, keep-with-previous, margin-top, margin-bottom, margin-left, margin-right, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, relative-align, role, source-document, space-before, space-after, start-indent

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, margin, padding

**AHF Properties:** axf:annotation-author, axf:annotation-border-style, axf:annotation-border-width, axf:annotation-border-color, axf:annotation-color, axf:annotation-contents, axf:annotation-file-attachment, axf:annotation-flags, axf:annotation-font-family, axf:annotation-font-size, axf:annotation-font-style, axf:annotation-font-weight, axf:annotation-height, axf:annotation-icon-name, axf:annotation-open, axf:annotation-position-horizontal, axf:annotation-position-vertical, axf:annotation-text-align, axf:annotation-text-color, axf:annotation-title, axf:annotation-type, axf:annotation-width, axf:base-uri, axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius,

afx:border-double-thickness, afx:border-triple-thickness,  
afx:border-wave-form, afx:box-shadow, afx:diagonal-border-color,  
afx:diagonal-border-style, afx:diagonal-border-width, , afx:justify-nbsp,  
afx:kansuji-grouping-letter, afx:kansuji-letter, afx:kansuji-style,  
afx:kerning-mode, afx:ligature-mode, afx:line-break,  
afx:normalize, afx:normalize-exclude, afx:number-transform,  
afx:pdftag, afx:punctuation-spacing, afx:punctuation-trim,  
afx:reverse-diagonal-border-color, afx:reverse-diagonal-border-style,  
afx:reverse-diagonal-border-width, afx:soft-hyphen-treatment,  
afx:text-autospace, afx:text-autospace-width, afx:text-combine-horizontal,  
afx:text-justify, afx:text-justify-trim, afx:text-kashida-space,  
afx:text-orientation, afx:text-replace, [afx:url-break](#), afx:word-break,  
afx:word-wrap

**Parent Objects:** <fo:list-block>

**Child Objects:** <fo:list-item-label>, <fo:list-item-body>

<fo:list-item-body>

This object encloses the body content of a list or enumeration object. The content must always be embedded in block-like subobjects. For the specification of the indent before the list body, the [start-indent](#) property is used with the [body-start\(\)](#) function as value.

**Properties:** [id](#), [keep-together](#), [role](#), [source-document](#),

**Parent Objects:** <fo:list-item>

**Child Objects:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:table-and-caption>, <fo:table>

<fo:list-item-label>

This object encloses the list item label of a list or enumeration element. The content must always be enclosed in block-like subobjects. For specifying the minimum whitespace between the label on the right

and the list body, property `end-indent` with function `label-end()` serves as value.

**Properties:** `end-indent`, `id`, `keep-together`, `role`, `source-document`

**Parent Objects:** `<fo:list-item>`

**Child Objects:** `<fo:block>`, `<fo:block-container>`, `<fo:list-block>`,  
`<fo:table-and-caption>`, `<fo:table>`

`<fo:marker>`

This object is used to mark the content enclosed in it (typically headings for chapters, sections, or even keywords in dictionaries) for further use. The `<fo:retrieve-marker>` object can then be used to render the marked content as a living page heading. The `<fo:retrieve-table-marker>` object can be used to reproduce the marked content as a continuation note in multi-page tables.

**Properties:** `marker-class-name`

**Parent Objects:** –

**Child Objects:** `<fo:basic-link>`, `<fo:bidi-override>`, `<fo:block>`,  
`<fo:block-container>`, `<fo:character>`, `<fo:external-graphic>`,  
`<fo:instream-foreign-object>`, `<fo:inline>`, `<fo:inline-container>`,  
`<fo:leader>`, `<fo:list-block>`, `<fo:multi-toggle>`, `<fo:page-number>`,  
`<fo:page-number-citation>`, `<fo:page-number-citation-last>`,  
`<fo:scaling-value-citation>`, `<fo:table-and-caption>`, `<fo:table>`

`<fo:multi-case>` (AHF: not supported)

The object contains all objects which can be displayed or hidden by the parent `<fo:multi-switch>` object. These are, for example, entries in the table of contents which can be expanded or collapsed by the parent object in an interactive, dynamic document usage (analogous to the handling of bookmarks in the PDF viewer).

**Properties:** `case-name`, `case-title`, `id`, `role`, `source-document`, `starting-state`

**Parent Objects:** <fo:multi-switch>

**Child Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>, <fo:list-block>, <fo:multi-toggle>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:scaling-value-citation>, <fo:table-and-caption>, <fo:table>

<fo:multi-properties> (AHF: not supported)

This object allows switching between two or more property sets (<fo:multi-property-set>s) in an interactive, dynamic document usage.

**Properties:** id, role, source-document

**Parent Objects:** all formatting objects

**Child Objects:** <fo:multi-property-set>, <fo:wrapper>

<fo:multi-property-set> (AHF: not supported)

This object includes an alternate set of presentation properties that can be used in an interactive, dynamic document usage. A number of these sets must be embedded in <fo:multi-properties>.

**Properties:** active-state, id, other properties not precisely specified in the standard

**Parent Objects:** <fo:multi-properties>

**Child Objects:** –

<fo:multi-switch> (AHF: not supported)

The object provides access to various subtrees of formatting objects contained in the <fo:multi-case> child objects. This can be used, for example, in the table of contents of an interactive, dynamic document application to expand and collapse the child entries (analogous to handling bookmarks in the PDF viewer).

**Properties:** [auto-restore](#), [id](#), [role](#), [source-document](#)

**Parent Objects:** all formatting objects

**Child Objects:** [<fo:multi-case>](#)

[<fo:multi-toggle>](#) (AHF: not supported)

With this object it is possible in an interactive dynamic document usage to change the state of the content of [<fo:multi-case>](#).

**Properties:** [id](#), [role](#), [source-document](#), [switch-to](#)

**Parent Objects:** [<fo:basic-link>](#), [<fo:bidirectional-override>](#), [<fo:block>](#), [<fo:inline>](#), [<fo:leader>](#), [<fo:marker>](#), [<fo:multi-case>](#), [<fo:multi-toggle>](#), [<fo:title>](#), [<fo:wrapper>](#)

**Child Objects:** [<fo:basic-link>](#), [<fo:bidirectional-override>](#), [<fo:block>](#), [<fo:block-container>](#), [<fo:character>](#), [<fo:external-graphic>](#), [<fo:folio-prefix>](#), [<fo:folio-suffix>](#), [<fo:instream-foreign-object>](#), [<fo:inline>](#), [<fo:inline-container>](#), [<fo:leader>](#), [<fo:list-block>](#), [<fo:multi-toggle>](#), [<fo:page-number>](#), [<fo:page-number-citation>](#), [<fo:page-number-citation-last>](#), [<fo:scaling-value-citation>](#), [<fo:table-and-caption>](#), [<fo:table>](#)

[<fo:page-number>](#)

This object is used to generate the current page number at the position where [fo:page-number](#) is placed inline. Typically, the object is inside a [<fo:static-content>](#) of a page as pagination.

**Properties:** [alignment-adjust](#), [alignment-baseline](#), [background-attachment](#), [background-color](#), [background-image](#), [background-repeat](#), [background-position-horizontal](#), [background-position-vertical](#), [baseline-shift](#), [border-before-color](#), [border-before-style](#), [border-before-width](#), [border-after-color](#), [border-after-style](#), [border-after-width](#), [border-start-color](#), [border-start-style](#), [border-start-width](#), [border-end-color](#), [border-end-style](#), [border-end-width](#),

border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, country, dominant-baseline, font-family, font-selection-strategy, font-size, font-stretch, font-size-adjust, font-style, font-variant, font-weight, format, grouping-separator, grouping-size, id, keep-with-next, keep-with-previous, language, letter-spacing, letter-value, line-height, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, role, score-spaces, source-document, space-end, space-start, text-orientation, text-decoration, text-depth, text-shadow, text-transform, visibility, word-spacing, wrap-option

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, font, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:number-type, axf:origin-id, axf:physical-page-number, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width, axf:reverse-page-number, axf:suppress-folio-prefix, axf:suppress-folio-suffix, axf:text-line-color, axf:text-line-style, axf:text-line-width, axf:text-underline-position, axf:vertical-underline-side

**Parent Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:inline>, <fo:leader>, <fo:marker>, <fo:multi-case>, <fo:multi-toggle>, <fo:title>, <fo:wrapper>



## Child Objects: –

<fo:page-number-citation>

This object references the page number of a formatting object. If the formatting object, such as a chapter, is a multi-page object, the starting page number is displayed. Typically, this is how page numbers are generated for chapters and sections in a table of contents.

**Properties:** alignment-adjust, alignment-baseline, background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, baseline-shift, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, country, dominant-baseline, font-family, font-selection-strategy, font-size, font-stretch, font-size-adjust, font-style, font-variant, font-weight, format, grouping-separator, grouping-size, id, keep-with-next, keep-with-previous, language, letter-spacing, letter-value, line-height, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, ref-id, relative-position, role, score-spaces, source-document, space-end, space-start, text-altitude, text-decoration, text-depth, text-shadow, text-transform, visibility, word-spacing, wrap-option

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, font, padding

**AHF Properties:** `axf:border-radius`,  
`axf:border-bottom-left-radius`, `axf:border-bottom-right-radius`,  
`axf:border-top-left-radius`, `axf:border-top-right-radius`,  
`axf:border-double-thickness`, `axf:border-triple-thickness`,  
`axf:border-wave-form`, `axf:box-shadow`, `axf:diagonal-border-color`,  
`axf:diagonal-border-style`, `axf:diagonal-border-width`,  
`axf:number-type`, `axf:origin-id`, `axf:physical-page-number`,  
`axf:reverse-diagonal-border-color`, `axf:reverse-diagonal-border-style`,  
`axf:reverse-diagonal-border-width`, `axf:reverse-page-number`,  
`axf:suppress-folio-prefix`, `axf:suppress-folio-suffix`, `axf:text-line-color`,  
`axf:text-line-style`, `axf:text-line-width`, `axf:text-underline-position`,  
`axf:vertical-underline-side`

**Parent Objects:** `<fo:basic-link>`, `<fo:bidirectional-override>`, `<fo:block>`,  
`<fo:inline>`, `<fo:leader>`, `<fo:marker>`, `<fo:multi-case>`, `<fo:multi-toggle>`,  
`<fo:title>`, `<fo:wrapper>`

**Child Objects:** –

`<fo:page-number-citation-last>`

This object references the page number of a formatting object. If the formatting object, such as a chapter, is a multi-page object, the ending page number is displayed. In conjunction with `<fo:page-number-citation>`, this allows the page numbers to be displayed from page x to page y.

**Properties:** `alignment-adjust`, `alignment-baseline`, `background-attachment`,  
`background-color`, `background-image`, `background-repeat`,  
`background-position-horizontal`, `background-position-vertical`,  
`baseline-shift`, `border-before-color`, `border-before-style`,  
`border-before-width`, `border-after-color`, `border-after-style`,  
`border-after-width`, `border-start-color`, `border-start-style`,  
`border-start-width`, `border-end-color`, `border-end-style`, `border-end-width`,  
`border-top-color`, `border-top-style`, `border-top-width`, `border-bottom-color`,

border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, country, dominant-baseline, font-family, font-selection-strategy, font-size, font-stretch, font-size-adjust, font-style, font-variant, font-weight, format, grouping-separator, grouping-size, id, keep-with-next, keep-with-previous, language, letter-spacing, letter-value, line-height, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, page-citation-strategy, ref-id, relative-position, role, score-spaces, source-document, space-end, space-start, text-altitude, text-decoration, text-depth, text-shadow, text-transform, visibility, word-spacing, wrap-option

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, font, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:number-type, axf:origin-id, axf:physical-page-number, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width, axf:reverse-page-number, axf:suppress-folio-prefix, axf:suppress-folio-suffix, axf:text-line-color, axf:text-line-style, axf:text-line-width, axf:text-underline-position, axf:vertical-underline-side

**Parent Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:inline>, <fo:leader>, <fo:marker>, <fo:multi-case>, <fo:multi-toggle>, <fo:title>, <fo:wrapper>

## Child Objects: –

`<fo:page-sequence>` (AHF: extended supported)

This object designates a page sequence, for example for a chapter that starts with a new page and ends with one, possibly short page. The `master-reference` property specifies which page templates (`<fo:simple-page-master>`) or page sequence templates (`<fo:page-sequence-master>`) are used within this page sequence. `fo:page-sequence` includes an optional title (`<fo:title>`), optional static contents (`<fo:static-content>`), and the `<fo:flow>` object into which the actual content flows.

The `from-page-master-region()` function allows to take the writing direction to be applied for the given page sequence from the specifications for `writing-mode` or `reference-orientation` in the `<fo:region-body>` main page area. The writing direction then applies equally to all page areas.

Using an AHF extension, `<fo:page-sequence>` can be nested directly under `<fo:flow>`. Example:

```
<fo:page-sequence A>
  <elements B>
  <fo:flow F>
  <elements C>
  <fo:page-sequence P>
  ...
</fo:page-sequence>
  <elements D>
</fo:flow>
</fo:page-sequence>
```

This structure is processed as follows:

```

<fo:page-sequence A>
  <elements B>
  <fo:flow F>
  <elements C>
</fo:flow>
</fo:page-sequence>
<fo:page-sequence P>
  ...
</fo:page-sequence>
  <fo:page-sequence A-cloned>
  <elements B-cloned>
  <fo:flow F-cloned>
  <elements D>
</fo:flow>
</fo:page-sequence>

```

If `<elements D>` does not exist, then `<fo:page-sequence A-cloned>` is not generated; however, `<fo:page-sequence A>` is generated even if `<elements C>` does not exist.

If an element with an attribute `id` is copied, this `id` is ignored.

This structure cannot be used if `<fo:page-sequence>` is inside [<fo:page-sequence-wrapper>](#).

To note: The child `<fo:page-sequence>` will try to read all FO-trees. This means that the memory requirements may reach their limits if a large `<fo:page-sequence>` is subordinated.

This AHF extension allows a `<fo:page-sequence>` to remain empty, i.e. without `<fo:flow>`:

```
(title?, folio-prefix?, folio-suffix?, static-content*, flow*)
```

If `force-page-count` in `<fo:page-sequence>` is not equal to the `no-force` value, `<fo:flow>` can be omitted. This allows to adjust the page number of a given page.

Example: If the last <fo:page-sequence> is not specified and the last page number should be an even one, a blank page with <fo:page-sequence> as the last page can be inserted as follows:

```
<fo:page-sequence master-reference="blank"
  force-page-count="document 2"/>
```

**Properties:** background, country, flow-map-reference, force-page-count, format, grouping-separator, grouping-size, id, index-class, index-key, initial-page-number, language, letter-value, master-reference, reference-orientation, writing-mode

**AHF Properties:** axf:append-non-end-of-line-characters, axf:append-non-starter-characters, axf:background-clip, axf:background-content-type, axf:background-image-resolution, axf:background-origin, axf:background-size, axf:column-number-format, axf:except-non-end-of-line-characters, axf:except-non-starter-characters, axf:footnote-number-format, axf:footnote-number-initial, axf:footnote-number-reset, axf:line-number-format, axf:line-number-initial, axf:line-number-interval, axf:line-number-orientation, axf:line-number-prefix, axf:line-number-reset, axf:line-number-start, axf:output-volume-break, axf:output-volume-filename, axf:page-number-prefix, axf:printer-bin-selection, axf:printer-duplex, axf:reverse-page

**Parent Objects:** <fo:root>, <fo:page-sequence-wrapper>

**Child Objects:** <fo:flow>, <fo:folio-prefix>, <fo:folio-suffix>, <fo:static-content>, <fo:title>

**AHF Child Objects:** <axf:document-info>

<fo:page-sequence-master>

This object defines a page sequence template, including its order and conditions of use (e.g. the first page of a chapter, left and right pages, last, possibly blank page). The page templates to be used in the page sequence template

([<fo:simple-page-master>](#)) can be specified within the child objects [<fo:single-page-master-reference>](#), [<fo:repeatable-page-master-reference>](#) or [<fo:repeatable-page-master-alternatives>](#).

**Properties:** [master-name](#)

**AHF Properties:** [axf:repeat-page-sequence-master](#)

**Parent Objects:** [<fo:layout-master-set>](#)

**Child Objects:** [<fo:repeatable-page-master-reference>](#),  
[<fo:repeatable-page-master-alternatives>](#),  
[<fo:single-page-master-reference>](#)

[<fo:page-sequence-wrapper>](#)

This object can be used to group page sequences ([<fo:page-sequence>](#)).

This grouping can be used to define a page sequence range beyond a single page sequence, which can be made visible in the display of page references in an index.

**Properties:** [id](#), [index-class](#), [index-key](#)

**Parent Objects:** [<fo:root>](#), [<fo:page-sequence-wrapper>](#)

**Child Objects:** [<fo:page-sequence>](#), [<fo:page-sequence-wrapper>](#)

[<fo:region-after>](#)

This object is used to specify the region after (under) the [<fo:region-body>](#) region within a page template ([<fo:simple-page-master>](#)). For the left-right writing mode, this is the footer region below the main area.

In the XSL specification, the order of the page regions is fixed: (region-body+, region-before?, region-after?, region-start?, region-end?)

The order of processing in the formatter is not defined. However, if parts of the regions overlap each other, it is important which region comes first. The AH XSL Formatter handles the processing of the regions in any order, but exactly in the given order. If the

`<fo:region-body>` is specified as the last region, then it will be above the other page regions.

**Properties:** `background-attachment`, `background-color`, `background-image`, `background-repeat`, `background-position-horizontal`, `background-position-vertical`, `border-before-color`, `border-before-style`, `border-before-width`, `border-after-color`, `border-after-style`, `border-after-width`, `border-start-color`, `border-start-style`, `border-start-width`, `border-end-color`, `border-end-style`, `border-end-width`, `border-top-color`, `border-top-style`, `border-top-width`, `border-bottom-color`, `border-bottom-style`, `border-bottom-width`, `border-left-color`, `border-left-style`, `border-left-width`, `border-right-color`, `border-right-style`, `border-right-width`, `clip`, `display-align`, `extent`, `overflow`, `padding-before`, `padding-after`, `padding-start`, `padding-end`, `padding-top`, `padding-bottom`, `padding-left`, `padding-right`, `precedence`, `region-name`  
For `reference-orientation` and `writing-mode` see the notes in the description of these properties!

**Shorthand Properties:** `background`, `background-position`, `border`, `border-bottom`, `border-color`, `border-left`, `border-right`, `border-style`, `border-top`, `border-width`, `padding`

**AHF Properties:** `axf:border-radius`, `axf:border-bottom-left-radius`, `axf:border-bottom-right-radius`, `axf:border-top-left-radius`, `axf:border-top-right-radius`, `axf:border-double-thickness`, `axf:border-triple-thickness`, `axf:border-wave-form`, `axf:box-shadow`, `axf:diagonal-border-color`, `axf:diagonal-border-style`, `axf:diagonal-border-width`, `axf:reverse-diagonal-border-color`, `axf:reverse-diagonal-border-style`, `axf:reverse-diagonal-border-width`

**Parent Objects:** `<fo:simple-page-master>`

**Child Objects:** –



## <fo:region-before>

This object is used to specify the region before the <fo:region-body> region within a page master (<fo:simple-page-master>). For the left-right writing mode, this is the header region above the main region.

In the XSL specification, the order of the page regions is fixed: (region-body+, region-before?, region-after?, region-start?, region-end?)

The order of processing in the formatter is not defined. But if parts of the regions overlap each other, it is important which region comes first. The AH XSL Formatter handles the processing of the regions in any order, but exactly in the given order. If the <fo:region-body> is specified as the last region, then it will be above the other page regions.

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, clip, display-align, extent, overflow, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, precedence, region-name

For reference-orientation and writing-mode see the notes in the description of these properties!

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius,

axf:border-top-right-radius, axf:border-double-thickness,  
axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow,  
axf:diagonal-border-color, axf:diagonal-border-style,  
axf:diagonal-border-width, axf:reverse-diagonal-border-color,  
axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width

**Parent Objects:** <fo:simple-page-master>

**Child Objects:** –

<fo:region-body>

This object defines the main region of a page template (<fo:simple-page-master>). The possibly specified page margins above <fo:region-before> and below <fo:region-after> delimit the main area from above and below, starting from the page height specified with the [page-height](#) property. The height of the main area is obtained by subtracting the top ([margin-top](#)) and bottom ([margin-bottom](#)) margins, if any, and the heights ([extent](#)) of the regions above and below, if any, from the specified page height ([page-height](#)). Analogously, this applies to the width of the main region starting from the page width ([page-width](#)) if left ([margin-left](#)) and right ([margin-right](#)) margins and left ([margin-start](#)) and right ([margin-end](#)) page outer regions are defined.

In the XSL specification, the order of the page regions is fixed: (region-body+, region-before?, region-after?, region-start?, region-end?)

The order of processing in the formatter is not defined. But if parts of the regions overlap each other, it is important which region comes first. The AH XSL Formatter handles the processing of the regions in any order, but exactly in the given order. If the <fo:region-body> is specified as the last region, then it will be above the other page regions.

**Properties:** [background-attachment](#), [background-color](#),  
[background-image](#), [background-repeat](#), [background-position-horizontal](#),  
[background-position-vertical](#), [border-before-color](#), [border-before-style](#),

border-before-width, border-after-color, border-after-style,  
border-after-width, border-start-color, border-start-style,  
border-start-width, border-end-color, border-end-style, border-end-width,  
border-top-color, border-top-style, border-top-width, border-bottom-color,  
border-bottom-style, border-bottom-width, border-left-color,  
border-left-style, border-left-width, border-right-color,  
border-right-style, border-right-width, clip, column-count, column-gap,  
display-align, end-indent, margin-top, margin-bottom, margin-left,  
margin-right, overflow, padding-before, padding-after, padding-start,  
padding-end, padding-top, padding-bottom, padding-left, padding-right,  
region-name, reference-orientation, space-before, space-after, start-indent

For `writing-mode` see the notes in the description of this property!

**Shorthand Properties:** background, background-position, border,  
border-bottom, border-color, border-left, border-right, border-style,  
border-top, border-width, margin, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius,  
axf:border-bottom-right-radius, axf:border-top-left-radius,  
axf:border-top-right-radius, axf:border-double-thickness,  
axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow,  
axf:column-fill, axf:column-rule, axf:column-rule-align,  
axf:column-rule-color, axf:column-rule-display, axf:column-rule-length,  
axf:column-rule-style, axf:column-rule-width, axf:diagonal-border-color,  
axf:diagonal-border-style, axf:diagonal-border-width, axf:footnote-align,  
axf:footnote-keep, axf:footnote-max-height, axf:footnote-position,  
axf:footnote-stacking, axf:reverse-diagonal-border-color,  
axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width

**Parent Objects:** <fo:simple-page-master>

**Child Objects:** –

<fo:region-end>

This object is used to specify, within a page master (<fo:simple-page-master>), the region that lies behind the main region (<fo:region-body>) on the page along the primary writing direction. For the left-right writing mode, this is the right page region next to the main region.

In the XSL specification, the order of the page regions is fixed: (region-body+, region-before?, region-after?, region-start?, region-end?)

The order of processing in the formatter is not defined. But if parts of the regions overlap each other, it is important which region comes first. The AH XSL Formatter handles the processing of the regions in any order, but exactly in the given order. If the <fo:region-body> is specified as the last region, then it will be above the other page regions.

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, clip, display-align, extent, overflow, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, region-name

For reference-orientation and writing-mode see the notes in the description of these properties!

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** `afx:border-radius`, `afx:border-bottom-left-radius`,  
`afx:border-bottom-right-radius`, `afx:border-top-left-radius`,  
`afx:border-top-right-radius`, `afx:border-double-thickness`,  
`afx:border-triple-thickness`, `afx:border-wave-form`, `afx:box-shadow`,  
`afx:diagonal-border-color`, `afx:diagonal-border-style`,  
`afx:diagonal-border-width`, `afx:reverse-diagonal-border-color`,  
`afx:reverse-diagonal-border-style`, `afx:reverse-diagonal-border-width`

**Parent Objects:** `<fo:simple-page-master>`

**Child Objects:** –

`<fo:region-start>`

This object is used to specify, within a page master (`<fo:simple-page-master>`), the region that precedes the main region (`<fo:region-body>`) on the page along the primary writing direction. For the left-right writing mode, this is the left page region next to the main region.

In the XSL specification, the order of the page regions is fixed: (`region-body+`, `region-before?`, `region-after?`, `region-start?`, `region-end?`)

The order of processing in the formatter is not defined. However, if parts of the regions overlap each other, it is important which region comes first. The AH XSL Formatter handles the processing of the regions in any order, but exactly in the given order. If the `<fo:region-body>` is specified as the last region, then it will be above the other page regions.

**Properties:** `background-attachment`, `background-color`,  
`background-image`, `background-repeat`, `background-position-horizontal`,  
`background-position-vertical`, `border-before-color`, `border-before-style`,  
`border-before-width`, `border-after-color`, `border-after-style`,  
`border-after-width`, `border-start-color`, `border-start-style`,  
`border-start-width`, `border-end-color`, `border-end-style`, `border-end-width`,

[border-top-color](#), [border-top-style](#), [border-top-width](#), [border-bottom-color](#), [border-bottom-style](#), [border-bottom-width](#), [border-left-color](#), [border-left-style](#), [border-left-width](#), [border-right-color](#), [border-right-style](#), [border-right-width](#), [clip](#), [display-align](#), [extent](#), [overflow](#), [padding-before](#), [padding-after](#), [padding-start](#), [padding-end](#), [padding-top](#), [padding-bottom](#), [padding-left](#), [padding-right](#) [region-name](#)

For [reference-orientation](#) and [writing-mode](#) see the notes in the description of these properties!

**Shorthand Properties:** [background](#), [background-position](#), [border](#), [border-bottom](#), [border-color](#), [border-left](#), [border-right](#), [border-style](#), [border-top](#), [border-width](#), [padding](#)

**AHF Properties:** [axf:border-radius](#), [axf:border-bottom-left-radius](#), [axf:border-bottom-right-radius](#), [axf:border-top-left-radius](#), [axf:border-top-right-radius](#), [axf:border-double-thickness](#), [axf:border-triple-thickness](#), [axf:border-wave-form](#), [axf:box-shadow](#), [axf:diagonal-border-color](#), [axf:diagonal-border-style](#), [axf:diagonal-border-width](#), [axf:reverse-diagonal-border-color](#), [axf:reverse-diagonal-border-style](#), [axf:reverse-diagonal-border-width](#)

**Parent Objects:** [<fo:simple-page-master>](#)

**Child Objects:** –

[<fo:region-name-specifier>](#)

This object is used to specify a region in a [<fo:flow-target-list>](#).

**Properties:** [region-name-reference](#)

**Parent Objects:** [<fo:flow-target-list>](#)

**Child Objects:** –

[<fo:repeatable-page-master-alternatives>](#)

This object is used to specify a combination of alternative page masters ([<fo:page-sequence-master>](#)) within a page sequence master

([<fo:simple-page-master>](#)). The number of repetitions of the combination may be limited or unlimited. Which of the alternate page templates is applied at a point in the sequence is decided by the application conditions specified for a page template. A typical usage condition for a page template is the application as the first or last, left or right page in a page sequence. [fo:repeatable-page-master-alternatives](#) is the most complex and powerful way of arranging page templates for specifying a page sequence.

**Properties:** [maximum-repeats](#)

**Parent Objects:** [<fo:page-sequence-master>](#)

**Child Objects:** [<fo:conditional-page-master-reference>](#)

[<fo:repeatable-page-master-reference>](#)

This object is used to reference a single page template within a page sequence master ([<fo:page-sequence-master>](#)) that is to be used repeatedly. The number of allowed repetitions is specified with the [maximum-repeats](#) property.

**Properties:** [master-reference](#), [maximum-repeats](#)

**Parent Objects:** [<fo:page-sequence-master>](#)

**Child Objects:** –

[<fo:retrieve-marker>](#)

This object uses the content stored with [<fo:marker>](#) (e.g. chapter or section headings), usually as a living page heading.

**Properties:** [retrieve-class-name](#), [retrieve-position](#), [retrieve-boundary](#)

**Parent Objects:** [<fo:block>](#), [<fo:block-container>](#), [<fo:list-block>](#), [<fo:table-and-caption>](#), [<fo:table>](#), [<fo: bidi-override>](#), [<fo:character>](#), [<fo:external-graphic>](#), [<fo:instream-foreign-object>](#), [<fo:inline>](#), [<fo:inline-container>](#), [<fo:leader>](#)

**Child Objects:** –

### <fo:retrieve-table-marker>

This object is used in conjunction with [<fo:marker>](#) to create living headings in the header or footer of multi-page tables. Typical examples of use are subtotals in the last line of a page or table continuation notes indicating the continuation of the table on the following page.

**Properties:** [retrieve-class-name](#), [retrieve-position-within-table](#), [retrieve-boundary-within-table](#)

**AHF Properties:** [axf:retrieve-table-rows](#)

**Parent Objects:** Only within [<fo:table-cell>](#) in the environments of [<fo:table-footer>](#) or [<fo:table-header>](#) and as child object in [<fo:table>](#) where [fo:table-footer](#) or [fo:table-header](#) is allowed.

**Child Objects:** –

### <fo:root>

This object is the top-level document node of an XML-FO document. It includes the [<fo:layout-master-set>](#) object, the optional [<fo:declarations>](#) object, and one or more [<fo:page-sequence>](#) objects.

**Properties:** [media-usage](#)

**AHF Properties:** [axf:layer-settings](#), [axf:require](#)

**Parent Objects:** –

**Child Objects:** [<fo:declarations>](#), [<fo:bookmark-tree>](#), [<fo:layout-master-set>](#), [<fo:page-sequence>](#), [<fo:page-sequence-wrapper>](#)

**AHF Child Objects:** [<axf:document-info>](#), [<axf:output-volume-info>](#)

### <fo:scaling-value-citation>

This object can be used to output the scaling factor of a graphic.

**Application example:** Graphics or images should be rendered in their original size if possible, unless their width does not fit into the given page. In this case, they should be reduced in size, but not arbitrarily, but in specified reduction levels. The reduction level selected by the



formatter for the graphic is then to be output legibly with fo:scaling-value-citation. This is done by the following template:

```
<xsl:template match="graphic">
<fo:external-graphic src="{@fileref}" id="{generate-id()}"
inline-progression-dimension.maximum="100%"
inline-progression-dimension.optimum="auto"
allowed-width-scale="100% 75% 50% 25% 10% any"
content-width="scale-down-to-fit"/>
<fo:scaling-value-citation ref-id="{generate-id()}" /><xsl:text>%</xsl:text>
</xsl:template>
```

If the images themselves should not have the original size, but only half the size, then one would specify fo:scaling-value-citation as follows:

```
<fo:scaling-value-citation ref-id="{generate-id()}"
intrinsic-scale-value="50%" /><xsl:text>%</xsl:text>
```

If the 10% were then selected by the formatter for an image from the reduction levels specified above, then the reduction would be displayed as 5%.

This example and the corresponding explanations reprinted here were kindly provided by the editor of the standard, Anders Berglund, IBM.

**The useful features for this are:** [format](#), [grouping-size](#), [grouping-separator](#), [intrinsic-scale-value](#), [letter-value](#), [ref-id](#), [scale-option](#)

**Parent Objects:** [<fo:basic-link>](#), [<fo:bidirectional-override>](#), [<fo:block>](#), [<fo:folio-prefix>](#), [<fo:folio-suffix>](#), [<fo:inline>](#), [<fo:leader>](#), [<fo:marker>](#), [<fo:multi-case>](#), [<fo:multi-toggle>](#), [<fo:title>](#), [<fo:wrapper>](#)

**Child Objects:** –

[<fo:simple-page-master>](#) (AHF: extended supported)

This object creates a page template that describes the page geometry.

Such a page template must be created for each page with different page geometry. It can be divided into up to five regions, the main region

(<fo:region-body>), the upper page outer region (<fo:region-before>), the lower page outer region (<fo:region-after>), the left page outer region (margin-start) and the right page outer region (margin-end).

In the AH XSL Formatter, backgrounds or background images, even full-page ones, can also be added to a page template.

**Properties:** background, end-indent, margin-top, margin-bottom, margin-left, margin-right, master-name, page-height, page-width, reference-orientation, space-before, space-after, start-indent, writing-mode

**Shorthand Properties:** margin

**AHF Properties:** axf:background-clip, axf:background-content-type, axf:background-image-resolution, axf:background-origin, axf:background-size, axf:bleed, axf:bleed-bottom, axf:bleed-left, axf:bleed-right, axf:bleed-top, axf:crop-area-visibility, axf:crop-offset, axf:crop-offset-bottom, axf:crop-offset-left, axf:crop-offset-right, axf:crop-offset-top, axf:printer-marks, axf:printer-marks-line-color, axf:printer-marks-line-length, axf:printer-marks-line-width, axf:printer-marks-over-content, axf:printer-marks-spine-width, axf:printer-marks-zero-margin

**Parent Objects:** <fo:layout-master-set>

**Child Objects:** <fo:region-body>, <fo:region-before>, <fo:region-after>, <fo:region-start>, <fo:region-end>

<fo:single-page-master-reference>

This object is used to reference a single page master within a page sequence template (<fo:page-sequence-master>). fo:single-page-master-reference is the most restricted way to specify a page sequence (cf. <fo:repeatable-page-master-reference> and <fo:repeatable-page-master-alternatives>).

**Properties:** master-reference

**Parent Objects:** <fo:page-sequence-master>

## Child Objects: –

`<fo:static-content>`

This object encloses the so-called static content, which is placed on each page or in a sequence of pages in the page outer regions (top, bottom, left, right). Using the `flow-name` property, whose value matches that of `flow-name` of the associated page outer area, e.g. `<fo:region-before>`, one assigns the object to the corresponding page outer area. The static content typically includes the specifications for sequential page numbers (`<fo:page-number>`) and living page headings (`<fo:retrieve-marker>`).

**Properties:** `flow-name`

**AHF Properties:** `axf:baseline-grid`, `axf:baseline-block-snap`

**Parent Objects:** `<fo:page-sequence>`

**Child Objects:** `<fo:block>`, `<fo:block-container>`, `<fo:list-block>`,  
`<fo:table-and-caption>`, `<fo:table>`

`<fo:table>`

This object includes the tabularly arranged contents of a table (without a table caption!). Child objects are (in the order given here) the column specifications (`<fo:table-column>`; optional and as many as the table has columns), a table header (`<fo:table-header>`; optional), a table footer (`<fo:table-footer>`; optional), and the table body (`<fo:table-body>`). For tables that should have a table caption, use the table root object `<fo:table-and-caption>`!

**Properties:** `background-attachment`, `background-color`,  
`background-image`, `background-repeat`, `background-position-horizontal`,  
`background-position-vertical`, `block-progression-dimension`,  
`border-after-precedence`, `border-before-precedence`, `border-collapse`,  
`border-end-precedence`, `border-separation`, `border-start-precedence`,

break-after, break-before, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, end-indent, height, id, inline-progression-dimension, intrusion-displace, keep-together, keep-with-next, keep-with-previous, margin-top, margin-bottom, margin-left, margin-right, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, role, source-document, space-before, space-after, start-indent, table-layout, table-omit-footer-at-break, table-omit-header-at-break, width

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, margin, padding

**AHF Properties:** axf:annotation-author, axf:annotation-border-style, axf:annotation-border-width, axf:annotation-border-color, axf:annotation-color, axf:annotation-contents, axf:annotation-file-attachment, axf:annotation-flags, axf:annotation-font-family, axf:annotation-font-size, axf:annotation-font-style, axf:annotation-font-weight, axf:annotation-height, axf:annotation-icon-name, axf:annotation-open, axf:annotation-position-horizontal, axf:annotation-position-vertical, axf:annotation-text-align, axf:annotation-text-color, axf:annotation-title, axf:annotation-type, axf:annotation-width, axf:baseline-grid, axf:baseline-block-snap, axf:base-uri, axf:border-connection-form, axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius,

afx:border-top-right-radius, afx:border-double-thickness,  
afx:border-triple-thickness, afx:border-wave-form, afx:box-shadow,  
afx:destination-type, afx:diagonal-border-color, afx:diagonal-border-style,  
afx:diagonal-border-width, , afx:justify-nbsp, afx:kansuji-grouping-letter,  
afx:kansuji-letter, afx:kansuji-style, afx:keep-together-within-dimension,  
afx:kerning-mode, afx:ligature-mode, afx:line-break,  
afx:normalize, afx:normalize-exclude, afx:number-transform,  
afx:pdftag, afx:punctuation-spacing, afx:punctuation-trim,  
afx:reverse-diagonal-border-color, afx:reverse-diagonal-border-style,  
afx:reverse-diagonal-border-width, afx:soft-hyphen-treatment,  
afx:table-auto-layout-limit, afx:table-summary, afx:text-autospace,  
afx:text-autospace-width, afx:text-combine-horizontal, afx:text-justify,  
afx:text-justify-trim, afx:text-kashida-space, afx:text-orientation,  
afx:text-overflow, afx:text-replace, afx:word-break, afx:url-break,  
afx:word-wrap

**Parent Objects:** <fo:basic-link>, <fo:bidir-override>, <fo:block>,  
<fo:block-container>, <fo:float>, <fo:flow>, <fo:footnote-body>, <fo:inline>,  
<fo:inline-container>, <fo:list-item-body>, <fo:list-item-label>,  
<fo:marker>, <fo:multi-case>, <fo:multi-toggle>, <fo:static-content>,  
<fo:table-caption>, <fo:table-cell>, <fo:wrapper>

**Child Objects:** <fo:change-bar-begin>, <fo:change-bar-end>,  
<fo:index-range-begin>, <fo:index-range-end>, <fo:table-column>,  
<fo:table-header>, <fo:table-footer>, <fo:table-body>,  
furthermore – only there where fo:table-footer or fo:table-header are  
allowed: <fo:retrieve-table-marker>

<fo:table-and-caption>

This object encloses the table caption (<fo:table-caption>) and then the  
actual table (<fo:table>).

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, break-after, break-before, caption-side, end-indent, id, intrusion-displace, keep-together, keep-with-next, keep-with-previous, margin-top, margin-bottom, margin-left, margin-right, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, role, source-document, space-before, space-after, start-indent, text-align

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, margin, padding

**AHF Properties:** axf:annotation-author, axf:annotation-border-style, axf:annotation-border-width, axf:annotation-border-color, axf:annotation-color, axf:annotation-contents, axf:annotation-file-attachment, axf:annotation-flags, axf:annotation-font-family, axf:annotation-font-size, axf:annotation-font-style, axf:annotation-font-weight, axf:annotation-height, axf:annotation-icon-name, axf:annotation-open, axf:annotation-position-horizontal, axf:annotation-position-vertical, axf:annotation-text-align, axf:annotation-text-color, axf:annotation-title, axf:annotation-type, axf:annotation-width, axf:baseline-grid, axf:baseline-block-snap, axf:base-uri, axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius,

axf:border-top-left-radius, axf:border-top-right-radius,  
axf:border-double-thickness, axf:border-triple-thickness,  
axf:border-wave-form, axf:box-shadow, axf:destination-type,  
axf:diagonal-border-color, axf:diagonal-border-style,  
axf:diagonal-border-width, , axf:justify-nbsp, axf:kansuji-grouping-letter,  
axf:kansuji-letter, axf:kansuji-style, axf:keep-together-within-dimension,  
axf:kerning-mode, axf:ligature-mode, axf:line-break,  
axf:normalize, axf:normalize-exclude, axf:number-transform,  
axf:pdftag, axf:punctuation-spacing, axf:punctuation-trim,  
axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style,  
axf:reverse-diagonal-border-width, axf:soft-hyphen-treatment,  
axf:text-autospace, axf:text-autospace-width, axf:text-combine-horizontal,  
axf:text-justify, axf:text-justify-trim, axf:text-kashida-space,  
axf:text-orientation, axf:text-overflow, axf:text-replace, [axf:url-break](#),  
axf:word-break, axf:word-wrap

**Parent Objects:** <fo:basic-link>, <fo:bidir-override>, <fo:block>,  
<fo:block-container>, <fo:float>, <fo:flow>, <fo:footnote-body>, <fo:inline>,  
<fo:inline-container>, <fo:list-item-body>, <fo:list-item-label>,  
<fo:marker>, <fo:multi-case>, <fo:multi-toggle>, <fo:static-content>,  
<fo:table-caption>, <fo:table-cell>, <fo:wrapper>

**Child Objects:** <fo:change-bar-begin>, <fo:change-bar-end>,  
<fo:index-range-begin>, <fo:index-range-end>, <fo:table-caption>,  
<fo:table>,  
also – only if inside <fo:table-cell> – <fo:retrieve-table-marker>

<fo:table-body>

This object contains the table body, which may consist of one or more table rows (<fo:table-row>) or just one or more table cells (<fo:table-cell>).

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, border-after-precedence, border-before-precedence, border-end-precedence, border-start-precedence, id, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, role, source-document, visibility

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width, axf:table-row-orphans, axf:table-row-widows

**Parent Objects:** <fo:table>

**Child Objects:** <fo:table-row>, <fo:table-cell>



## <fo:table-caption>

This object includes the caption or legend of a table (<fo:table-and-caption>).

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, block-progression-dimension, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, height, id, inline-progression-dimension, intrusion-displace, keep-together, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, role, source-document, width

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width

**Parent Objects:** <fo:table-and-caption>

**Child Objects:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:table-and-caption>, <fo:table>

<fo:table-cell>

This object encloses the contents of table cells. If the table cells are not arranged in table rows (<fo:table-row>), the row structure can also be marked by the properties `starts-row` in the first cell and `ends-row` in the last cell of a row.

For a number of properties here that are equally allowed in <fo:table-column>, the values specified in <fo:table-column> can be taken as the values of this cell using the `from-table-column()` function.

The same sequential ordering of `fo:table-column` and `fo:table-cell` is sufficient.

**Properties:** `background-attachment`, `background-color`, `background-image`, `background-repeat`, `background-position-horizontal`, `background-position-vertical`, `border-before-color`, `border-before-style`, `border-before-width`, `border-after-color`, `border-after-style`, `border-after-width`, `border-start-color`, `border-start-style`, `border-start-width`, `border-end-color`, `border-end-style`, `border-end-width`, `border-top-color`, `border-top-style`, `border-top-width`, `border-bottom-color`, `border-bottom-style`, `border-bottom-width`, `border-left-color`, `border-left-style`, `border-left-width`, `border-right-color`, `border-right-style`, `border-right-width`, `border-after-precedence`, `border-before-precedence`, `border-end-precedence`, `border-start-precedence`, `block-progression-dimension`, `column-number`, `display-align`, `empty-cells`, `ends-row`, `height`, `id`, `inline-progression-dimension`, `number-columns-spanned`, `number-rows-spanned`, `padding-before`, `padding-after`, `padding-start`, `padding-end`, `padding-top`, `padding-bottom`, `padding-left`, `padding-right`, `relative-position`, `relative-align`, `role`, `source-document`, `starts-row`, `width`

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:headers, axf:pdftag, axf:repeat-cell-content-at-break, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width, axf:scope

**Parent Objects:** <fo:table-body>, <fo:table-footer>, <fo:table-header>, <fo:table-row>

**Child Objects:** <fo:marker> (if applicable as first object), <axf:table-cell-repeated-marker> (if applicable, directly after <fo:marker> otherwise as first object), <fo:block>, <fo:block-container>, <fo:list-block>, <fo:table-and-caption>, <fo:table>

**AHF Child Objects:** <axf:table-cell-repeated-marker>

<fo:table-column>

This object can be used to specify properties of table cells that are in the column designated by `column-number`. In the AH XSL Formatter, specifying the `column-number` is unnecessary. The column specifications are simply assigned to the columns automatically according to their order.

The property values specified here for the columns can be applied to the table cells (<fo:table-cell>) of the given column using the `from-table-column()` function.

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-before-color, border-before-precedence, border-before-style, border-before-width, border-after-color, border-after-precedence, border-after-style, border-after-width, border-start-color, border-start-precedence, border-start-style, border-start-width, border-end-color, border-end-precedence, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, column-number, column-width, number-columns-repeated, number-columns-spanned, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, visibility

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width

**Parent Objects:** <fo:table>

**Child Objects:** –

## <fo:table-footer>

This object includes the contents of a table footer, which is automatically repeated on each page if the table is wrapped on multiple pages. Like the table body (<fo:table-body>), the table footer can consist of either one or more table rows (<fo:table-row>) or only table cells (<fo:table-cell>).

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-before-color, border-before-style, border-before-width, border-after-color, border-after-precedence, border-before-precedence, border-end-precedence, border-start-precedence, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, id, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, role, source-document, visibility

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:repeat-footnote-in-table-footer, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width

**Parent Objects:** <fo:table>

**Child Objects:** <fo:table-row>, <fo:table-cell>, there subordinated within a block object also <fo:retrieve-table-marker>

<fo:table-header>

This object includes the contents of a table header, which is automatically repeated on each page if the table is wrapped on multiple pages. Like the table body (<fo:table-body>), the table header can consist of either one or more table rows (<fo:table-row>) or only table cells (<fo:table-cell>).

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-after-precedence, border-before-precedence, border-end-precedence, border-start-precedence, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, id, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, relative-position, role, source-document, visibility

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness,

axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow,  
axf:diagonal-border-color, axf:diagonal-border-style,  
axf:diagonal-border-width, axf:repeat-footnote-in-table-header,  
axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style,  
axf:reverse-diagonal-border-width

**Parent Objects:** <fo:table>

**Child Objects:** <fo:table-row>, <fo:table-cell>, there subordinated within  
a block object also <fo:retrieve-table-marker>

<fo:table-row>

This object is used to concatenate table cells (<fo:table-cell>) into a  
table row.

**Properties:** background-attachment, background-color,  
background-image, background-repeat, background-position-horizontal,  
background-position-vertical, block-progression-dimension,  
border-before-color, border-before-style, border-before-width,  
border-after-color, border-after-precedence, border-before-precedence,  
border-end-precedence, border-start-precedence, border-after-style,  
border-after-width, border-start-color, border-start-style,  
border-start-width, border-end-color, border-end-style, border-end-width,  
border-top-color, border-top-style, border-top-width, border-bottom-color,  
border-bottom-style, border-bottom-width, border-left-color,  
border-left-style, border-left-width, border-right-color,  
border-right-style, border-right-width, break-after, break-before, id,  
height, keep-together, keep-with-next, keep-with-previous, padding-before,  
padding-after, padding-start, padding-end, padding-top, padding-bottom,  
padding-left, padding-right, relative-position, role, source-document,  
visibility

**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width

**Parent Objects:** <fo:table-body>, <fo:table-footer>, <fo:table-header>

**Child Objects:** <fo:table-cell>

<fo:title>

This object allows to add a title to a page sequence.

**Properties:** background-attachment, background-color, background-image, background-repeat, background-position-horizontal, background-position-vertical, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, color, font-family, font-selection-strategy, font-size, font-stretch, font-size-adjust, font-style, font-variant, font-weight, line-height, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, role, source-document, space-end, space-start, visibility



**Shorthand Properties:** background, background-position, border, border-bottom, border-color, border-left, border-right, border-style, border-top, border-width, font, padding

**AHF Properties:** axf:border-radius, axf:border-bottom-left-radius, axf:border-bottom-right-radius, axf:border-top-left-radius, axf:border-top-right-radius, axf:border-double-thickness, axf:border-triple-thickness, axf:border-wave-form, axf:box-shadow, axf:diagonal-border-color, axf:diagonal-border-style, axf:diagonal-border-width, axf:pdftag, axf:reverse-diagonal-border-color, axf:reverse-diagonal-border-style, axf:reverse-diagonal-border-width

**Parent Objects:** <fo:page-sequence>

**Child Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:character>, <fo:external-graphic>, <fo:index-page-citation-list>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>, <fo:multi-toggle>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:scaling-value-citation>

<fo:wrapper>

This object is used to specify inheritable properties for a group of child formatting objects. With the index-key property, <fo:wrapper> wraps a tab term in the text flow. Thus, although the index term is not visible in the text flow, it is physically present for page referencing from the index.

**Properties:** id, index-key

**Parent Objects:** <fo:block>

**Child Objects:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:instream-foreign-object>, <fo:inline>, <fo:inline-container>, <fo:leader>, <fo:list-block>, <fo:multi-toggle>, <fo:page-number>,

`<fo:page-number-citation>`, `<fo:page-number-citation-last>`,  
`<fo:table-and-caption>`, `<fo:table>`, `<fo:scaling-value-citation>`

## 1.2 Properties

The XSL-FO properties are sorted alphabetically. After a short description of the function, the objects with which the given property can be used are listed. In addition, the value range, the default value, if any, and the inheritance feature are mentioned.

As far as properties in the Antenna House XSL Formatter are not supported or are supported in an extended way, this is marked in each case.

The referenced objects and properties are linked to their description.

Only those XSL-FO properties are taken into account that refer to PDF or print generation.

First, the syntax for representing the range of property values is explained. Then the data types standing for complex property values are briefly described.

### 1.2.1 The Syntax for the Property Value Types

<>

The angle brackets enclose a property data type that is generally defined and specified in the standard. Individual and concrete attribute values are not enclosed in angle brackets. The angle brackets are not to be confused with delimiters for XML element tags.

- | stands between alternatives. Only one of which may be used (according to the XML DTD syntax).
- || stands between options. One or more of which can be used in any order.
- [] encloses group instructions for property values (according to the round brackets in the XML DTD syntax).
- \* specifies that the preceding expression is optional, but can also be specified repeatedly (according to the XML DTD syntax).
- + specifies that the preceding expression can be specified once or repeatedly (according to the XML DTD syntax).
- ? specifies that the preceding expression is optional (according to the XML DTD syntax).
- { } encloses a pair of numbers that specifies with minimum and maximum value how often an expression may occur.

## 1.2.2 Value Types

The following is a list of property data types that denote complex ranges of values.

### <absolute-size>

Absolute font sizes: xx-small, x-small, small, medium, large, x-large, xxlarge.  
The allocation of the real font sizes is left to the formatter product.

### <angle>

An angle specification. Permissible values are 0, 90, 180 or 270 degrees.

### <border-style>

Border style of a block: none, dotted, dashed, solid, double, groove, ridge, inset or outset.

AHF Extensions: hidden, thin-thick-thin, triple, thick-thin, thin-thick, dot-dash, dot-dot-dash, emboss, imprint, double-wave and wave.

### <border-width>

Border width of a block: thin | medium | thick. The allocation of the real width is left to the formatter product.

### <character>

Specification of a Unicode character, either as a literal character or as an XML character reference, e.g. &#x20AC; for the € character.

### <color>

Color: a predefined color value or a color value in one of the supported color profiles.

<language-country>

A language key according to ISO 639 (<language>), optionally also a country key according to ISO 3166 (<country>).

<family-name>

Font name: e.g. Arial Unicode MS, Helvetica, Courier New and others.

<generic-family>

Generic font name: e.g. serif (serif font, antiqua), sans-serif (sans-serif font), and monospace (monospace font).

<integer>

An integer numerical value.

<keep>

A value for keeping formatting objects together. With the additional qualifier `.within-line` it applies to keeping together in the line, with `.within-column` in the column, with `.within-page` in the page. The value `auto` causes no keeping together, the value `always` causes keeping together without constraints. A value `<integer>` causes restricted keeping together. The degree of constraint by a numeric value is determined by conflicting `keep-together` values.

<language>

A language key according to ISO 639 (<language>), e.g. `de` for German, `en` for English.

<length>

Length. The value can start with `+` or `-`, then a number, also with decimal point, followed by a unit identifier: `em` (width of an M in the

font size used), ex (height of the x character of the font), px (pixels), pt (points, 1/72 inch), in (inches), cm (centimeters), mm (millimeters), or pc (picas, 1/6 inch).

In the AH XSL Formatter, a number of other measurement units are added.

#### <length-bp-ip-direction>

A combined length specification consisting of the one for the writing direction of blocks (vertical, in left-right writing direction) and the one for inline objects (horizontal, in left-right writing direction).

#### <length-conditional>

Conditional length specification with .length and .conditionality components. The .length component is a value of type <length>.

The .conditionality component is either discard (the value is ignored under certain surrounding conditions) or retain (the value is valid under all conditions).

#### <length-range>

Length specification with an additional marking as minimum value (.minimum) or optimum value (.optimum) or maximum value (.maximum).

#### <margin-width>

Margin width consisting of a length value (<length>), a percentage value (<percentage>), or auto. The auto value is context-dependent.

#### <name>

A name that formally complies with the XML syntax.

#### <number>

A real number, possibly prefixed by a plus or minus sign, and possibly delimited by decimal points. For attributes where <number> is allowed as a value range, plus or minus restrictions may be specified. Also, the value range may be restricted to integer numeric values (without decimal point).

#### <padding-width>

A length specification (<length>) or percentage specification (<percentage>).

#### <percentage>

A number that can have a prefix followed by percent sign (%).

#### <relative-size>

A font size relative to the font size of the parent object: larger or smaller.

#### <shape>

Description of the rectangular cropping of a formatting object, typically an image: rect (<top> <right> <bottom> <left>). <top>, <right>, <bottom> and <left> specify a distance from the outer edge of the formatting object. <top>, <right>, <bottom> and <left> can have a value of type <length>, possibly a negative one, or the value auto. auto is equivalent to the value 0pt.

#### <space>

Space. The components .minimum, .optimum and .maximum are <length> values. The values for component .precedence are either force or an

`<integer>`. The values for component `.conditionality` are either `discard` or `retain`.

`<string>`

A string of any characters.

`<symbol>`

A sign or symbol.

`<uri-specification>`

Uniform Resource Identifier (URI): e.g. an address of an external resource, e.g. a graphic or an external reference destination that complies with the URI syntax.

`<value>`

Alternatively, the data type `value` can be a data type `<number>` or `<length>`.

### 1.2.3 Properties

`absolute-position`

The property positions a block container in the page. With the default value `auto` the block container is positioned in the text flow according to the given arrangement of the blocks (vertically, in the usual arrangement for European languages). With the value `absolute` the block container will be positioned fixed within its region, with the value `fixed` within the page (without taking into account the surrounding region).



**Applies to:** <fo:block-container>

**Values:** auto | absolute | fixed

**Initial:** auto

**Inherited:** no

active-state (AHF: not supported)

This property sets which of the child flow objects can be processed with <fo:multi-property-set>. The property is relevant only in dynamic uses of the formatted result.

**Applies to:** <fo:multi-property-set>

**Values:** link | visited | active | hover | focus

**Initial:** none

**Inherited:** no

alignment-adjust

This property sets the alignment baseline position for objects without a baseline table, e.g. graphics. The alignment-adjust property must be seen in conjunction with the [alignment-baseline](#) property. The latter determines the alignment to the dominant baseline (in alphabet environments, this is the line on which characters without descender are placed). With alignment-adjust the alignment defined by alignment-baseline can be corrected. For this purpose, the values that are also defined for alignment-baseline can be used. In addition, these corrections can also be defined by relative or fixed dimensions. For example, if alignment-baseline="baseline" and alignment-adjust="2mm" are set, then the graphic will be aligned with the bottom edge 2 mm above the dominant baseline.

**Applies to:** <fo:basic-link>, <fo:character>, <fo:external-graphic>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,

`<fo:leader>`, `<fo:page-number>`, `<fo:page-number-citation>`,  
`<fo:page-number-citation-last>`

**Values:** auto | baseline | before-edge | text-before-edge | middle |  
central |  
after-edge | text-after-edge | ideographic | alphabetic | hanging |  
mathematical |

`<percentage>` | `<length>`

**Initial:** auto

**Inherited:** no

### alignment-baseline

This property sets the alignment of the baseline position of an object without a baseline table, e.g. a graphic, relative to that of its parent object. In the case of the Latin alphabet, this is based on the line on which the characters without descender are placed. The following refers exclusively to alphabet environments. This line is the dominant baseline. If you set the values auto (default value), baseline or alphabetic, then the lower border of the graphic will be set to this dominant baseline. If one selects the values before-edge, text-before-edge or hanging, then the graphic will be displayed at the header line with the upper border. For most fonts, the header line is slightly above the upper border of the characters with ascender. With the values after-edge, text-after-edge, or ideographic the graphic is placed on the footer line. this is the line to which the character descenders approximately extend. With the value central, the graphic is placed halfway between the text-before-edge and the text-after-edge line. The middle value aligns the graphic vertically at half the height of the x character (font-dependent). The mathematical value is used only for mathematical symbols. These are vertically aligned slightly higher than half the height of the x character.

**Applies to:** <fo:basic-link>, <fo:character>, <fo:external-graphic>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:page-number>, <fo:page-number-citation>

**Values:** auto | baseline | before-edge | text-before-edge | middle | central | after-edge | text-after-edge | ideographic | alphabetic | hanging | mathematical

**Initial:** auto

**Inherited:** no

#### allowed-height-scale

This property sets a list of scaling constraints if graphics are to be scaled in height. With the default value any no constraints are imposed on the scaling.

**Applies to:** <fo:external-graphic>, <fo:instream-foreign-object>

**Values:** [ any | <percentage> ]\*

**Initial:** any

**Inherited:** yes

#### allowed-width-scale

This property sets a list of scaling constraints if graphics are to be scaled in width. With the default value any no constraints are imposed on the scaling.

**Applies to:** <fo:external-graphic>, <fo:instream-foreign-object>

**Values:** [ any | <percentage> ]\*

**Initial:** any

**Inherited:** yes

auto-restore (AHF: not supported)

This property allows to restore a `<fo:multi-case>` object as soon as the `<fo:multi-switch>` becomes invisible (relevant only in dynamic uses of the formatted result).

**Applies to:** fo:multi-switch

**Values:** true | false

**Initial:** false

**Inherited:** yes

background (AHF: extended supported)

This shorthand property simultaneously sets the corresponding background properties instead of the individual properties, either for color (`background-color`), or for a background image (`background-image`), for image tiling (`background-repeat`), for image anchoring (`background-attachment`) and image positioning (`background-position`).

In the AH XSL Formatter, a background can also be underlayed in page templates (`<fo:simple-page-master>`) and page sequences (`<fo:page-sequence>`). In addition, according to the CSS concept for backgrounds, there is the possibility to display a number of images in one background. For each image can thereby be specified: the path (`background-image`), the positioning in the page (`background-position`), the tiling (`background-repeat`), the fixation `background-attachment`, the clip area `afx:background-clip` and the positioning of the image original `afx:background-origin`. The specifications for individual images with their properties must be separated by commas, the property values by spaces. According to the order of the images with their specific settings, they are arranged in the background in descending order. The last arrangement level can be a color (`background-color`), which is subject to the whole background.

If a background is defined for a page master (`<fo:simple-page-master>`), the background set for a page sequence (`<fo:page-sequence>`) is ignored.

**Applies to:** `<fo:simple-page-master>`, `<fo:page-sequence>`, `<fo:basic-link>`, `<fo:block>`, `<fo:block-container>`, `<fo:character>`, `<fo:external-graphic>`, `<fo:initial-property-set>`, `<fo:inline>`, `<fo:inline-container>`, `<fo:instream-foreign-object>`, `<fo:leader>`, `<fo:list-block>`, `<fo:list-item>`, `<fo:page-number>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`, `<fo:region-after>`, `<fo:region-before>`, `<fo:region-body>`, `<fo:region-end>`, `<fo:region-start>`, `<fo:table>`, `<fo:table-and-caption>`, `<fo:table-body>`, `<fo:table-caption>`, `<fo:table-cell>`, `<fo:table-column>`, `<fo:table-footer>`, `<fo:table-header>`, `<fo:table-row>`, `<fo:title>`

**Values:** [ `background-color background-color` || `background-image` || `background-repeat` || `background-attachment` || `background-position` ]

**Values, AH XSL Formatter only:** [ `<bg-layer>`, ]\* `<final-bg-layer>`  
`<bg-layer>` = `<background-image>` || `<background-position>` [ / `<afx:background-size>` ]? || `<background-repeat>` || `<background-attachment>` || `<afx:background-clip>` || `<afx:background-origin>`  
`<final-bg-layer>` = `<bg-layer>` || `<background-color>`

**Initial:** see the corresponding single properties.

**Inherited:** no

## background-attachment

This property sets to what extent the background should be scrolled. With the fixed value, the background is fixed in position if the foreground object is scrolled. With the default value scroll, the background scrolls with the foreground object. With the local value, the background is bound to the pictorial objects.

**Applies to:** `<fo:simple-page-master>`, `<fo:page-sequence>`, `<fo:basic-link>`, `<fo:block>`, `<fo:block-container>`, `<fo:character>`, `<fo:external-graphic>`, `<fo:initial-property-set>`, `<fo:inline>`, `<fo:inline-container>`,

<fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** scroll | fixed | local

**Initial:** scroll

**Inherited:** no

## background-color

This property sets the background color.

**Applies to:** <fo:simple-page-master>, <fo:page-sequence>, <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <color> | transparent

**Initial:** transparent

**Inherited:** no

## background-image (AHF: extended supported)

This property sets the background image. The URI specification is used to reference the external image. The functions [linear-gradient\(\)](#), [radial-gradient\(\)](#), [repeating-linear-gradient\(\)](#) or

`repeating-radial-gradient()` can be used to specify a complex gradient instead of an image.

**Applies to:** `<fo:simple-page-master>`, `<fo:page-sequence>`, `<fo:basic-link>`, `<fo:block>`, `<fo:block-container>`, `<fo:character>`, `<fo:external-graphic>`, `<fo:initial-property-set>`, `<fo:inline>`, `<fo:inline-container>`, `<fo:instream-foreign-object>`, `<fo:leader>`, `<fo:list-block>`, `<fo:list-item>`, `<fo:page-number>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`, `<fo:region-after>`, `<fo:region-before>`, `<fo:region-body>`, `<fo:region-end>`, `<fo:region-start>`, `<fo:table>`, `<fo:table-and-caption>`, `<fo:table-body>`, `<fo:table-caption>`, `<fo:table-cell>`, `<fo:table-column>`, `<fo:table-footer>`, `<fo:table-header>`, `<fo:table-row>`, `<fo:title>`

**Values:** `<uri-specification>` | none

**Initial:** none

**Inherited:** no

## background-position

This shorthand property sets the positioning of a background image (`background-position-horizontal`, `background-position-vertical`). If only a percentage value is set, then this is taken for the horizontal positioning. The missing value for vertical positioning is assumed to be 50%. If two values are set, the first applies to horizontal positioning, the second to vertical positioning. The combination of relative and absolute values is allowed.

**Applies to:** `<fo:simple-page-master>`, `<fo:page-sequence>`, `<fo:basic-link>`, `<fo:block>`, `<fo:block-container>`, `<fo:character>`, `<fo:external-graphic>`, `<fo:initial-property-set>`, `<fo:inline>`, `<fo:inline-container>`, `<fo:instream-foreign-object>`, `<fo:leader>`, `<fo:list-block>`, `<fo:list-item>`, `<fo:page-number>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`, `<fo:region-after>`, `<fo:region-before>`, `<fo:region-body>`, `<fo:region-end>`, `<fo:region-start>`, `<fo:table>`, `<fo:table-and-caption>`, `<fo:table-body>`,

<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** [ [ <percentage> | <length> | left | center | right | top | bottom ]  
{1,2} ]#

**Initial:** 0% 0%

**Inherited:** no

#### background-position-horizontal

This property sets the horizontal positioning of a background image. The value left corresponds to 0%, center corresponds to 50%, right corresponds to 100%.

**Applies to:** <fo:simple-page-master>, <fo:page-sequence>, <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** [ <percentage> | <length> | left | center | right ]#

**Initial:** 0%

**Inherited:** no

#### background-position-vertical

This property sets the vertical positioning of a background image. The value top corresponds to 0%, center corresponds to 50%, bottom corresponds to 100%.

**Applies to:** <fo:simple-page-master>, <fo:page-sequence>, <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>,</p></div>



<fo:initial-property-set>, <fo:inline>, <fo:inline-container>,  
<fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>,  
<fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** [ <percentage> | <length> | top | center | bottom ]#

**Initial:** 0%

**Inherited:** no

## background-repeat

This property sets the characteristics of tiling (repeating the background image) for the background. With the default value repeat the background image is repeated both horizontally and vertically within the given block, with the value repeat-x only in horizontal direction, with repeat-y only in vertical direction. If you want to avoid the repetition, set the value no-repeat.

The paginate value has an effect when embedding multiple PDF pages. Thus each embedded PDF page also creates a page in the PDF output. For other formats the paginate value corresponds to no-repeat.

**Applies to:** <fo:simple-page-master>, <fo:page-sequence>, <fo:basic-link>,  
<fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>,  
<fo:initial-property-set>, <fo:inline>, <fo:inline-container>,  
<fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>,  
<fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** [ repeat-x | repeat-y | paginate | [repeat | space | round | no-repeat]{1,2} ]#

**Initial:** repeat

**Inherited:** no

#### baseline-shift

This property sets the dominant baseline of a child object (an inline markup) relative to the dominant baseline of the parent object. For alphabet environments, the dominant baseline is the line on which characters without descenders are placed. With the default value `baseline`, the dominant baseline remains in the position of the dominant baseline of the parent object. With the `sub` value, the dominant baseline is shifted down, so the contents of the child object are subscript relative to the environment. With the value `super` the content is superscripted. The amount of shifting is font and formatter dependent. If a percentage value is specified, this percentage value is related to the line height of the parent object. A positive value will shift up, a negative value will shift down. If an absolute unit of measurement is specified, a positive value is shifted up accordingly, and a negative value is shifted down accordingly.

**Applies to:** `<fo:basic-link>`, `<fo:character>`, `<fo:external-graphic>`, `<fo:inline>`, `<fo:inline-container>`, `<fo:instream-foreign-object>`, `<fo:leader>`, `<fo:page-number>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`

**Values:** `baseline` | `sub` | `super` | `<percentage>` | `<length>`

**Initial:** `baseline`

**Inherited:** no

## blank-or-not-blank

As part of a page-master application rule ([<fo:simple-page-master>](#)), the property sets whether the referenced page master is selected at a particular point in the page sequence. With the blank value, the page template is only used if a page without flowing content needs to be generated (this is typically a left page) so that the following page sequence can start with a right page. With the not-blank value, the page template is used only if the page contains flowing content. For the default value any, the page template is used whether or not it contains flowing content.

**Applies to:** [<fo:conditional-page-master-reference>](#)

**Values:** blank | not-blank | any

**Initial:** any

**Inherited:** no

## block-progression-dimension

This property sets the height (in the left-right-top-bottom writing direction common for European languages) for the objects below. This property does not take effect if the height for this object is set by line-height. With the default value auto, no constraints are set for the height. The formatter calculates the height by the other constraints set for this environment. A fixed value in one of the valid units of measurement can be used to specify the exact height. A percentage value can be used to specify the height relative to the corresponding dimension of the nearest ancestor area formed by a block object. By specifying the block-progression-dimension property and appending the .minimum, .optimum, and .maximum components, the value can be flexibly specified in the minimum-maximum constraints and the specification of an optimum height.

**Applies to:** <fo:block-container>, <fo:external-graphic>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:table>, <fo:table-caption>, <fo:table-cell>, <fo:table-row>

**Values:** auto | <length> | <percentage> | <length-range>

**Initial:** auto

**Inherited:** no

## border

This shorthand property simultaneously sets the width, color, and style properties ([border-width](#), [border-color](#), and [border-style](#)) for the border of all four sides of a block.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** [ <border-width> || <border-style> || [ <color> | transparent ] ]

**Initial:** see the corresponding single properties.

**Inherited:** no

## border-after-color

This property sets the color of the after border. With the value transparent the border is transparent, nevertheless it may have a width.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,

<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <color> | transparent

**Initial:** <color> value

**Inherited:** no

#### border-after-precedence

This property sets the precedence of the border specification over a conflicting specification for the after border within a table. The force value sets precedence over all numeric values. A higher integer numeric value defines precedence over a lower value.

**Applies to:** <fo:table>, <fo:table-body>, <fo:table-cell>, <fo:table-column>,  
<fo:table-footer>, <fo:table-header>, <fo:table-row>

**Values:** force | <integer>

**Initial:** <fo:table>: 6, <fo:table-cell>: 5, <fo:table-column>: 4, <fo:table-row>: 3, <fo:table-body>: 2, <fo:table-header>: 1, <fo:table-footer>: 0

**Inherited:** no

#### border-after-style (AHF: extended supported)

This property sets the style of the after border. Additional border styles are available for selection in the AH XSL Formatter.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,

<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-style>

**Initial:** none

**Inherited:** no

#### border-after-width

This property sets the width of the after border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-width> | <length-conditional>

**Initial:** medium

**Inherited:** no

#### border-before-color

This property sets the color of the before border. With the value transparent the border is transparent, nevertheless it may have a width.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,

<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Initial:** <color> value

**Values:** <color> | transparent

**Inherited:** no

#### border-before-precedence

This property sets the precedence of the border specification over a conflicting specification for the before border within a table. The force value sets precedence over all numeric values. A higher integer numeric value defines precedence over a lower value.

**Applies to:** <fo:table>, <fo:table-body>, <fo:table-cell>, <fo:table-column>,  
<fo:table-footer>, <fo:table-header>, <fo:table-row>

**Values:** force | <integer>

**Initial:** <fo:table>: 6, <fo:table-cell>: 5, <fo:table-column>: 4, <fo:table-row>: 3, <fo:table-body>: 2, <fo:table-header>: 1, <fo:table-footer>: 0

**Inherited:** no

#### border-before-style (AHF: extended supported)

This property sets the style of the before border. Additional border styles are available for selection in the AH XSL Formatter.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,

<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-style>

**Initial:** none

**Inherited:** no

#### border-before-width

This property sets the width of the before border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-width> | <length-conditional>

**Initial:** medium

**Inherited:** no

#### border-bottom

This shorthand property sets the width, color, and style properties ([border-width](#), [border-color](#), and [border-style](#)) for the bottom border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>



<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** [ <border-width> || <border-style> || [ <color> | transparent ] ]

**Initial:** see the corresponding single properties.

**Inherited:** no

#### border-bottom-color

This property sets the color of the bottom border. With the value transparent the border is transparent, nevertheless it may have a width.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <color> | transparent

**Initial:** <color> value

**Inherited:** no

#### border-bottom-style (AHF: extended supported)

This property sets the style of the bottom border. Additional border styles are available for selection in the AH XSL Formatter.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,

<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-style>

**Initial:** none

**Inherited:** no

### border-bottom-width

This property sets the width of the bottom border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-width>

**Initial:** medium

**Inherited:** no

### border-collapse

This property sets the border model of a table. With the collapse value the adjacent border collapse, with separate the borders are each treated separately. The space between adjacent borders is background between table rows and cells.

**Applies to:** <fo:table>

**Values:** collapse | separate

**Initial:** collapse

**Inherited:** yes

#### border-color

This shorthand property simultaneously sets the color for the border of all four sides of a block. With the value transparent the border is transparent, nevertheless it may have a width.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** [ <color> | transparent ] {1,4}

**Initial:** see the corresponding single properties.

**Inherited:** no

#### border-end-color

This property sets the color of the end border (with writing direction left-right this is the right border). With the value transparent the border is transparent, nevertheless it may have a width.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,

<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <color> | transparent

**Initial:** <color> value

**Inherited:** no

#### border-end-precedence

This property sets the precedence of the border specification over a conflicting specification for the end border within a table (with writing direction left-right this is the right border). The force value sets precedence over all numeric values. A higher integer numeric value defines precedence over a lower value.

**Applies to:** <fo:table>, <fo:table-body>, <fo:table-cell>, <fo:table-column>,  
<fo:table-footer>, <fo:table-header>, <fo:table-row>

**Values:** force | <integer>

**Initial:** <fo:table>: 6, <fo:table-cell>: 5, <fo:table-column>: 4, <fo:table-row>: 3, <fo:table-body>: 2, <fo:table-header>: 1, <fo:table-footer>: 0

**Inherited:** no

#### border-end-style (AHF: extended supported)

This property sets the style of the end border (with writing direction left-right this is the right border). Additional border styles are available for selection in the AH XSL Formatter.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,

<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-style>

**Initial:** none

**Inherited:** no

#### border-end-width

This property sets the width of the end border (with writing direction left-right this is the right border).

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-width> | <length-conditional>

**Initial:** medium

**Inherited:** no

#### border-left

This shorthand property sets the width, color, and style properties (**border-width**, **border-color**, and **border-style**) of the left border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,

<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** [ <border-width> || <border-style> || [ <color> | transparent ] ]

**Initial:** see the corresponding single properties.

**Inherited:** no

#### border-left-color

This property sets the color of the left border. With the value transparent the border is transparent, nevertheless it may have a width.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <color> | transparent

**Initial:** <color> value

**Inherited:** no

#### border-left-style (AHF: extended supported)

This property sets the style of the left border. Additional border styles are available for selection in the AH XSL Formatter.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-style>

**Initial:** none

**Inherited:** no

#### border-left-width

This property sets the width of the left border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-width>

**Initial:** medium

**Inherited:** no

## border-right

This shorthand property sets the width, color, and style properties (`border-width`, `border-color`, and `border-style`) of the right border.

**Applies to:** `<fo:basic-link>`, `<fo:block>`, `<fo:block-container>`, `<fo:character>`, `<fo:external-graphic>`, `<fo:initial-property-set>`, `<fo:inline>`, `<fo:inline-container>`, `<fo:instream-foreign-object>`, `<fo:leader>`, `<fo:list-block>`, `<fo:list-item>`, `<fo:page-number>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`, `<fo:region-after>`, `<fo:region-before>`, `<fo:region-body>`, `<fo:region-end>`, `<fo:region-start>`, `<fo:table>`, `<fo:table-and-caption>`, `<fo:table-body>`, `<fo:table-caption>`, `<fo:table-cell>`, `<fo:table-column>`, `<fo:table-footer>`, `<fo:table-header>`, `<fo:table-row>`, `<fo:title>`

**Values:** [ `border-top-width` || `<border-style>` || [ `<color>` | transparent ] ]

**Initial:** see the corresponding single properties.

**Inherited:** no

## border-right-color

This property sets the color of the right border. With the value `transparent` the border is transparent, nevertheless it may have a width.

**Applies to:** `<fo:basic-link>`, `<fo:block>`, `<fo:block-container>`, `<fo:character>`, `<fo:external-graphic>`, `<fo:initial-property-set>`, `<fo:inline>`, `<fo:inline-container>`, `<fo:instream-foreign-object>`, `<fo:leader>`, `<fo:list-block>`, `<fo:list-item>`, `<fo:page-number>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`, `<fo:region-after>`, `<fo:region-before>`, `<fo:region-body>`, `<fo:region-end>`, `<fo:region-start>`, `<fo:table>`, `<fo:table-and-caption>`, `<fo:table-body>`, `<fo:table-caption>`, `<fo:table-cell>`, `<fo:table-column>`, `<fo:table-footer>`, `<fo:table-header>`, `<fo:table-row>`, `<fo:title>`

**Values:** `<color>` | transparent



**Initial:** <color> value

**Inherited:** no

border-right-style (AHF: extended supported)

This property sets the style of the right border. Additional border styles are available for selection in the AH XSL Formatter.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-style>

**Initial:** none

**Inherited:** no

border-right-width

This property sets the width of the right border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-style>

**Initial:** medium

**Inherited:** no

#### border-separation

This property sets the width/height between adjacent cells/rows in a table.

**Applies to:** <fo:table>

**Values:** <length-bp-ip-direction>

**Initial:** border-separation.block-progression-direction="0pt", border-separation.inline-progression-direction="0pt"

**Inherited:** yes

#### border-spacing

This property sets the spacing between adjacent cells/rows in a table. If only one value is specified, it applies to both horizontal and vertical spacing. If two values are specified, the first value applies to the horizontal, the second to the vertical spacing.

**Applies to:** <fo:table>

**Values:** <length> <length>?

**Initial:** 0pt

**Inherited:** yes

#### border-start-color

This property sets the color of the start border (with writing direction left-right this is the left border). With the value transparent the border is transparent, nevertheless it may have a width.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,

<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <color> | transparent

**Initial:** <color> value

**Inherited:** no

#### border-start-precedence

This property sets the precedence of the border specification over a conflicting specification for the start border within a table (with writing direction left-right this is the left border). The force value sets precedence over all numeric values. A higher integer numeric value defines precedence over a lower value.

**Applies to:** <fo:table>, <fo:table-body>, <fo:table-cell>, <fo:table-column>,  
<fo:table-footer>, <fo:table-header>, <fo:table-row>

**Values:** force | <integer>

**Initial:** <fo:table>: 6, <fo:table-cell>: 5, <fo:table-column>: 4, <fo:table-row>: 3, <fo:table-body>: 2, <fo:table-header>: 1, <fo:table-footer>: 0

**Inherited:** no

#### border-start-style (AHF: extended supported)

This property sets the style of the start border (with writing direction left-right this is the left border). Additional border styles are available for selection in the AH XSL Formatter.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,

<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-style>

**Initial:** none

**Inherited:** no

### border-start-width

This property sets the width of the start border (with writing direction left-right this is the left border).

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-width> | <length-conditional>

**Initial:** medium

**Inherited:** no

### border-style (AHF: extended supported)

This shorthand property simultaneously sets the style for the border of all four sides of a block. Additional border styles are available for selection in the AH XSL Formatter.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-style> {1,4}

**Initial:** see the corresponding single properties.

**Inherited:** no

#### border-top

This shorthand property simultaneously sets the width, color, and style properties (**border-width**, **border-color**, and **border-style**) of the top border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** [ <border-width> || <border-style> || [ <color> | transparent ] ]

**Initial:** see the corresponding single properties.

**Inherited:** no

## border-top-color

This property sets the color of the top border. With the value transparent the border is transparent, nevertheless it may have a width.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <color> | transparent

**Initial:** <color> value

**Inherited:** no

## border-top-style (AHF: extended supported)

This property sets the style of the top border. Additional border styles are available for selection in the AH XSL Formatter.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-style>

**Initial:** none

**Inherited:** no

#### border-top-width

This property sets the width of the top border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <border-width>

**Initial:** medium

**Inherited:** no

#### border-width

This shorthand property simultaneously sets the width of the border of all four sides of a block.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** `<border-width>` {1,4}

**Initial:** see the corresponding single properties.

**Inherited:** no

#### bottom

This property sets the bottom border for positioned objects (block containers) within the block or area containing the object.

**Applies to:** positioned objects, especially `<fo:block-container>`.

**Values:** `<length>` | `<percentage>` | auto

**Initial:** auto

**Inherited:** no

#### break-after

This property specifies to what extent the column or page should be wrapped after the given block is completed. With the default value auto no break is forced. The column value will break to the following column, the page value will break to the following page, the even-page value will break to the following left page, and the odd-page value will break to the following right page.

even-document: Page breaks at even-numbered pages counting from the beginning of the document.

odd-document: Page breaks at odd-numbered pages counting from the beginning of the document.

**Applies to:** `<fo:block>`, `<fo:block-container>`, `<fo:list-block>`, `<fo:list-item>`, `<fo:table>`, `<fo:table-and-caption>`, `<fo:table-row>`

**Values:** auto | column | page | even-page | odd-page | even-document | odd-document

**Initial:** auto

**Inherited:** no

See also [axf:break-distance](#)



## break-before

This property specifies to what extent the given block should start with a new column or page. With the default value `auto` no break is forced.

With the `column` value wrapping is forced to the following column, with the `page` value wrapping is forced to the following page, with the `even-page` value wrapping is forced to the following left page and with the `odd-page` value wrapping is forced to the following right page.

`even-document`: Page breaks at even-numbered pages counting from the beginning of the document.

`odd-document`: Page breaks at odd-numbered pages counting from the beginning of the document.

**Applies to:** [<fo:block>](#), [<fo:block-container>](#), [<fo:list-block>](#), [<fo:list-item>](#), [<fo:table>](#), [<fo:table-and-caption>](#), [<fo:table-row>](#)

**Values:** `auto` | `column` | `page` | `even-page` | `odd-page` | `even-document` | `odd-document`

**Initial:** `auto`

**Inherited:** `no`

See also [axf:break-distance](#)

## caption-side

This property sets the position of a table caption. With the default value `before` or `top` it is placed above the table. With the value `after` or `bottom` it is placed below the table. With the value `left` or `start` it is placed to the left of the table, with the value `right` or `end` it is placed to the right of the table.

**Applies to:** [<fo:table-and-caption>](#)

**Values:** `before` | `after` | `start` | `end` | `top` | `bottom` | `left` | `right`

**Initial:** `before`

**Inherited:** `yes`

case-name (AHF: not supported)

This property sets the name of a `<fo:multi-case>` object (only significant in dynamic uses of the formatted result).

**Applies to:** `<fo:multi-case>`

**Values:** `<name>`

**Initial:** none, a value must be specified.

**Inherited:** no

case-title (AHF: not supported)

This property sets the title of a `<fo:multi-case>` object (only significant in dynamic uses of the formatted result).

**Applies to:** `<fo:multi-case>`

**Values:** `<string>`

**Initial:** none, a value must be specified.

**Inherited:** no

change-bar-class

This property assigns a name to a pair of `<fo:change-bar-begin>` and `<fo:change-bar-end>`, which identifies the named start-end pair if overlapped by other change-bar pairs.

**Applies to:** `<fo:change-bar-begin>`, `<fo:change-bar-end>`

**Values:** `<name>`

**Initial:** none, a value must be specified.

**Inherited:** no

change-bar-color

This property sets the color of the change bar.

**Applies to:** `<fo:change-bar-begin>`

**Values:** `<color>`

**Initial:** the color value in the environment.

**Inherited:** yes

#### change-bar-offset

This property sets the space of the change bar from the text flow. Relative values (percentages or em values) are not allowed for this property.

**Applies to:** <fo:change-bar-begin>

**Values:** <length>

A positive value moves the change bar away from the text flow, no matter how the [change-bar-placement](#) property is set.

**Initial:** 6pt

**Inherited:** yes

#### change-bar-placement

This property sets where – in relation to the text flow – the change bar is located (in the left-right writing direction): left, right, inside or outside. With the alternate value, in a two-column layout, the change bar is found on the left of the first column and on the right of the second column.

**Applies to:** <fo:change-bar-begin>

**Values:** start | end | left | right | inside | outside | alternate

**Initial:** start

**Inherited:** yes

#### change-bar-style

This property sets the line type (solid, dotted, etc.).

**Applies to:** <fo:change-bar-begin>

**Values:** border-style

**Initial:** none

**Inherited:** yes

## change-bar-width

This property sets the width of the change bar. The thin, medium, and thick widths are specified in the formatter products. The `<length>` value is not allowed.

**Applies to:** `<fo:change-bar-begin>`

**Values:** thin | medium | thick | `<length>`

**Initial:** medium

**Inherited:** yes

## character

This property specifies a Unicode character to be inserted.

**Applies to:** `<fo:character>`

**Values:** `<character>`

**Initial:** none, a value must be specified.

**Inherited:** no

## clear

This property specifies the side of a floating block with which it must not connect to a preceding floating block. This property is only important if several floating blocks are to be arranged in relation to each other.

**Applies to:** `<fo:float>`

**Values:** start | end | left | right | both | none

**Initial:** none

**Inherited:** no

## clip

This property sets clipping properties if the given object exceeds the height and/or width of the given area.

**Applies to:** <fo:block-container>, <fo:external-graphic>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>

**Values:** <shape> | auto

**Initial:** auto

**Inherited:** no

## color

This property sets the foreground color of the content.

**Applies to:** <fo:bidirectional-override>, <fo:bookmark-title>, <fo:block>, <fo:character>, <fo:initial-property-set>, <fo:inline>, <fo:leader>, <fo:title>

**Values:** <color>

**Initial:** set by the formatter product.

**Inherited:** yes

## color-profile-name

This property sets the name of an ICC color profile.

**Applies to:** <fo:color-profile>

**Values:** <name>

**Initial:** none, a value must be specified.

**Inherited:** no

## column-count (AHF: extended supported)

This property sets the number of columns in the main page area within a page sequence.

**Applies to:** <fo:region-body>

**Values:** <number>

**Initial:** 1

**Inherited:** no

`column-gap` (AHF: extended supported)

This property sets the spacing between columns in case of multiple columns.

**Applies to:** `<fo:region-body>`

**Values:** `<length>` | `<percentage>`

**Initial:** 12.0pt

**Inherited:** no

`column-number`

This property assigns a sequential number to the columns of a table starting with 1, which can be used to link the specifications in `<fo:table-column>` to the corresponding table cells.

**Applies to:** `<fo:table-cell>`, `<fo:table-column>`

**Values:** `<number>`

**Initial:** 1 plus the value of the preceding column (if there is one).

**Inherited:** no

`column-width`

This property sets the width of a table column. This can be set proportionally to the width of the other columns with the `proportional-column-width()` function, relative to the width of the entire table, and absolutely in the allowed measurement units.

**Applies to:** `<fo:table-column>`

**Values:** `<length>` | `<percentage>`

**Initial:** A value must be specified for each column, unless the automatic table layout (`table-layout` with the default value `auto`) is used.

**Inherited:** no

`content-height`

This property sets the height of an object, e.g. a graphic.

**Applies to:** <fo:external-graphic>, <fo:instream-foreign-object>

**Values:** auto | scale-to-fit | <length> | <percentage>

**Initial:** auto

**Inherited:** no

content-type (AHF: extended supported)

This property specifies the format of a content object (graphic, multimedia object) that instructs the given processing system with which specific processor the object can be processed.

For graphics processed with the AH XSL Formatter, the format does not need to be specified.

For multimedia objects, the AH XSL Formatter detects the following formats:

- audio/\*
- video/\*
- application/x-shockwave-flash.

Other formats can be explicitly specified with <multimedia> in the AHF system settings.

The extent to which a multimedia object is rendered correctly depends on the PDF reader.

Constraints:

- Multimedia objects can be embedded in PDF 1.5 or higher.
- Multimedia objects cannot be embedded as background images.
- Multimedia objects cannot be embedded as posters  
(axf:poster-image).

**Applies to:** <fo:external-graphic>, <fo:instream-foreign-object>

**Values:** <string> | auto

**Initial:** auto

**Inherited:** no

## content-width

This property sets the width of an object, e.g. a graphic. With the default value `auto` the given width of the object is used. With the `scale-to-fit` value, the width of the object is adjusted to the width of the area in which the object is placed. With `<length>` a fixed width is given for the object (scaling is implied). With `<percentage>` a scaling factor is specified.

**Applies to:** `<fo:external-graphic>`, `<fo:instream-foreign-object>`

**Values:** `auto` | `scale-to-fit` | `<length>` | `<percentage>`

**Initial:** `auto`

**Inherited:** `no`

## country

This property specifies a country key according to ISO 3166. This specification is used for country-specific typesetting (line alignment, hyphenation, etc.). For the designation of language-specific hyphenation rules it is better to specify the language property.

**Applies to:** `<fo:block>`, `<fo:character>`, `<fo:page-sequence>`

**Values:** `none` | `<country>`

**Initial:** `none`

**Inherited:** `yes`

## destination-placement-offset (AHF: not supported)

In a dynamic application for a link target this property specifies where to navigate in the page if the link target is not explicitly included in a text line. This navigation replaces the regular navigation to the actual link target (fallback navigation).

**Applies to:** `<fo:basic-link>`

**Values:** `<length>`

**Initial:** `0pt`



**Inherited:** no

direction

This property specifies whether the content should be written from left to right (ltr) or from right to left (rtl). This corrects the writing direction specified in Unicode.

**Applies to:** <fo:bidirectional-override>

**Values:** ltr | rtl

**Initial:** ltr

**Inherited:** yes

display-align (AHF: extended supported)

This property sets the vertical alignment of objects within the reference area. For example, this applies to text within table cells: aligned up (before), aligned to the center (center), or aligned down (after).

The default value auto is normally the same as before, unless the [relative-align](#) property applies to this object.

In the AH XSL Formatter the value justify is added.

**Applies to:** <fo:block-container>, <fo:external-graphic>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table-cell>

**Values:** auto | before | center | after | justify

**Initial:** auto

**Inherited:** yes

dominant-baseline

This property allows baseline shifting for inline objects such as mathematical expressions or ideographic characters. A detailed description of this property and its possible uses is not possible here

for reasons of scope, but it is also irrelevant when using the horizontal writing direction and alphabetic characters.

**Applies to:** <fo:basic-link>, <fo:character>, <fo:external-graphic>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>

**Values:** auto | use-script | no-change | reset-size | ideographic | alphabetic | hanging | mathematical

**Initial:** auto

**Inherited:** no

empty-cells (AHF: not supported)

This property controls the handling of table cells without content in tables where the cells are displayed with their borders each with a space between them. With the hide value empty cells are not displayed, however their background that also appears between adjacent cells.

**Applies to:** <fo:table-cell>

**Values:** show | hide

**Initial:** show

**Inherited:** yes

end-indent

This property sets the space between the right edge of a block and the right edge of the corresponding reference area. The block is thus indented on the right which applies to the writing direction left-right.

**Applies to:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:list-item>, <fo:region-body>, <fo:simple-page-master>, <fo:table>, <fo:table-and-caption>

**Values:** <length>

**Initial:** 0pt

**Inherited:** yes

#### ends-row

If necessary, this property specifies whether the given table cell ends a table row. With the default value false the cell does not end the given table row. With true the table row is ended without a tag in the XML source document.

**Applies to:** <fo:table-cell>

**Values:** true | false

**Initial:** false

**Inherited:** no

#### extent

This property sets the width of a start/end region (for left-right writing direction, this is the area to the left and right of the main area of a page) or the height of a before/after region (the header and footer area).

**Applies to:** <fo:region-after>, <fo:region-before>, <fo:region-end>, <fo:region-start>

**Values:** <length> | <percentage>

**Initial:** 0.0pt

**Inherited:** no

#### external-destination

This property sets the resource target of a <fo:basic-link>, a <fo:bookmark> or a <axf:form> object.

**Applies to:** <fo:basic-link>, <fo:bookmark>, <axf:form>

**Values:** <uri-specification>

**Initial:** empty string

**Inherited:** no

## float

This property sets the floating properties of a block that is not positioned absolutely. With the default value `none` the block does not float, so it is placed in the normal text flow. With the value `before` the block floats into the head of the main page area. The value `left` makes the block float to the left, the value `right` to the right. For left-right writing direction, the start value corresponds to the left value, the end value corresponds to the right value.

The two values `inside` and `outside` are proprietary extensions of the AH XSL formatter: with `inside` the block floats to the left in right pages, to the right in left pages, with `outside` to the right in right pages and to the left in left pages.

**Applies to:** `<fo:float>`

**Values:** `before` | `start` | `end` | `left` | `right` | `inside` | `outside` | `none`

**Initial:** `none`

**Inherited:** no

## flow-map-name

This property is used to set the unique name for a `<fo:flow-map>` object referenced as the value of `flow-map-reference` of a `<fo:page-sequence>` object.

**Applies to:** `<fo:flow-assignment>`, `<fo:flow-map>`

**Values:** `<name>`

**Initial:** `none`, a name must be specified.

**Inherited:** no

## flow-map-reference

This property is used to specify the `<fo:flow-map>` to be used in a page sequence. If no flow-map-reference is set for a page sequence (`<fo:page-sequence>`), the `fo:flow-map` implicitly defined in the standard is effective. Practically, this means that the flow-map-reference property need not be set if no `fo:flow-map` is specified.

**Applies to:** `<fo:page-sequence>`

**Values:** `<name>`

**Initial:** none, a name must be specified.

**Inherited:** no

## flow-name

This property sets the name of a text flow.

**Applies to:** `<fo:flow>`, `<fo:static-content>`

**Values:** `<name>`

**Initial:** empty name

**Inherited:** no

## flow-name-reference

This property is used to specify a text flow (`<fo:flow>`) to be used in a `<fo:flow-source-list>` object.

**Applies to:** `<fo:flow-name-specifier>`

**Values:** `<name>`

**Initial:** none, a name must be specified.

**Inherited:** no

## font

This shorthand property simultaneously specifies the font characteristics of `font-style`, `font-variant`, `font-weight`, `font-size`, `line-height`, and `font-family`. The caption, icon, menu, message-box, small-

caption, and status-bar values specify system fonts in a given computer environment.

**Applies to:** <fo:bidi-override>, <fo:block>, <fo:character>, <fo:initial-property-set>, <fo:inline>, <fo:leader>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:title>

**Values:** [[ font-style || font-variant || font-weight ]? font-size [ line-height ]? font-family ] | caption | icon | menu | message-box | small-caption | status-bar

**Initial:** see the corresponding single properties.

**Inherited:** yes

#### font-family

This property specifies a priority list of font names to be used according to their order. This allows characters to be used that are not included in the first named font, but in a font named next.

**Applies to:** <fo:bidi-override>, <fo:block>, <fo:character>, <fo:initial-property-set>, <fo:inline>, <fo:leader>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:title>, <axf:font-face>

**Values:** [[ <family-name> | <generic-family> ],]\* [ <family-name> | <generic-family> ]

**Initial:** system-dependent

**Inherited:** yes

#### font-selection-strategy

This property specifies the procedure for selecting a font if the specified font is not available and a font as similar as possible should be used instead.

**Applies to:** <fo:bidirectional-override>, <fo:block>, <fo:character>, <fo:initial-property-set>, <fo:inline>, <fo:leader>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:title>

**Values:** auto | character-by-character

**Initial:** auto

**Inherited:** yes

## font-size

This property sets the font size. The actual font size may also be affected by `font-size-adjust` and/or by the unavailability of certain font sizes. The font size can be specified either with an absolute size, or in a relative size with reference to the font size used in the environment.

**Applies to:** <fo:bidirectional-override>, <fo:block>, <fo:character>, <fo:initial-property-set>, <fo:inline>, <fo:leader>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:title>

**Values:** <relative-size> | <absolute-size> | <length> | <percentage>

**Initial:** medium

**Inherited:** yes

## font-size-adjust

This property adjusts the font size. It is used to adjust fonts that appear too large / too small in comparison to the perceived font size of the surrounding font.

In the AH XSL Formatter the value <string> is added.

**Applies to:** <fo:bidirectional-override>, <fo:block>, <fo:character>, <fo:initial-property-set>, <fo:inline>, <fo:leader>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:title>

**Values:** <number> | <string> | none

**Initial:** none

**Inherited:** yes

## font-stretch

This property specifies the choice between a normal-width, a narrower-width, and a wider-width font face. For gradations, see the allowed property values.

The two values `<percentage>` and `<number>` are proprietary extensions to the AH XSL formatter: `<percentage>` specifies the font run width relative to the normal run width, `<number>` does the same without specifying the % sign.

**Applies to:** `<fo:bidirectional-override>`, `<fo:block>`, `<fo:character>`, `<fo:initial-property-set>`, `<fo:inline>`, `<fo:leader>`, `<fo:page-number>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`, `<fo:title>`

**Values:** normal | wider | narrower | ultra-condensed | extra-condensed | condensed | semi-condensed | semi-expanded | expanded | extra-expanded | ultra-expanded | `<percentage>` | `<number>`

**Initial:** normal

**Inherited:** yes

## unicode-range

Specifies the Unicode Range to which this font applies.

**Applies to:** `<axf:font-face>`

**Values:** `<urange>#` | all

**Initial:** all

**Inherited:** no

## size-adjust

Adjusts the size of this font.

Numeric values without units can be specified. 1 is equivalent to 100%.

Negative values are not allowed.

**Applies to:** `<axf:font-face>`



**Values:** normal | [<percentage>](#) | [<number>](#)

**Initial:** normal

**Inherited:** no

font-style (AHF: extended supported)

This property specifies the font style for the slant of a font, normal for straight, italic for italic with its own font face, oblique for right slant based on the straight font face, backslant for left slant based on the straight font face.

**Applies to:** [<fo:bidirectional-override>](#), [<fo:block>](#), [<fo:bookmark-title>](#) (normal oder italic), [<fo:character>](#), [<fo:initial-property-set>](#), [<fo:inline>](#), [<fo:leader>](#), [<fo:page-number>](#), [<fo:page-number-citation>](#), [<fo:page-number-citation-last>](#), [<fo:title>](#)

**Values:** normal | italic | oblique | backslant

**Initial:** normal

**Inherited:** yes

font-variant

This property causes a small cap variant to be displayed instead of the text set with normal upper and lower case letters. Small caps are uppercase letters at the same height as lowercase letters, with proportions adjusted accordingly.

In addition to the values mentioned above, the AH XSL Formatter supports the GSUB (Glyph Substitution) concept to a limited extent in conjunction with OpenType fonts. See details in the Online Manual of the AH XSL Formatter (file: [index.html/ahf-ext.html#axf.font-variant](#)).

**Applies to:** [<fo:bidirectional-override>](#), [<fo:block>](#), [<fo:character>](#), [<fo:initial-property-set>](#), [<fo:inline>](#), [<fo:leader>](#), [<fo:page-number>](#), [<fo:page-number-citation>](#), [<fo:page-number-citation-last>](#), [<fo:title>](#)

**Values:** normal | small-caps

**Initial:** normal

**Inherited:** yes

font-weight

This property sets the boldness level of a font. normal corresponds to the numeric value 400, bold to the value 700, bolder to the value 900, lighter to the value 100.

**Applies to:** <fo:bid-override>, <fo:block>, <fo:bookmark-title> (normal oder bold), <fo:character>, <fo:initial-property-set>, <fo:inline>, <fo:leader>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:title>

**Values:** normal | bold | bolder | lighter | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900

**Initial:** normal

**Inherited:** yes

force-page-count (AHF: extended supported)

This property specifies for a page sequence whether and how pages with an odd/even page number should be generated. With auto an odd number of pages is generated for a page sequence which is followed by another page sequence that should start with an even page number. If the subsequent page sequence is to start with an odd page number, the preceding page sequence will end with an even page number. If there is no subsequent page sequence, as many pages are generated as are needed for the content (equivalent to the no-force value). With even an even number of pages is generated, with odd an odd number of pages. With end-on-even the last page is one with an even page number, with end-on-odd a last page with an odd page number.

In the AH XSL Formatter further values are added for the flexible definition of page counts. See details at and in the Online Manual of the AH XSL Formatter (file: <index.html/ahf-ext.html#force-page-count>).

**Applies to:** [<fo:page-sequence>](#)

**Values:** auto | even | odd | end-on-even | end-on-odd | no-force

AHF-Erweiterungen: doubly-even | end-on-doubly-even | even-document | odd-document |

doubly-even-document | [ end-on | document ] [<number>](#) [ [<number>](#) ]

**Initial:** auto

**Inherited:** no

format (AHF: extended supported)

This property is defined in XSLT. It concerns number to string conversion for page number format. Example: `format="i"` displays the page numbers as small Roman numerals.

More values for formatting counters are added in the AH XSL Formatter. See details in the Online Manual of the AH XSL Formatter (file: <index.html/ahf-ext.html#format>).

Instead of the counter styles described there, the concept of predefined counter styles can also be used. These counter styles are listed completely under the counter style names ([name](#)).

**Applies to:** [<fo:page-sequence>](#), [<fo:scaling-value-citation>](#)

**Values:** [<string>](#)

**Initial:** 1

**Inherited:** no

glyph-orientation-horizontal

This property sets the orientation of characters in horizontal writing mode. It can only be rotated in 90° increments. For example, a 180deg

value turns a character upside down. If a string is marked like this, the order of the characters remains unchanged.

**Applies to:** <fo:character>

**Values:** <angle>

**Initial:** 0deg

**Inherited:** yes

#### glyph-orientation-vertical

This property sets the orientation of characters in vertical writing mode (running from top to bottom or bottom to top).

**Applies to:** <fo:character>

**Values:** <angle>

**Initial:** auto

**Inherited:** yes

#### grouping-separator

This property is defined in XSLT. It concerns number to string conversion for the format of numeric expressions. Example: grouping-separator=", ". The application is only useful in conjunction with grouping-size. It can also be used in FO for formatting page numbers.

**Applies to:** <fo:page-sequence>, <fo:scaling-value-citation>

**Values:** <character>

**Initial:** no separator

**Inherited:** no

#### grouping-size

This property is defined in XSLT. It concerns number to string conversion for the format of numeric expressions. Example: grouping-size="3". If grouping-separator=", " is set, the number '50001' will be

displayed as '50,001', the number '2000001' as '2,000,001'. It can also be used in FO for formatting page numbers.

**Applies to:** <fo:page-sequence>, <fo:scaling-value-citation>

**Values:** <number>

**Initial:** no grouping

**Inherited:** no

## height

This property sets the height of blocks. If the height is specified as a relative value (<percentage>), this value refers to the height of the surrounding block. If the height of the surrounding block is not explicitly defined, then this relative value corresponds to the default auto value, i.e. the height is set by other specifications.

**Applies to:** <fo:block-container>, <fo:external-graphic>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:table>, <fo:table-caption>, <fo:table-cell>, <fo:table-row>

**Values:** <length> | <percentage> | auto

**Initial:** auto

**Inherited:** no

## hyphenate

This property decides the hyphenation for line breaks. With true hyphenation is generally activated.

**Applies to:** <fo:block>, <fo:character>, <fo:inline>

**Values:** true | false

**Initial:** false

**Inherited:** yes

## hyphenation-character

This property specifies the Unicode character to be used as hyphen.

**Applies to:** <fo:block>, <fo:character>

**Values:** <character>

**Initial:** Unicode character U+002D (the common hyphen)

**Inherited:** yes

#### hyphenation-keep

This property controls hyphenation in the last line of a column or page. The default value auto sets no constraints on hyphenation. column avoids hyphenation in the last line of a column, page one in the last line of a page.

**Applies to:** <fo:block>

**Values:** auto | column | page

**Initial:** auto

**Inherited:** yes

#### hyphenation-ladder-count

This property sets the maximum number of consecutive hyphenated lines. Thus, with a value of 3, a maximum of three consecutive hyphenated lines will be generated. With the default value no-limit the number of consecutive hyphenations is not limited.

**Applies to:** <fo:block>

**Values:** no-limit | <number>

**Initial:** no-limit

**Inherited:** yes

#### hyphenation-push-character-count

This property sets the minimum number of characters in a hyphenated word after the hyphen. In the AH XSL Formatter this value can be set in the Hyphenation Exception Dictionary. If in element <hyphen-min> a value for after is set, this value applies, otherwise 2.

**Applies to:** <fo:block>, <fo:character>

**Values:** <number> | auto

**Initial:** if in the AHF Hyphenation Exception Dictionary in element <hyphen-min> a value for after is set, this value applies, otherwise 2.

**Inherited:** yes

#### hyphenation-remain-character-count

This property sets the minimum number of characters in a hyphenated word before the hyphen. In the AH XSL Formatter this value can be set in the Hyphenation Exception Dictionary. If in element <hyphen-min> a value for before is set, this value applies, otherwise 2.

**Applies to:** <fo:block>, <fo:character>

**Values:** <number>

**Initial:** if in the AHF Hyphenation Exception Dictionary in element <hyphen-min> a value for before is set, this value applies, otherwise 2.

**Inherited:** yes

#### id

This property specifies the identifier that is unique among all objects in a result tree (XML FO document). The object so named can be referenced by other objects. Such an identifier can be generated with the generate-id() function in the XSLT process. In <fo:index-range-begin> the value of id indicates the beginning of an index range, which ends at the position of <fo:index-range-end> with the value of the same name in ref-id.

**Applies to:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:index-range-begin>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:list-item-body>,

`<fo:list-item-label>`, `<fo:multi-case>`, `<fo:multi-properties>`  
`<fo:multi-property-set>`, `<fo:multi-switch>`, `<fo:multi-toggle>`,  
`<fo:page-number>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`,  
`<fo:page-sequence>`, `<fo:page-sequence-wrapper>`, `<fo:table>`,  
`<fo:table-and-caption>`, `<fo:table-body>`, `<fo:table-caption>`,  
`<fo:table-cell>`, `<fo:table-footer>`, `<fo:table-header>`, `<fo:table-row>`,  
`<fo:wrapper>`

**Values:** `<id>`

**Initial:** none

**Inherited:** no

### index-class

This property assigns an index class to a formatting object for which an index key (`index-key`) is also set. Such index class values are responsible for the assignment of page numbers to page number ranges. Page numbers of different index classes are assigned to different page number ranges. So, for example, if the preface and the subsequent chapter are in one page number range and the referenced page numbers are continuous from page 'vi' of the preface to page '4' of the first chapter, then the page number range will be represented as 'vi-4'. If the preface and the following chapter are in different index classes, then 'vi-xx, 1-4' will be displayed.

**Applies to:** `<fo:index-range-begin>`, `<fo:page-sequence>`,  
`<fo:page-sequence-wrapper>`

**Values:** `<string>`

**Initial:** empty string

**Inherited:** no



## index-key

This property is used to assign an index key to a formatting object. All index keys with the same value identify an index term for which a list of page number references can be generated.

**Applies to:** `<fo:index-range-begin>`, `<fo:page-sequence>`,  
`<fo:page-sequence-wrapper>`

**Values:** `<string>`

**Initial:** none

**Inherited:** no

## indicate-destination (AHF: not supported)

In an interactive application, this property specifies whether the target of the link should be displayed or not.

**Applies to:** `<fo:basic-link>`

**Values:** true | false

**Initial:** false

**Inherited:** no

## initial-page-number

This property sets the starting page number for a page sequence. With auto the page count will start with 1 if this page sequence is not preceded by another one. For auto-odd, a 1 is added to the last page number of the preceding page sequence, if necessary, to allow the given page sequence to start with an odd page number. For auto-even, the same applies for starting with an even page number. For `<number>` it is possible to start with any page number.

auto-odd-if-only: a page-sequence with only one page behaves like auto-odd. Otherwise it is considered auto.

**Applies to:** `<fo:page-sequence>`

**Values:** auto | auto-odd | auto-even | `<number>` | auto-odd-if-only

**Initial:** auto

**Inherited:** no

#### inline-progression-dimension

This property specifies for the typeset, possibly deviating from the normal behavior of the formatter, how wide – in writing direction – it should set the box for the content. With the default value auto no deviation from the normal behavior of the formatter is caused. With a fixed value (`<length>`) the specified width is set. For content that takes less than this width, a blank space is created in the writing direction (right). If the content takes more than this width, the content following in the line starts at the right end of the rectangle (overlapping the content, if necessary!). With a relative value (`<percentage>`) the width is set in relation to the direct parent object with an explicit width. With a width range (`<length-range>`) the width can be set within certain limits depending on the content.

An example:

```
inline-progression-dimension.minimum="20mm"
```

```
inline-progression-dimension.optimum="25mm"
```

```
inline-progression-dimension.maximum="30mm".
```

**Applies to:** `<fo:block-container>`, `<fo:external-graphic>`, `<fo:inline>`, `<fo:inline-container>`, `<fo:instream-foreign-object>`, `<fo:table>`, `<fo:table-caption>`, `<fo:table-cell>`

**Values:** auto | `<length>` | `<percentage>` | `<length-range>`

**Initial:** auto

**Inherited:** no

#### internal-destination (AHF: extended supported)

This property sets the document internal `<fo:basic-link>` or `<fo:bookmark>` target object.

The AH XSL Formatter adds the `<number-with-fragment>` and `<named-action>` values which can be used to set the behavior of a PDF link more precisely. For more details see the AH XSL Formatter Online Manual (file: index.html/ahf-ext.html/#axf.internal-destination).

**Applies to:** `<fo:basic-link>`, `<fo:bookmark>`

**Values:** empty-string | `<id-ref>` | `<number-with-fragment>` | `<named-action>`

**Initial:** empty string

**Inherited:** no

#### intrinsic-scale-value

This assigns a general scaling factor to graphics relative to their original size.

**Applies to:** `<fo:scaling-value-citation>`

**Values:** `<percentage>`

**Initial:** 100%

**Inherited:** yes

#### intrusion-displace

For embedding a float object in a block, this property specifies the space it clears for the embedding. For the line value, just as many lines of the block are indented for the embedding as required by the embedded object. With block, the entire block is indented according to the width of the embedded object. The space below the object that is not needed remains free.

**Applies to:** `<fo:block>`, `<fo:block-container>`, `<fo:list-block>`, `<fo:list-item>`, `<fo:table>`, `<fo:table-and-caption>`, `<fo:table-caption>`

**Values:** auto | none | line | indent | block

**Initial:** auto

**Inherited:** yes

## keep-together

This property specifies the extent to which the object in question should be kept together (not wrapped). Note the three components of this property: `.within-line`, `.within-column` and `.within-page`. With the auto value, no constraints are placed on wrapping, and with always the object is never broken. With an integer value, e.g. 1, it is weighed whether this value is against a higher numerical value to keep the given objects together.

**Applies to:** `<fo:basic-link>`, `<fo:block>`, `<fo:block-container>`, `<fo:inline>`, `<fo:inline-container>`, `<fo:list-block>`, `<fo:list-item>`, `<fo:list-item-body>`, `<fo:list-item-label>`, `<fo:table>`, `<fo:table-and-caption>`, `<fo:table-caption>`, `<fo:table-row>`

**Values:** `<keep>`

**Values for the components:** auto | always | `<integer>`

**Initial:** `keep-together.within-line="auto"`, `keep-together.within-column="auto"`, `keep-together.within-page="auto"`

**Inherited:** yes

## keep-with-next

This property specifies the extent to which the object in question should be kept together with the object immediately following it. Note the three components of this property: `.within-line`, `.within-column`, and `.within-page`. With the component value auto no constraints are set for wrapping, with always wrapping is never done between the two objects. With an integer value, e.g. 3, it is weighed whether this value is against a higher numerical value to keep the given object with the next one.

**Applies to:** `<fo:basic-link>`, `<fo:block>`, `<fo:block-container>`, `<fo:character>`, `<fo:external-graphic>`, `<fo:inline>`, `<fo:inline-container>`, `<fo:instream-foreign-object>`, `<fo:leader>`, `<fo:list-block>`, `<fo:list-item>`,

<fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:table>, <fo:table-and-caption>, <fo:table-row>

**Values:** <keep>

**Values for the components:** auto | always | <integer>

**Initial:** keep-with-next.within-line="auto", keep-with-next.within-column="auto", keep-with-next.within-page="auto"

**Inherited:** no

#### keep-with-previous

This property specifies to what extent the object in question should be kept together with the immediately preceding object. The further explanations for [keep-with-next](#) apply analogously.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:table>, <fo:table-and-caption>, <fo:table-row>

**Values:** <keep>

**Values for the components:** auto | always | <integer>

**Initial:** keep-with-previous.within-line="auto", keep-with-previous.within-column="auto", keep-with-previous.within-page="auto"

**Inherited:** no

#### language

Indicates the language according to whose rules line formation, line breaks and hyphenation are to take place. The value for <language> is a language key according to ISO 639, for example fr for French.

**Applies to:** <fo:block>, <fo:character>, <fo:page-sequence>, <axf:hyphenation-info>, <axf:space-after-punctuation>,

`<axf:space-before-punctuation>`, `<axf:space-between-digit-and-punctuation>`,  
`<axf:space-between-punctuation-and-digit>`

**Values:** none | `<language>`

**Initial:** none

**Inherited:** yes

#### last-line-end-indent

This property specifies to what extent the last line of a block is to be indented on the right (for left-right writing direction). Exceeding text in the last line is wrapped, if necessary and thus forms another line.

**Applies to:** `<fo:block>`

**Values:** `<length>` | `<percentage>`

**Initial:** 0pt

**Inherited:** yes

#### leader-alignment (AHF: extended supported)

This property specifies the alignment of leader-pattern fill characters. If the `leader-pattern` property is set to dots, then the fill characters are not typeset justified, but are aligned to the left with the value start, with center to the center, and with end to the right.

**Applies to:** `<fo:leader>`

**Values:** none | reference-area | page | start | center | end

**Initial:** none

**Inherited:** yes

#### leader-length

This property specifies the length of a leader line. The `.minimum`, `.optimum` and `.maximum` components can be used to set a length range. If these components are not used, a fixed length is set.

**Applies to:** `<fo:leader>`

**Values:** <length-range>

**Values for the components:** <length>

**Initial:** leader-length.minimum="0pt", leader-length.optimum="12.0"pt,  
leader-length.maximum="100%"

**Inherited:** yes

#### leader-pattern

This property specifies the fill character pattern of a leader line. With the space, rule and dots values the <fo:leader> object has no content. The use-content value sets as pattern the content of the fo:leader object.

**Applies to:** <fo:leader>

**Values:** space | rule | dots | use-content

**Initial:** space

**Inherited:** yes

#### leader-pattern-width

This property specifies the width of the fill pattern of a leader line. If necessary, the pattern will be letter spaced. With the use-font-metrics value the characters of the pattern are set according to their font metrics.

**Applies to:** <fo:leader>

**Values:** use-font-metrics | <length>

**Initial:** use-font-metrics

**Inherited:** yes

#### left

This property specifies the left border for positioned objects (block containers) within the block or area containing the object.

**Applies to:** positioned objects, especially <fo:block-container>

**Values:** <length> | <percentage> | auto

**Initial:** auto  
**Inherited:** no

#### letter-spacing

This property specifies to what extent characters should be spaced beyond the font-given, normal character spacing. With a fixed value (`<length>`) a constant character spacing is specified. The `<space>` value can be used to specify more complex character spacing adjustments.

**Applies to:** `<fo:block>`, `<fo:inline>`, `<fo:character>`

**Values:** normal | `<length>` | `<space>`

**Initial:** normal

**Inherited:** yes

#### letter-value (AHF: partially supported)

This property is defined in XSLT. Concerns number-to-string conversion and has no meaning in languages based on the Latin alphabet.

**Applies to:** `<fo:page-sequence>`, `<fo:scaling-value-citation>`

**Values:** auto | alphabetical | traditional

**Initial:** auto

**Inherited:** no

#### linefeed-treatment

This property specifies the handling of the Unicode character U+000A (linefeed). With the ignore value, this character is ignored in processing. With the preserve value, the linefeed character in the XML source text is converted to a carriage return (line break) during typesetting. With the default value treat-as-space, the linefeed character is interpreted as a space. With the treat-as-zero-width-space value, the linefeed character is translated to the Unicode character U+000B (zero-width space).



**Applies to:** <fo:block>

**Values:** ignore | preserve | treat-as-space | treat-as-zero-width-space

**Initial:** treat-as-space

**Inherited:** yes

## line-height

This property specifies the height of a text line. For block objects this means the minimum line height, for inline objects the exact line height. The default for the normal value assumes the given font size is specified in the formatter presettings, and typically ranges between a factor value of 1.0 to 1.2. This factor value can also be specified by the <number> value. With <length> an arbitrary value can be set in a valid unit of measurement. With <space> the line height can be specified in terms of minimum, maximum and optimum height. Additionally, the conditionality and precedence can be set. For this purpose, the following components are added to the value name: .minimum, .maximum, .optimum, .conditionality and .precedence.

**Applies to:** <fo:basic-link>, <fo:bidirectional-override>, <fo:block>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:title>

**Values:** normal | <length> | <number> | <percentage> | <space>

**Initial:** normal

**Inherited:** yes

## line-height-shift-adjustment

This property specifies whether or not to adjust the line height for content with baseline-shift. An example of usage: with the default value consider-shifts, the line height is extended by superscript

or subscript characters (exponents or indexes, respectively). With disregard-shifts the given line height remains unaffected. However, these characters can then extend into the preceding or following line.

**Applies to:** <fo:block>

**Values:** consider-shifts | disregard-shifts

**Initial:** consider-shifts

**Inherited:** yes

#### line-stacking-strategy

This property specifies the strategy for lining up the lines in the typeset. An XSL formatter must support at least the max-height and font-height values. It can interpret line-height as max-height. When setting line-height in the AH XSL Formatter, all lines are set according to the setting of the [line-height](#) property.

**Applies to:** <fo:block>

**Values:** line-height | font-height | max-height

**Initial:** max-height

**Inherited:** yes

#### margin

This shorthand property simultaneously specifies the properties of [margin-top](#), [margin-right](#), [margin-bottom](#), and [margin-left](#). If only one value is given for the margins, then it applies to all four sides. If two values are given, then the first applies to the top and bottom margins, and the second applies to the right and left. If three values are given, the first applies to the top, the second to the left and right, and the third to the bottom. For four values, they are used in the given order for top, right, bottom, and left. For the use of this property, see also the notes at [margin-top](#) or [margin-bottom](#).

**Applies to:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:list-item>, <fo:region-body>, <fo:simple-page-master>, <fo:table>, <fo:table-and-caption>

**Values:** <margin-width> {1,4}

**Initial:** none

**Inherited:** no

#### margin-bottom

This property specifies the bottom margin of a block. For `margin-width` any value can be set in a valid unit of measurement. Negative values are allowed. However, there may be constraints in an XSL formatter that exclude the use of these negative values.

This property has been adopted in XSL-FO only for the sake of compatibility with CSS2. Instead of `margin-bottom`, better use `space-after` because the latter is easier to control in nesting blocks. Within the objects <fo:simple-page-master> and <fo:region-\*> the usage is unproblematic.

**Applies to:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:list-item>, <fo:region-body>, <fo:simple-page-master>, <fo:table>, <fo:table-and-caption>

**Values:** <margin-width>

**Initial:** 0pt

**Inherited:** no

#### margin-end

This property specifies the right margin of a block (for left-right writing direction). For <code>margin-width</code> any value can be set in a valid unit of measurement. Negative values are allowed. However, there may be restrictions in an XSL formatter that excludes the use of these negative values.

**Applies to:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:list-item>, <fo:region-body>, <fo:simple-page-master>, <fo:table>, <fo:table-and-caption>

**Values:** <margin-width>

**Initial:** 0pt

**Inherited:** no

#### margin-left

This property specifies the left margin of a block. For <margin-width> any value can be set in a valid unit of measurement. Negative values are allowed. However, there may be restrictions in an XSL formatter that excludes the use of these negative values.

**Applies to:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:list-item>, <fo:region-body>, <fo:simple-page-master>, <fo:table>, <fo:table-and-caption>

**Values:** <margin-width>

**Initial:** 0pt

**Inherited:** no

#### margin-right

This property specifies the right margin of a block. For <margin-width> any value can be set in a valid unit of measurement. Negative values are allowed. However, there may be restrictions in an XSL formatter that excludes the use of these negative values.

**Applies to:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:list-item>, <fo:region-body>, <fo:simple-page-master>, <fo:table>, <fo:table-and-caption>

**Values:** <margin-width>

**Initial:** 0pt

**Inherited:** no

## margin-start

This property specifies the left margin of a block (for left-right writing direction). For `<margin-width>` any value can be set in a valid unit of measurement. Negative values are allowed. However, there may be restrictions in an XSL formatter that excludes the use of these negative values.

**Applies to:** `<fo:block>`, `<fo:block-container>`, `<fo:list-block>`, `<fo:list-item>`, `<fo:region-body>`, `<fo:simple-page-master>`, `<fo:table>`, `<fo:table-and-caption>`

**Values:** `<margin-width>`

**Initial:** 0pt

**Inherited:** no

## margin-top

This property specifies the top margin of a block. For `margin-width` any value can be set in a valid unit of measurement. Negative values are allowed. However, there may be constraints in an XSL formatter that exclude the use of these negative values.

This property has been adopted in XSL-FO only for the sake of compatibility with CSS2. Instead of `margin-top`, better use `space-before` because the latter is easier to control in nesting blocks. Within the objects `<fo:simple-page-master>` and `<fo:region-*>` the usage is unproblematic.

**Applies to:** `<fo:block>`, `<fo:block-container>`, `<fo:list-block>`, `<fo:list-item>`, `<fo:region-body>`, `<fo:simple-page-master>`, `<fo:table>`, `<fo:table-and-caption>`

**Values:** `<margin-width>`

**Initial:** 0pt

**Inherited:** no

### marker-class-name

This property specifies the unique identifier of `<fo:marker>` objects that can be retrieved by `<fo:retrieve-marker>` objects and have identical values as the `retrieve-class-name` property.

**Applies to:** `<fo:marker>`

**Values:** `<name>`

**Initial:** empty name

**Inherited:** no

### master-name

This property specifies the unique identifier of page templates and page sequence templates. This allows the `master-reference` property to be used to reference the page templates and page sequence templates in the page sequence specifications.

**Applies to:** `<fo:page-sequence-master>`, `<fo:simple-page-master>`

**Values:** `<name>`

**Initial:** empty name

**Inherited:** no

### master-reference

This property is used to reference page templates in page sequence templates as well as page templates and page sequence templates in page sequences. The `<name>` value here is the identical value of the `master-name` property of page templates or page sequence templates.

**Applies to:** `<fo:conditional-page-master-reference>`, `<fo:page-sequence>`, `<fo:repeatable-page-master-reference>`, `<fo:single-page-master-reference>`

**Values:** `<name>`

**Initial:** empty name

**Inherited:** no

## max-height

This property allows to specify the maximum height of a box. The `<length>` value may be any positive value in a valid unit of measurement.

**Applies to:** all formatting objects, but not for table objects

**Values:** `<length>` | `<percentage>` | none

**Initial:** 0pt

**Inherited:** no

## max-width

This property allows to specify the maximum width of a box. The `<length>` value may be any positive value in a valid unit of measurement. With the default value none the width is not limited.

**Applies to:** all formatting objects, but not for table objects

**Values:** `<length>` | `<percentage>` | none

**Initial:** none

**Inherited:** no

## maximum-repeats

This property specifies the maximum number of pages to be created within a `<fo:page-sequence>` object. According to the default no-limit value, the number of pages is not limited. To note: The formatter will not abort formatting if the maximum value is reached, but it will issue an appropriate warning.

**Applies to:** `<fo:repeatable-page-master-alternatives>`,  
`<fo:repeatable-page-master-reference>`

**Values:** `<number>` | no-limit

**Initial:** no-limit

**Inherited:** no

media-usage (AHF: not supported)

This property controls page output in a medium with unspecified page dimensions. With the `paginate` value a sequence of pages is output. With `bounded-in-one-dimension` the entire content of a page sequence is written to a page. Either the page height or the page width must be specified in the first-used page template. The `unbounded` value also writes the entire contents of a page sequence to a page. Specifying page height or page width here will be treated as an error by the formatter. Page height and width are thus set by the output medium. With the default value `auto` the formatter sets how the page output should look like. Typically, this value is identical to the `paginate` value.

**Applies to:** `<fo:root>`

**Values:** `auto` | `paginate` | `bounded-in-one-dimension` | `unbounded`

**Initial:** `auto`

**Inherited:** `no`

merge-pages-across-index-key-references

This property is used to set whether references to an index term that occur multiple times on a page should appear separately in the index or be merged into a single page number reference. With the default value `merge` the references are merged. If this is not wanted, this property must be specified with the `leave-separate` value.

**Applies to:** `<fo:index-page-citation-list>`

**Values:** `merge` | `leave-separate`

**Initial:** `merge`

**Inherited:** `yes`

merge-ranges-across-index-key-references

This property sets whether consecutive page number references to an index term should appear in the index in individual page number



ranges or be merged. With the default value `merge` the references are merged. If this is not desired, this property must be specified with the `leave-separate` value.

**Applies to:** `<fo:index-page-citation-list>`

**Values:** `merge` | `leave-separate`

**Initial:** `merge`

**Inherited:** `yes`

`merge-sequential-page-numbers` (AHF: extended supported)

This property sets whether consecutive page number references should be merged. With the default value `merge`, page numbers are merged if the consecutive page numbers are greater than or equal to 3. This case is seen as `axf:suppress-duplicate-page-number="true"`. The separator can be changed by `<fo:index-page-citation-range-separator>`.

The `merge-f` value merges two consecutive page numbers and appends the suffix specified by `axf:index-page-citation-range-f-suffix`. It applies the `merge` value to three or more consecutive page numbers.

The `merge-ff` value merges three consecutive page numbers and appends the suffix specified by `axf:index-page-citation-range-ff-suffix`. It applies the `merge` value to four or more consecutive page numbers.

**Applies to:** `<fo:index-page-citation-list>`

**Values:** `merge` | `merge-f` | `merge-ff`

**Initial:** `merge`

**Inherited:** `yes`

`min-height`

This property allows to specify the minimum height of a box.

The `<length>` value may be any positive value in a valid unit of measurement.

**Applies to:** all formatting objects, but not for table objects

**Values:** <length> | <percentage>

**Initial:** 0pt

**Inherited:** no

#### min-width

This property allows to specify the minimum width of a box.

The <length> value may be any positive value in a valid unit of measurement.

**Applies to:** all formatting objects, but not for table objects

**Values:** <length> | <percentage>

**Initial:** none

**Inherited:** no

#### number-columns-repeated

This property specifies how often the column specification of <fo:table-column> should be applied repeatedly.

**Applies to:** <fo:table-column>

**Values:** <number>

**Initial:** 1

**Inherited:** no

#### number-columns-spanned

This property specifies the number of columns to be spanned by a table cell. Note the scope: for cells (<fo:table-cell>) the property applies to the given cell within a table row, for columns (<fo:table-column>) it applies to columns.

**Applies to:** <fo:table-cell>, <fo:table-column>

**Values:** <number>

**Initial:** 1

**Inherited:** no

### number-rows-spanned

This property specifies the number of rows to be spanned by a table cell.

**Applies to:** [<fo:table-cell>](#)

**Values:** [<number>](#)

**Initial:** 1

**Inherited:** no

### odd-or-even (AHF: extended supported)

This property sets to what extent the referenced page template ([<fo:simple-page-master>](#)) should be used at this point in the page sequence. The odd value selects the page template if the given page within the page sequence has an odd page number (is a right page), the even value if the page is a left page. With any the page template is applied regardless of whether the given page is a right or left page. The odd-document and even-document values are extensions of the AH XSL formatter. If odd-document is selected, the page template will be assigned to a document starting with an odd page number, with even-document to a document starting with an even page number.

**Applies to:** [<fo:conditional-page-master-reference>](#)

**Values:** odd | even | odd-document | even-document | any

**Initial:** any

**Inherited:** no

### orphans

This property specifies the minimum number of lines of a block before breaking the block to a new column or page. The default value 2 keeps at least two lines of a paragraph together at the end of the column or page.

**Applies to:** [<fo:block>](#)

**Values:** <integer>

**Initial:** 2

**Inherited:** yes

overflow (AHF: extended supported)

This property specifies whether the content of a block object is truncated or not in case of overhang (content that does not fit into the box specified in its dimensions). With the value `visible` the content is not truncated, it goes beyond the given box. With `hidden` the content is truncated, without scroll mechanism. With `scroll` the content can be scrolled within the given box (system-dependent, irrelevant in print output and with the AH XSL Formatter). At `error-if-overflow` an error message is generated by the formatter. For `hidden` the content is truncated. The default value `auto` is handled by the system. For the objects `<fo:block-container>` and `<fo:inline-container>` Antenna House has extended the range of values in the XSL Formatter by two values. The `replace` value replaces the content of the container in the overflow situation with the content contained in `axf:overflow-replace`. This repeats the content until the container is filled with the replacement content. The `condense` value is used to force the contents of the container into the container dimensions, as is set with `axf:overflow-condense`.

**Applies to:** `<fo:block-container>`, `<fo:external-graphic>`,  
`<fo:inline-container>`, `<fo:instream-foreign-object>`, `<fo:region-after>`,  
`<fo:region-before>`, `<fo:region-body>`, `<fo:region-end>`, `<fo:region-start>`

**Values:** `visible` | `hidden` | `scroll` | `error-if-overflow` | `auto` | `replace` |  
`condense`

**Initial:** `auto`

**Inherited:** no

## padding

This is the shorthand property for the inner spacing of a box.

This property simultaneously specifies the properties of [padding-top](#), [padding-left](#), [padding-bottom](#) and [padding-right](#). If only one value is given for the spacing, then it applies to all four sides. If two values are given, then the first applies to the top and bottom spacing, and the second applies to the right and left. If three values are given, the first applies to the top, the second to the left and right, and the third to the bottom. If four values are given, they are used in their given order for top, right, bottom and left.

**Applies to:** [<fo:basic-link>](#), [<fo:block>](#), [<fo:block-container>](#), [<fo:character>](#), [<fo:external-graphic>](#), [<fo:initial-property-set>](#), [<fo:inline>](#), [<fo:inline-container>](#), [<fo:instream-foreign-object>](#), [<fo:leader>](#), [<fo:list-block>](#), [<fo:list-item>](#), [<fo:page-number>](#), [<fo:page-number-citation>](#), [<fo:page-number-citation-last>](#), [<fo:region-after>](#), [<fo:region-before>](#), [<fo:region-body>](#), [<fo:region-end>](#), [<fo:region-start>](#), [<fo:table>](#), [<fo:table-and-caption>](#), [<fo:table-body>](#), [<fo:table-caption>](#), [<fo:table-cell>](#), [<fo:table-column>](#), [<fo:table-footer>](#), [<fo:table-header>](#), [<fo:table-row>](#), [<fo:title>](#)

**Values:** [<padding-width>](#) {1,4}

**Initial:** see the corresponding single properties.

**Inherited:** no

## padding-after

This property specifies the internal spacing at the after border of a box. For left-right writing direction, this is the bottom border.

**Applies to:** [<fo:basic-link>](#), [<fo:block>](#), [<fo:block-container>](#), [<fo:character>](#), [<fo:external-graphic>](#), [<fo:initial-property-set>](#), [<fo:inline>](#), [<fo:inline-container>](#), [<fo:instream-foreign-object>](#), [<fo:leader>](#), [<fo:list-block>](#), [<fo:list-item>](#), [<fo:page-number>](#),

<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <padding-width> | <length-conditional>

**Initial:** 0pt

**Inherited:** no

#### padding-before

This property specifies the internal spacing at the before border of a box. For left-right writing direction, this is the top border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,  
<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>,  
<fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>,  
<fo:page-number-citation>, <fo:page-number-citation-last>,  
<fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>,  
<fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>,  
<fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>,  
<fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <padding-width> | <length-conditional>

**Initial:** 0pt

**Inherited:** no

#### padding-bottom

This property specifies the internal spacing at the bottom border of a box.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>,  
<fo:character>, <fo:external-graphic>, <fo:initial-property-set>,

<fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <padding-width>

**Initial:** 0pt

**Inherited:** no

### padding-end

This property specifies the internal spacing at the end border of a box. For left-right writing direction, this is the right border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <padding-width> | <length-conditional>

**Initial:** 0pt

**Inherited:** no

### padding-left

This property specifies the inner spacing at the left border of a box.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <padding-width>

**Initial:** 0pt

**Inherited:** no

#### padding-right

This property specifies the inner spacing at the right border of a box.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <padding-width>

**Initial:** 0pt

**Inherited:** no



## padding-start

This property specifies the internal spacing at the start border of a box. For left-right writing direction, this is the left border.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <padding-width> | <length-conditional>

**Initial:** 0pt

**Inherited:** no

## padding-top

This property specifies the internal spacing at the top border of a box.

**Applies to:** <fo:basic-link>, <fo:block>, <fo:block-container>, <fo:character>, <fo:external-graphic>, <fo:initial-property-set>, <fo:inline>, <fo:inline-container>, <fo:instream-foreign-object>, <fo:leader>, <fo:list-block>, <fo:list-item>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>, <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>, <fo:table>, <fo:table-and-caption>, <fo:table-body>, <fo:table-caption>, <fo:table-cell>, <fo:table-column>, <fo:table-footer>, <fo:table-header>, <fo:table-row>, <fo:title>

**Values:** <padding-width>

**Initial:** 0pt

**Inherited:** no

## page-break-after

This property specifies whether or not a page break should occur after the given block. A potential page break is typically also affected by the [page-break-inside](#) property of the parent object, the [page-break-after](#) of the preceding block, and the [page-break-before](#) of the following block. If these properties have a value other than auto, the always, left, and right values take precedence over avoid. With the auto value, a page break is neither forced nor forbidden. With always a page break is forced after the given block. With avoid a page break is avoided. With left a page break to a left page (with even page number) is forced (if necessary an empty right page is generated before). With right the page break to a right page (with an odd page number) is forced.

**Applies to:** [<fo:block>](#), [<fo:block-container>](#), [<fo:list-block>](#), [<fo:table-row>](#)

**Values:** auto | always | avoid | left | right

**Initial:** auto

**Inherited:** no

## page-break-before

This property specifies whether or not a page break should occur before the given block. A potential page break is typically also affected by the [page-break-inside](#) property of the parent object, the [page-break-after](#) of the preceding block, and the [page-break-before](#) of the following block. If these properties have a value other than auto, the always, left, and right values take precedence over avoid. With the auto value, a page break is neither forced nor forbidden. With always a page break is forced before the given block. With avoid a page break is avoided. With left a page break to a left page (with even page number) is forced (if necessary an empty right page is generated before). With

right the page break to a right page (with an odd page number) is forced.

**Applies to:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:table-row>

**Values:** auto | always | avoid | left | right

**Initial:** auto

**Inherited:** no

#### page-break-inside

This property specifies whether or not a page break should occur within the given block. A potential page break is typically also affected by the [page-break-inside](#) property of the parent object, the [page-break-after](#) of the preceding block, and the [page-break-before](#) of the following block. If these properties have a value other than auto, the always, left, and right values take precedence over avoid. With the auto value, a page break is neither forced nor forbidden. With avoid a page break is avoided.

**Applies to:** <fo:block>, <fo:block-container>, <fo:list-block>, <fo:table-row>

**Values:** auto | avoid

**Initial:** auto

**Inherited:** yes

#### page-citation-strategy

This property sets which page should be displayed as the last page of a formatting object (typically chapters, sections, etc.) in the page number reference. With the default value all, any blank pages generated at the end will be treated as the last page. With the normal value, the page where the referenced object (chapter, section, etc.) actually ends is referenced as the last one. With the non-blank value, pages containing

content outside the text flow (`<fo:footnote>`, `<fo:float>`) are also included in the referencing.

**Applies to:** `<fo:page-number-citation-last>`

**Values:** all | normal | non-blank

**Initial:** all

**Inherited:** no

#### page-height

This property specifies the height of a page (sheet size). With the value `<length>` any height can be given in a valid unit of measurement. With the default value `auto` the height specified in the formatter is used. The indefinite value is not supported in practice.

**Applies to:** `<fo:simple-page-master>`

**Values:** auto | indefinite | `<length>`

**Initial:** auto

**Inherited:** no

#### page-number-treatment

This property can be used to specify the page references in an index as active links. With the default value `no-link` the page references are no links. With the alternative value `link` the page references are configured as links to the corresponding page.

**Applies to:** `<fo:index-key-reference>`

**Values:** link | no-link

**Initial:** no-link

**Inherited:** yes

#### page-position

This property sets to what extent the referenced page template (`<fo:simple-page-master>`) is appropriate at this point in the page

sequence. The value `only` is applicable if the document consists of only one page. The first value selects the page template if the given page within the page sequence is the first page, the last value if the page is the last page. With `rest` the page template is applied if the page is neither a first nor a last page. With `any` the page template is selected regardless of the page positioning.

The value `second` takes the second page (the page after first). `<An+B>` means, you can specify in the same format as `:nth()` in CSS.

**Applies to:** `<fo:conditional-page-master-reference>`

**Values:** `only` | `first` | `last` | `rest` | `any` | `second` | `<An+B>`

**Initial:** `any`

**Inherited:** `no`

#### page-width

This property specifies the width of a page (sheet size). With the value `<length>` any width can be given in a valid unit of measurement. With the default value `auto` the width specified in the formatter is used. The indefinite value is not supported in practice.

**Applies to:** `<fo:simple-page-master>`

**Values:** `auto` | `indefinite` | `<length>`

**Initial:** `auto`

**Inherited:** `no`

#### position

This property specifies the positioning scheme to be used. The default value `static` says that the given box is to be treated as a normal box within the text flow. The `top`, `right`, `bottom`, and `left` properties are irrelevant with this value. With the relative value, the positioning of the given box is initially set by the normal text flow as well. Based on this, the box is moved accordingly. The following box is positioned

as if its predecessor had not been moved. At the absolute value, the box is positioned according to the `top`, `right`, `bottom`, and `left` properties. These properties start from the box that contains the given box. With the fixed value, the box is also positioned according to the `top`, `right`, `bottom` and `left` properties, except that here the reference is not the surrounding box, but the page (in the case of a page output medium) in which the box is contained.

**Applies to:** all formatting objects

**Values:** static | relative | absolute | fixed

**Initial:** static

**Inherited:** no

## precedence

This property specifies the precedence of certain regions (`<fo:region-before>`, `<fo:region-after>`, `<fo:region-start>` or `<fo:region-end>`) over neighboring regions. The property can only be applied to the `<fo:region-before>` (header region) and/or the `<fo:region-after>` (footer region)! The default value `false` causes the `<fo:region-start>` (left page area) and `<fo:region-end>` (right page area) to take precedence over the header and footer areas, i.e. to occupy the entire page height. In the opposite case (`true`), the header and footer have precedence over the page regions. Thus, the header and footer extend to the entire page width.

**Applies to:** `<fo:region-after>`, `<fo:region-before>`

**Values:** true | false

**Initial:** false

**Inherited:** no

#### provisional-distance-between-starts

This property specifies the distance between the start of the list label and the start of the list body. The property value is not processed directly, but is taken into account in the calculation of the `body-start()` function. `body-start()` (the indentation of the list body) is equal to the left indentation for the given list within the parent box, if any, plus the indentation for float blocks, if any, plus the value for `provisional-distance-between-starts`.

**Applies to:** `<fo:list-block>`

**Values:** `<length>`

**Initial:** 24.0pt

**Inherited:** yes

#### provisional-label-separation

This property specifies the distance between the end of the list label and the beginning of the list body. The property value is not processed directly in the formatting, but is taken into account in the calculation of the `label-end()` function. Considering that the list label and the list body are both left-aligned, the `<length>` value specifies the minimum distance between the two list objects.

**Applies to:** `<fo:list-block>`

**Values:** `<length>`

**Initial:** 6.0pt

**Inherited:** yes

#### reference-orientation

This property specifies the Top of an area compared to the current writing direction. The property is used to rotate content in 90° increments. For left-right writing direction, the value 90 causes the

contents to be rotated to the left (Top is left). It should be noted that the property is only applicable to objects that form reference areas. As of the standard V.1.1, the specification of reference-orientation in `<fo:region-*>` has no effect unless it is repeatedly specified in `<fo:page-sequence>` with the value of the `from-page-master-region()` function.

**Applies to:** `<fo:block-container>`, `<fo:inline-container>`, `<fo:page-sequence>`, `<fo:region-after>`, `<fo:region-before>`, `<fo:region-body>`, `<fo:region-end>`, `<fo:region-start>`, `<fo:simple-page-master>`

**Values:** 0 | 90 | 180 | 270 | -90 | -180 | -270

**Initial:** 0

**Inherited:** yes

#### ref-id

This property specifies in directories the reference to the object that has the specified unique identifier in the `id` property. The reference can be generated by the XSLT function. For index ranges, the value of the property in `<fo:index-range-end>` refers to the value of the same name of the `id` property in `<fo:index-range-begin>`. Both objects thus enclose an index range. Otherwise, the reference is to any `id` object with the same name.

**Applies to:** `<fo:index-range-end>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`, `<fo:scaling-value-citation>`

**Values:** `<idref>`

**Initial:** none

**Inherited:** no

#### ref-index-key

This property is used to reference a `index-key`. It is an error if there is no text identical `index-key` for the specified `ref-index-key`.



**Applies to:** <fo:index-key-reference>

**Values:** <string>

**Initial:** None, a value (string) must be specified.

**Inherited:** no

region-name

This property specifies the name for a region within a page template (<fo:simple-page-master>). All values except <name> are reserved names for the regions named by the values, which must not be used for other regions. xsl-region-body stands for the main region of a page (<fo:region-body>), xsl-region-start for the left page region (for left-right writing direction) (<fo:region-start>), xsl-region-end for the right page region (<fo:region-end>, xsl-region-after for the footer region (<fo:region-after>), xsl-region-before for the header region (<fo:region-before>), xsl-before-float-separator for the region between a float object and the adjacent content, xsl-footnote-separator between the normal text flow and the following footnotes. <name> is used to specify a region which must be unique and valid only within the given page template.

**Applies to:** <fo:region-after>, <fo:region-before>, <fo:region-body>, <fo:region-end>, <fo:region-start>

**Values:** xsl-region-body | xsl-region-start | xsl-region-end | xsl-region-after | xsl-region-before | xsl-before-float-separator | xsl-footnote-separator | <name>

**Initial:** none

**Inherited:** no

## region-name-reference

This property is used to specify a text flow ([<fo:flow>](#)) to be used in a [<fo:flow-target-list>](#) object.

**Applies to:** [<fo:region-name-specifier>](#)

**Values:** [<name>](#)

**Initial:** None, a name must be specified.

**Inherited:** no

## relative-align

This property specifies the alignment of list objects and table cells in vertical direction (for left-right writing direction). This property is ignored if the `display-align` property with a value other than `auto` is specified for the object in question at the same time. For the `baseline` value, the alignment is done to the baseline of the parent object (table row). The default value is `before`, which aligns the given object to the top.

**Applies to:** [<fo:list-item>](#), [<fo:table-cell>](#)

**Values:** `before` | `baseline`

**Initial:** `before`

**Inherited:** `yes`

## relative-position

This property stands for positioning with limited positioning possibilities compared to the [position](#) property. Only relative positioning is possible.

**Applies to:** all block objects (except [<fo:block-container>](#)) and inline objects

**Values:** `static` | `relative`

**Initial:** `static`

**Inherited:** `no`

rendering-intent (AHF: not supported)

This property specifies a different rendering plan for a color profile than the default one. The property and its values can be used primarily for CMYK-based color profiles. The effects of the property values are strongly system-related.

**Applies to:** <fo:color-profile>

**Values:** auto | perceptual | relative-colorimetric | saturation | absolute-colorimetric

**Initial:** auto

**Inherited:** no

retrieve-boundary

This property specifies the bounds for rendering live page headings. With the page value, the content of a <fo:marker> object occurring on the given page is used. With the default value page-sequence, the live page heading is repeated until a new <fo:marker> object with the same marker-class-name occurs. With document, the live page heading is kept for the document scope.

**Applies to:** <fo:retrieve-marker>,

**Values:** page | page-sequence | document

**Initial:** page-sequence

**Inherited:** no

retrieve-class-name

This property in the <fo:retrieve-marker> object references an <fo:marker> object with the same value for the marker-class-name property. marker-class-name and retrieve-class-name have a corresponding reference relationship as id and ref-id.

**Applies to:** <fo:retrieve-marker>,, <fo:retrieve-table-marker>

**Values:** <name>

**Initial:** empty name

**Inherited:** no

#### retrieve-position

This property specifies the preference for taking a `<fo:marker>` content as a living page heading. For the default value `first-starting-within-page`, the `<fo:marker>` object that occurs first on the given page, for example a section starting on that page, is preferred. For `first-including-carryover`, the section that wraps from the previous page to the given page is preferentially rendered as the page heading. For `last-starting-within-page`, the last `<fo:marker>` object starting on the given page (for example, a section) is preferred. For `last-ending-within-page`, the `<fo:marker>` object ending on the given page is preferably chosen. This only works if the `<fo:marker>` object stands inside a container object that denotes the scope for `<fo:marker>`. For example, this is a section, and the `<fo:marker>` content is the section heading for use as living page heading.

**Applies to:** `<fo:retrieve-marker>`,

**Values:** `first-starting-within-page` | `first-including-carryover` | `last-starting-within-page` | `last-ending-within-page`

**Initial:** `first-starting-within-page`

**Inherited:** no

#### retrieve-boundary-within-table

This property corresponds to `retrieve-boundary`, with the difference of the restriction of application in tables.

**Applies to:** `<fo:retrieve-table-marker>`

**Values:** `table` | `table-fragment` | `page`

**Initial:** `table`

**Inherited:** no

## retrieve-position-within-table

This property corresponds to [retrieve-position](#), with the difference of the restriction of the application in tables.

**Applies to:** [<fo:retrieve-table-marker>](#)

**Values:** first-starting | first-including-carryover | last-starting | last-ending

**Initial:** first-starting

**Inherited:** no

## right

This property specifies the right border for positioned objects within the block or area containing the object.

**Applies to:** [<fo:block-container>](#)

**Values:** [<length>](#) | [<percentage>](#) | auto

**Initial:** auto

**Inherited:** no

## role

The property can be used to include content-related identifiers. This can then be used to handle the content for alternative outputs (e.g. speech output) in a specific way. The [<string>](#) value is used to specify the desired content-related identifier. With [<uri-specification>](#) an RDF resource (XML object, syntactically valid according to the RDF grammar) is specified.

**Applies to:** all formatting objects that can be generated directly from the XML source data

**Values:** [<string>](#) | [<uri-specification>](#) | none

**Initial:** none

**Inherited:** no

## rule-style

This property specifies the line pattern for leaders. The property is only applicable if at the same time the [leader-pattern](#) property has the rule value. For the none value, no line or one with width of 0pt is created. At dotted, the pattern consists of a sequence of dots. For dashed, the pattern consists of a sequence of short line segments. For the default value solid, the pattern consists of one continuous line. With double, a double line is created. The sum of the two lines and the spacing between them is equal to the value of the [rule-thickness](#) property. With groove the upper part of the line is displayed in full color (usually black) and the lower part of the line is lightened according to the line thickness. ridge corresponds to the groove value with the difference that the line appears full-color at the bottom and lightened at the top.

**Applies to:** <fo:leader>

**Values:** none | dotted | dashed | solid | double | groove | ridge

**Initial:** solid

**Inherited:** yes

## rule-thickness

This property specifies the width of a leader pattern. The property is only applicable if at the same time the [leader-pattern](#) property has the rule value. The <length> value can be specified with any value in a valid unit of measurement.

**Applies to:** <fo:leader>

**Values:** <length>

**Initial:** 1.0pt

**Inherited:** yes

## scale-option

This property sets whether the scaling factor for graphics should be based on width or height. With the default value (width) it refers to the width.

**Applies to:** <fo:scaling-value-citation>

**Values:** width | height

**Initial:** width

**Inherited:** yes

## scaling

This property specifies whether the specified ratio of height and width must be maintained or can be changed when scaling, for example, a graphic. With the default value uniform the height-width ratio is kept, with non-uniform the ratio can be changed when resizing.

**Applies to:** <fo:external-graphic>, <fo:instream-foreign-object>

**Values:** uniform | non-uniform

**Initial:** uniform

**Inherited:** no

## scaling-method (AHF: not supported)

This property specifies a preference for the scaling method of bitmap graphics. With the default value auto it is up to the formatter which method is used to scale the graphics. The integer-pixels value is intended to cause the formatter to scale each pixel in the original to the nearest integer number of pixels output to achieve a smaller or equal image size, taking into account height, width, and scaling instructions. With the resample-any-method value, the formatter shall use a method of its choice to handle the image according to height, width, and scaling instructions.

**Applies to:** <fo:external-graphic>, <fo:instream-foreign-object>

**Values:** auto | integer-pixels | resample-any-method

**Initial:** auto

**Inherited:** no

#### score-spaces

This property specifies whether the setting of the [text-decoration](#) property is also valid for spaces. With the default value true spaces get the same text-decoration as the other characters. With the value false one achieves that the blanks are excluded from the text decoration.

**Applies to:** <fo:bidi-override>, <fo:character>, <fo:initial-property-set>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>

**Values:** true | false

**Initial:** true

**Inherited:** yes

#### script (AHF: extended supported)

This property specifies for certain language families whether and if so which script should be used to support line alignment, line breaking, and hyphenation. With the default value auto the script is set by the script identifier which is set for the character set in Unicode. With the none value, the script is set to undefined or irrelevant for processing. To specify the <script> value, set a script specification according to ISO 15924. See the scripts supported by the AH XSL Formatter (<script-font>) and how to use them.

**Applies to:** <fo:block>, <fo:character>

**Values:** none | auto | <script>

**Initial:** auto

**Inherited:** yes



## show-destination

This property specifies how the target of a reference/link should be displayed in an interactive application. The default value `replace` causes the given document view to be replaced by the link target or to scroll to the link target. With `new` an additional view is opened.

**Applies to:** `<fo:basic-link>`

**Values:** `replace` | `new`

**Initial:** `replace`

**Inherited:** `no`

## size

This property is used to specify the page size and page orientation in CSS. In XSL-FO the properties `page-height` and `page-width` are defined for this purpose.

**Applies to:** CSS

**Values:** `<length> {1,2}` | `auto` | `landscape` | `portrait`

**Initial:** `auto`

**Inherited:** `no`

## source-document

This property sets a pointer back to the source XML document.

**Applies to:** `<fo:basic-link>`, `<fo:block>`, `<fo:bookmark>`, `<fo:bookmark-title>`, `<fo:change-bar-begin>`, `<fo:change-bar-end>`, `<fo:external-graphic>`, `<fo:footnote>`, `<fo:footnote-body>`, `<fo:initial-property-set>`, `<fo:inline>`, `<fo:instream-foreign-object>`, `<fo:leader>`, `<fo:list-block>`, `<fo:list-item>`, `<fo:list-item-body>`, `<fo:list-item-label>`, `<fo:multi-case>`, `<fo:multi-properties>` `<fo:multi-switch>`, `<fo:multi-toggle>`, `<fo:page-number>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`, `<fo:table>`, `<fo:table-and-caption>`, `<fo:table-body>`, `<fo:table-caption>`,

`<fo:table-cell>`, `<fo:table-footer>`, `<fo:table-header>`, `<fo:table-row>`,  
`<fo:title>`

**Values:** `<uri-specification>` [ `<uri-specification>` ]\* | none

**Initial:** none

**Inherited:** no

## space-after

This property specifies the spacing between the given and the immediately following block (spacing down in the left-right write direction). Using `<space>` as a positive value in a valid unit of measure specifies the distance measure. Adding the `.minimum` component specifies a minimum spacing, `.maximum` specifies the maximum spacing, and `.optimum` specifies the optimum spacing. Applying these components gives the so-called vertical wedge, i.e. pages of equal height with different spacing between blocks for which these component specifications are given. With `.conditionality` and the value `discard` it is specified that the spacing specification should be ignored at a page break. With the `retain` value, the spacing will be maintained even if a page break occurs at the top of a new page. With `.precedence` and an integer value, precedence or subordination to a `space-before` specification is specified in the following block.

**Applies to:** all block objects

**Values:** `<space>`

**Initial:** `space-after.minimum="0pt"`, `space-after.optimum="0pt"`,  
`space-after.maximum="0pt"`, `space-after.conditionality="discard"`, `space-after.precedence="0"`

**Inherited:** no

## space-before

This property specifies the spacing between the given and the immediately preceding block (spacing up in the left-right write direction). Using `<space>` as a positive value in a valid unit of measure specifies the distance measure. Adding the `.minimum` component specifies a minimum spacing, `.maximum` specifies the maximum spacing, and `.optimum` specifies the optimum spacing. Applying these components gives the so-called vertical wedge, i.e. pages of equal height with different spacing between blocks for which these component specifications are given. With `.conditionality` and the value `discard` it is specified that the spacing specification should be ignored at a page break. With the `retain` value, the spacing will be maintained even if a page break occurs at the top of a new page. With `.precedence` and an integer value, precedence or subordination to a `space-after` specification is specified in the preceding block.

**Applies to:** all block objects

**Values:** `<space>`

**Initial:** `space-before.minimum="0pt", space-before.optimum="0pt", space-before.maximum="0pt", space-before.conditionality="discard", space-before.precedence="0"`

**Inherited:** no

## space-end

This property specifies the spacing between the given and the immediately following inline block in the writing direction (spacing to the right in the left-right writing direction). Using `<space>` as a positive value in a valid unit of measure specifies the distance measure. Adding the `.minimum` component specifies a minimum spacing, `.maximum` specifies the maximum spacing, and `.optimum` specifies the optimum spacing. The

spacing can also be specified as a percentage. This refers to the width of the parent block.

**Applies to:** all inline objects

**Values:** <space> | <percentage>

**Initial:** space-end.minimum="0pt", space-end.optimum="0pt", space-end.maximum="0pt", space-end.conditionality="discard", space-end.precedence="0"

**Inherited:** no

### space-start

This property specifies the spacing between the given and the immediately preceding inline block in the writing direction (spacing to the left in the left-right writing direction). Using <space> as a positive value in a valid unit of measure specifies the distance measure. Adding the .minimum component specifies a minimum spacing, .maximum specifies the maximum spacing, and .optimum specifies the optimum spacing. The spacing can also be specified as a percentage. This refers to the width of the parent block.

**Applies to:** all inline objects

**Values:** <space> | <percentage>

**Initial:** space-start.minimum="0pt", space-start.optimum="0pt", space-start.maximum="0pt", space-start.conditionality="discard", space-start.precedence="0"

**Inherited:** no

### span

This property specifies whether a block object should span all columns of a multi-column area or fit into the given column. The property can be set only for blocks that are direct child objects of a text flow

(<fo:flow>). With the default value none the block fits into the given column, with all the block spans all columns, so it is set page-wide.

**Applies to:** <fo:block>, <fo:block-container>

**Values:** none | all

**Initial:** none

**Inherited:** no

src in <fo:external-graphic>

This property references an external resource (e.g. a graphic or multimedia object) to be embedded or referenced at this point.

**Applies to:** <fo:external-graphic>, <fo:color-profile>, <axf:formatter-config>, <axf:hyphenation-info>

**Values:** <uri-specification>

**Initial:** none

**Inherited:** no

src in <axf:font-face> (AHF: extended supported)

This property references an additional, separately stored font resource to be included in the formatting.

**Applies to:** <axf:font-face>

**Values:** [ <uri-specification> [format(<string>)]? | <font-face-name> ]#

**Initial:** none

**Inherited:** no

start-indent

This property sets the space between the left edge of a block and the left edge of the corresponding reference area. The block is thus indented on the left which applies to the writing direction left-right.

**Applies to:** `<fo:block>`, `<fo:block-container>`,  
`<fo:list-block>`, `<fo:list-item>`, `<fo:list-item-body>``<fo:region-body>`,  
`<fo:simple-page-master>`, `<fo:table>`, `<fo:table-and-caption>`

**Values:** `<length>`

**Initial:** 0pt

**Inherited:** yes

starting-state (AHF: not supported)

This property concerns an interactive output: the parent `<fo:multi-switch>` object should display the contents of the first-occurring `<fo:multi-case>` object first for the default value show. For hide, it should not be displayed. The same applies to `<fo:bookmark>`.

**Applies to:** `<fo:multi-case>`, `<fo:bookmark>`

**Values:** show | hide

**Initial:** show

**Inherited:** no

starts-row

This property specifies whether the given cell forms the beginning of a new table row. With the default value false the cell does not start a new table row. With true a new table row is generated without there being a tag for the start of a new table row in the XML source document.

**Applies to:** `<fo:table-cell>`

**Values:** true | false

**Initial:** false

**Inherited:** no

suppress-at-line-break (AHF: not supported)

This property specifies the circumstances of suppressing characters immediately before line breaks. With the default value `auto` the space character (U+0020) is suppressed, all other characters are displayed. With `suppress` characters that stand at the beginning or end of a line are suppressed. With `retain` the characters are displayed, even if they stand at the beginning or end of a line.

**Applies to:** `<fo:character>`

**Values:** `auto` | `suppress` | `retain`

**Initial:** `auto`

**Inherited:** `no`

switch-to (AHF: not supported)

This property specifies in an interactive application which `<fo:multi-toggle>` object to switch to. For the `xsl-preceding` value, the given `fo:multi`-case object is replaced by its direct predecessor when the switch is activated, for `xsl-following` by its direct successor. With `xsl-any`, the user is free to choose any neighbor. With `<name>` one or more `fo:multi`-case objects are specified to switch to.

**Applies to:** `<fo:multi-toggle>`

**Values:** `xsl-preceding` | `xsl-following` | `xsl-any` | `<name>` | [`<name>` ]\*

**Initial:** `xsl-any`

**Inherited:** `no`

table-layout

This property specifies an algorithm for the layout of table cells, table rows and table columns. With the `fixed` value, the horizontal layout of the table is based solely on the user's specifications for table width, column widths, and the border or space between cells, not on the contents of the cells. With the default value `auto`, the column widths

are calculated using a complex algorithm, similar to HTML browsers, taking into account the cell contents.

**Applies to:** `<fo:table>`

**Values:** auto | fixed

**Initial:** auto

**Inherited:** no

`table-omit-footer-at-break` (AHF: extended supported)

Setting this property to the value `true` avoids that the table footer (`<fo:table-footer>`) is set repeatedly at the end of each column and page for a table that is wrapped to several columns or pages due to its size. With the default value `false` the footer is repeated at the end of each column and page.

In the AH XSL Formatter the value `column` is added. Setting this value omits footer on column breaks, but not on page breaks.

**Applies to:** `<fo:table>`

**Values:** true | false | column

**Initial:** false

**Inherited:** no

`table-omit-header-at-break` (AHF: extended supported)

Setting this property to the value `true` avoids that the table header (`<fo:table-header>`) is set repeatedly at the start of each column and page for a table that is wrapped to several columns or pages due to its size. With the default value `false` the header is repeated at the start of each column and page.

In the AH XSL Formatter the value `column` is added. Setting this value omits header on column breaks, but not on page breaks.

**Applies to:** `<fo:table>`

**Values:** true | false | column



**Initial:** false  
**Inherited:** no

target-presentation-context (AHF: not supported)

This property specifies the limited context of the presentation resource in an interactive application. The default value use-target-processing-context specifies the application of the [target-processing-context](#) property.

**Applies to:** [<fo:basic-link>](#)

**Values:** use-target-processing-context | [<uri-specification>](#)

**Initial:** use-target-processing-context

**Inherited:** no

target-processing-context (AHF: not supported)

In an interactive application, this property specifies the root of a virtual document to be processed by the processor if it is a structured resource (e.g. XML, SVG). The default value document-root selects the root element of the reference target (topmost element of the external document) for processing. With [<uri-specification>](#) other nodes can be specified.

**Applies to:** [<fo:basic-link>](#)

**Values:** document-root | [<uri-specification>](#)

**Initial:** document-root

**Inherited:** no

target-stylesheet (AHF: not supported)

This property specifies the stylesheet to be used for a document in an interactive application. With the default value use-normal-stylesheet, the application will use the usual methods of stylesheet selection. Alternative stylesheets can be addressed with [<uri-specification>](#).

**Applies to:** <fo:basic-link>

**Values:** use-normal-stylesheet | <uri-specification>

**Initial:** use-normal-stylesheet

**Inherited:** no

#### text-align

This property specifies the alignment of the lines within a block.

With the default value start the alignment is left-aligned (for left-right writing direction), with center the alignment is centered, with end the alignment is right-aligned (for left-right writing direction), with justify the lines are expanded to the block width. With inside, lines are right-aligned on a left page, left-aligned on a right page, and vice versa with outside. For left left alignment is used, for right right alignment is used. Only for blocks that are immediate child objects in table cells: The <string> value can be used to specify any character (e.g. a dot) or string to which the contents in a table column should be aligned.

**Applies to:** all block objects

**Values:** start | center | end | justify | inside | outside | left | right  
| <string>

**Initial:** start

**Inherited:** yes

#### text-align-last

This property specifies the alignment of the last line of a block. With the default value relative, if text-align="justify" is set, the last line is left-aligned. If the alignment of a block has values other than justify, the alignment is according to the value of text-align. If start is set left-aligned (for left-right writing direction), if center is set center-aligned, if end is set right-aligned (for left-right writing direction), if justify is set, the line is expanded to block width. With inside the line is

right-aligned on a left page, left-aligned on a right page, with outside vice versa. For left left alignment is used, for right right alignment is used.

**Applies to:** <fo:block>

**Values:** relative | start | center | end | justify | inside | outside | left | right | <string>

**Initial:** relative

**Inherited:** yes

#### text-altitude

This property specifies the text height above the baseline different from the font metrics. With the default value use-font-metrics the text height is used according to the font metrics. With <length> a different text height can be specified.

**Applies to:** <fo:block>, <fo:character>, <fo:leader>, <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>

**Values:** use-font-metrics | <length>

**Initial:** use-font-metrics

**Inherited:** no

#### text-decoration

This property specifies decorations (typically underlines, overlines, strikethroughs) that can be added to the text of an object. The default value none negates any decoration. The other values, as long as they are not mutually exclusive, can be used in combination: underline causes an underline, overline causes an overline, and line-through causes a strike-through. The blink value is only useful in interactive applications. The values with the no- prefix cause suppression of the decoration in question.

**Applies to:** all formatting objects

**Values:** none | [[ underline | no-underline ] || [ overline |no-overline ]  
||

[ line-through | no-line-through ] || [ blink | no-blink ]]

**Initial:** none

**Inherited:** in principle no. However, if the decoration is applied to block objects, then it applies to the child inline objects as well. If the decoration is applied to inline objects, then it applies to all boxes (characters) of their content.

#### text-depth

This property specifies the text height below the baseline different from the font metrics. With the default value `use-font-metrics` the text height is used according to the font metrics. With `<length>` a different text height can be specified.

**Applies to:** `<fo:block>`, `<fo:character>`, `<fo:leader>`, `<fo:page-number>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`

**Values:** `use-font-metrics` | `<length>`

**Initial:** `use-font-metrics`

**Inherited:** no

#### text-indent

This property specifies the indentation of the first line of text in a block. The `<length>` value can be used to specify any value in a valid unit of measure. Positive values create an indent, negative values create a hanging indent. With `<percentage>` a relative value can be specified which refers to the width of the block.

**Applies to:** all block objects

**Values:** `<length>` | `<percentage>`

**Initial:** `0pt`

**Inherited:** yes

## text-shadow

This property specifies a list of shadow effects that will be applied to the text of an object. With the default value `none` no shadow is created. With the values `<color>` the shadow color is defined, to which values of type `<length>` are added. A shadow is positioned by two length measures relative to the position of the normal text character: The first length specifies the horizontal distance (with positive values to the right, with negative to the left), the second the vertical distance (with positive values down, with negative up). Optionally, a blur dimension can be specified with the third length (ignored by the AH XSL Formatter). The length groups of a color are separated by commas. The constraints of this feature are described in the Online Manual at `text-shadow`. They concern some output formats, font aspects and others.

**Applies to:** all which can have borders

**Values:** `none` | [ `<length>`{2,3} && `<color>`? ]#

**Initial:** `none`

**Inherited:** `no`

## text-transform (AHF: extended supported)

This property controls the transformation from upper to lower case or vice versa of a text. With the default value `none` no character transformation is performed. With `capitalize` each initial letter of a word is rendered as a capital letter. With `uppercase` all characters are rendered as uppercase, with `lowercase` as lowercase.

Three values are added in the AH XSL Formatter: `capitalize-lowercase`, `fullwidth` und `fullwidth-if-vertical`.

**Applies to:** all elements

**Values:** `none` | [[ `capitalize` | `uppercase` | `lowercase` | `capitalize-lowercase` ] ]

[ `fullwidth` | `fullwidth-if-vertical` ] ]

**Initial:** none

**Inherited:** yes

top

This property specifies the top border for positioned objects (block containers) within the block or area containing the object.

**Applies to:** <fo:block-container>

**Values:** <length> | <percentage> | auto

**Initial:** auto

**Inherited:** no

treat-as-word-space (AHF: not supported)

This property specifies whether a character is to be treated as a space or as a normal letter. With the default value auto only the space and the permanent space (U+0020 and U+00A0) are treated as word separators. In a font, other characters may be classified as word separators. These characters are treated as if the true value is specified, i.e. they are used to expand lines to equal width if necessary (justification). With true the designated character is specified as word separator. With false the use for expanding the line is prevented.

**Applies to:** <fo:character>

**Values:** auto | true | false

**Initial:** auto

**Inherited:** no

unicode-bidi

This property specifies a new writing direction of a string within a given writing direction. With the default value normal nothing happens. With the embed value, an additional embedding layer is opened for an inline object according to the Unicode bidirectional algorithm. The

writing direction of this embedding layer is set by the value of the `direction` property. The `bidi-override` value is used to override ordering in inline objects or block objects that contain only inline objects. This means that the ordering within the object strictly matches the value of the `direction` property. The implicit part of the Unicode bidirectional algorithm is ignored.

**Applies to:** all objects

**Values:** normal | embed | bidi-override

**Initial:** normal

**Inherited:** no

### vertical-align

This property specifies the vertical alignment of inline blocks and within table cells. With the `baseline` value, the baseline of the given block is aligned with that of the parent object. With `middle`, the vertical center of the given block is aligned with the baseline of the parent object plus half the height of a lowercase letter in the parent object. With `sub`, the baseline of the given block is lowered relative to the baseline of the parent object for subscript text, and raised for `super` for superscript text. This does not reduce the size of the font! With `text-top` the text of the given object is aligned to the parent object's top line, with `text-bottom` to the bottom line. With `top` the text is aligned to the headline of the line, with `bottom` to the footline of the line. With `<percentage>` a relative value is specified. If this is a positive value, the baseline will be moved up according to the line height, if negative, it will be moved down. A value of `0%` is equivalent to `baseline`. An absolute value is specified with `<length>`. If this is a positive value, the baseline will be moved up according to the line height; if negative, it will be moved down. A value of `0mm` corresponds to the value `baseline`.

**Applies to:** inline objects and table cell objects

**Values:** baseline | middle | sub | super | text-top | text-bottom | [<percentage>](#) | [<length>](#) | top | bottom

**Initial:** baseline

**Inherited:** no

#### visibility

This property specifies the display or suppression of the display. With the default value visible the content is processed normally and displayed in its box. With hidden the generated box is invisible (transparent), but it is included in typeset and pagination. With collapse the invisible box also no longer takes up any space.

**Applies to:** all objects

**Values:** visible | hidden | collapse

**Initial:** visible

**Inherited:** no

#### white-space

This property specifies the treatment of whitespace characters within the text. With the default value normal sequences of whitespace characters are reduced to one space. The whitespace characters are used for line breaks, if necessary, and eliminated in the process. Additional line breaks can be generated by inserting \A in the text flow. Space reduction is avoided with pre. Line breaks are generated only where line breaks or \A stand in the text flow. With nowrap, sequences of spaces are reduced to one (like normal). However, spaces are not used for line breaks. Only at \A in the text flow are line breaks set.

**Applies to:** [<fo:block>](#)

**Values:** normal | pre | nowrap

**Initial:** normal

**Inherited:** yes



## white-space-collapse

This property specifies the handling of multiple, directly consecutive spaces in the text flow. With the default value `true`, consecutive whitespace characters are reduced to one space. Spaces that stand directly before a linefeed character are eliminated. With `false` no whitespace treatment is performed.

**Applies to:** `<fo:block>`

**Values:** `false` | `true`

**Initial:** `true`

**Inherited:** `yes`

## white-space-treatment

This property specifies how whitespace and corresponding characters with whitespace character should be handled in the text flow. With the default value `ignore-if-surrounding-linefeed` all whitespace characters immediately preceding or following the linefeed character are eliminated. With `ignore`, only the whitespace characters preceding the linefeed character are eliminated. With `preserve`, all space-characters are converted to spaces (U+0020) and preserved. With `ignore-if-before-linefeed`, the spaces before the linefeed character are eliminated and the spaces after are preserved, vice versa for `ignore-if-after-linefeed`.

**Applies to:** `<fo:block>`

**Values:** `ignore` | `preserve` | `ignore-if-before-linefeed` | `ignore-if-after-linefeed` |

`ignore-if-surrounding-linefeed`

**Initial:** `ignore-if-surrounding-linefeed`

**Inherited:** `yes`

## widows

This property specifies the minimum number of lines of a block after breaking the block to a new column or page. The default value 2 keeps at least two lines of a paragraph together at the top of the following column or page.

**Applies to:** <fo:block>

**Values:** <integer>

**Initial:** 2

**Inherited:** yes

## width

This property specifies the content width of blocks. The default value auto says that the width is set by other properties. With <length> a width is set in a valid unit of measurement. With <percentage> a relative width with respect to the parent object is specified.

**Applies to:** all block objects

**Values:** <length> | <percentage> | auto

**Initial:** auto

**Inherited:** no

## word-spacing

This property specifies the spacing between words. The spacing is system-dependent and is also influenced by the alignment of the lines. The default value normal denotes normal spacing, which is affected by font, font size, and typesetting system defaults. The <length> specifies a value in a valid unit of measurement, which is added to the default word spacing. Negative values can also be specified, but there may be system constraints on these. <space> allows to define a range for word spacing which is added to the default word spacing. The minimum and maximum values denote the limits for adjusting the word spacing.

The following components can be used for range specification: `word-spacing.minimum` (minimum value), `word-spacing.maximum` (maximum value), `word-spacing.optimum` (optimum value).

**Applies to:** all objects

**Values:** `normal` | `<length>` | `<space>`

**Initial:** `normal`

**Inherited:** `yes`

#### `wrap-option`

This property specifies how a line break is treated. With the default value `wrap` the lines are broken if the content exceeds the specified block width. With `no-wrap`, the content is not wrapped to lines. The content exceeding the given block width will be treated according to the `overflow` properties of the reference area.

**Applies to:** `<fo:block>`, `<fo:inline>`, `<fo:page-number>`, `<fo:page-number-citation>`, `<fo:page-number-citation-last>`

**Values:** `no-wrap` | `wrap`

**Initial:** `wrap`

**Inherited:** `yes`

#### `writing-mode` (AHF: partially supported)

This property specifies the writing direction for reference area forming objects. Applying `writing-mode` to page templates (`<fo:simple-page-master>`) sets the top, bottom, right, and left placement of page areas. The writing direction within the areas sets the direction of the text flow and how blocks are lined up. With the default value `lr-tb`, the writing direction goes from left to right and from top to bottom. Changing the writing direction within a page area is possible within `<fo:block-container>` and `<fo:inline-container>` objects. In tables, `writing-mode` causes horizontal alignment of columns or cells, corresponding to

vertical alignment of table rows. This allows tables to be rotated. The `rl-tb` value specifies the writing direction for Arabic and Hebrew (right to left and top to bottom). `tb-rl` specifies the writing direction from top to bottom and right to left (for Chinese and Japanese). `lr` is a shorthand for `lr-tb`, `rl` one for `rl-tb`, `tb` one for `tb-rl`.

As of the standard V.1.1, the specification of `writing-mode` in `<fo:region-*>` has no effect unless it is repeatedly specified in `fo:page-sequence` with the value of the `from-page-master-region()` function.

**Applies to:** `<fo:page-sequence>`, `<fo:simple-page-master>`, `<fo:region-after>`, `<fo:region-before>`, `<fo:region-body>`, `<fo:region-end>`, `<fo:region-start>`, `<fo:block-container>`, `<fo:inline-container>`

**Values:** `lr-tb` | `rl-tb` | `tb-rl` | `lr` | `rl` | `tb`

**Initial:** `lr-tb`

**Inherited:** yes

#### `xml:lang`

This property specifies the language and country according to whose rules hyphenation and line breaks should be handled. The language is denoted by the `<language-country>` value. The value for language is a two- or three-letter abbreviation according to ISO 639-2:1998, for example for German `de(u)`, for English `en(g)` and for French `fr(a)`. The value for country is optional. The functionality is equivalent to the `language` property. The use of `language` is preferred.

**Applies to:** `<fo:block>`, `<fo:character>`, `<fo:page-sequence>`, `<axf:hyphenation-info>`, `<axf:space-after-punctuation>`, `<axf:space-before-punctuation>`, `<axf:space-between-digit-and-punctuation>`, `<axf:space-between-punctuation-and-digit>`

**Values:** `<language-country>`

**Initial:** none

**Inherited:** yes

z-index

This property specifies the stacking level for positioned objects (`<fo:block-container>`). This allows stacking of a number of layers of blocks. If nothing different is specified by background properties, then the blocks stacked in such a way are transparent, i.e., from the topmost block with stacking index 0 the contents of the subordinate blocks shine through. The default value `auto` states that the stacking index of the generated block is equal to that of the parent block. The current block does not establish a new stacking context.

**Applies to:** `<fo:block-container>`, `<fo:change-bar-begin>`

**Values:** `auto` | `<integer>`

**Initial:** `auto`

**Inherited:** yes

## 1.3 XSL Functions

Each function is described by the function prototype (type of rendering), the function name, and the parameters or arguments of the function. A parameter followed by a question mark is optional, one followed by an asterisk is optional and repeatable, otherwise the parameter is mandatory.

## abs()

The `abs()` function returns the absolute value of the numeric argument of the function. If the numeric argument is negative, the negation of the argument is returned.

**Syntax:** `numeric abs(numeric)`

## body-start()

The `body-start()` function returns the value specified with the `provisional-distance-between-starts` property.

The function is used in lists to specify the left indent of the list body. In `<fo:list-block>` the indent is set with the `provisional-distance-between-starts` property. The `body-start()` function as the value of the `start-indent` property in the `<fo:list-item-body>` object takes the value set in the `provisional-distance-between-starts` property.

**Syntax:** `numeric body-start()`

## ceiling()

The `ceiling()` function returns the smallest integer that is not smaller than the function's argument.

**Syntax:** `numeric ceiling(numeric)`

## floor()

The `floor()` function returns the largest integer that is not greater than the function's argument.

**Syntax:** `numeric floor(numeric)`

### from-nearest-specified-value()

The `from-nearest-specified-value()` function returns a calculated value of the nearest ancestor object property whose name corresponds to the argument.

**Syntax:** object `from-nearest-specified-value(NCName?)`

### from-page-master-region()

The `from-page-master-region()` function allows to take the writing-mode and reference-orientation specifications to be applied in a page sequence (`<fo:page-sequence>`) from the `<fo:region-*>` page areas.

**Syntax:** object `from-page-master-region(NCName?)`

### from-parent()

The `from-parent()` function returns a calculated value of the property of the parent object whose name corresponds to the argument.

**Syntax:** object `from-parent(NCName?)`

### from-table-column()

The `from-table-column()` function allows to transfer properties specified in `<fo:table-column>` referencing to the table cell level (`<fo:table-cell>`).

**Syntax:** object `from-table-column(NCName?)`

### inherited-property-value()

The `inherited-property-value()` function returns an inherited property.

Application example (from the standard):

```
<fo:list-item color="red">
```

```
<fo:list-item-body background-color="green">
```

```
<fo:block background-color="inherited-property-value(color)">
```

```
...</fo:block>
```

```
</fo:list-item-body>
```

```
</fo:list-item>
```

The background of the block in the list object is colored red.

**Syntax:** object inherited-property-value(NCName?)

label-end()

The label-end() function returns the value specified with the [provisional-label-separation](#) property.

The function is used in lists to specify the minimum spacing between list label and list body. In `<fo:list-block>` the minimum space is set with the [provisional-label-separation](#) property. The label-end() function as the value of the [end-indent](#) property in the `<fo:list-item-label>` object takes the value set in the [provisional-label-separation](#) property.

**Syntax:** numeric label-end()

max()

The max() function returns the larger value of the two numeric arguments of the function.

**Syntax:** numeric max(numeric, numeric)

merge-property-values() (AHF: not supported)

The merge-property-values() function returns a value of the shorthand property specified as argument. The value returned is the value last specified for `<fo:multi-property-set>`.

**Syntax:** object merge-property-values(NCName?)

min()

The min() function returns the smaller value of the two numeric arguments of the function.

**Syntax:** numeric min(numeric, numeric)



### proportional-column-width()

The `proportional-column-width()` function returns the proportional width of a table column. This is calculated as follows: The given absolute width of the table is multiplied by the proportional value of the function and divided by the sum of the proportional factors (values of the `column-width` property in the source data).

The `proportional-column-width()` function is set as the value of the `column-width` property in the `<fo:table-column>` object.

**Syntax:** `numeric proportional-column-width(numeric)`

### rgb()

The `rgb()` function returns a specific color from the RGB color space.

**Syntax:** `color rgb(numeric, numeric, numeric)`

### rgba()

The `rgba()` function extends the RGB color model (`rgb()`) with the opacity of a color.

**Syntax:** `color rgba(numeric, numeric, numeric, numeric)`

### rgb-icc() (AHF: extended supported)

The `rgb-icc()` function returns a specific color from the ICC color profile. The first three parameters specify the fallback color from the RGB color space. This color specification is used for display when the color specification by profile name cannot be applied. The syntax of this function may be different depending on the product. For syntax in the AH XSL Formatter see the extended function `rgb-icc()`.

**Syntax:** `color rgb-icc(numeric, numeric, numeric, NCName, numeric, numeric)`

## linear-gradient()

The `linear-gradient()` function is defined in the CSS recommendation <http://www.w3.org/TR/2012/CR-css3-images-20120417/#gradients> and is supported in the AH XSL Formatter in the `background-image` property.

### Syntax:

```
linear-gradient([[<angle> | to <side-or-corner>],]?  
    <color-stop>[, <color-stop> ]+)  
<side-or-corner> = [ left | right ] || [ top | bottom ]  
<color-stop> = <color> [ <percentage> | <length> ]?
```

The arguments mean:

`<angle>` specifies the gradient angle (from the starting point).

`0deg` (0 degrees) means up, `90deg` means right. All angles between 0 and 360 degrees are allowed, including negative values. If the angle is not specified, the angle `0deg` applies.

`<side-or-corner>` specifies the gradient angle to a side or corner. This angle is specified by keywords: to top (up), to bottom (down), to right (to the right), to left (to the left). The colors specified below are arranged accordingly, i.e. to top from bottom to top, to bottom from top to bottom, etc.

`<color-stop>` specifies the color and, if necessary, the percentage or length of the gradient. The colors are arranged according to the specification in `<side-or-corner>`.

## radial-gradient()

The `radial-gradient()` function is defined in the CSS recommendation <http://www.w3.org/TR/2012/CR-css3-images-20120417/#gradients> and is supported in the AH XSL Formatter in the `background-image` property.

### Syntax:

```
radial-gradient( [[ <shape> || <size> ] [ at <position> ]? , |  
    at <position>, ]? <color-stop>[, <color-stop> ]+)
```

<shape> = [ circle | ellipse ]

<size> = closest-side | farthest-side | closest-corner | farthest-corner |  
[ <length> | [ <length> | <percentage> ]{2} ]

<color-stop> = <color> [ <percentage> | <length> ]?

The arguments mean:

<shape> specifies the shape of the gradient, either as a circle (circle) or as an ellipse (ellipse). If <shape> is not specified then it becomes a circle, likewise if a single <length> is specified, otherwise an ellipse if two lengths are specified.

<size> specifies the size of the gradient. This size is specified by the keywords closest-side, farthest-side, closest-corner or farthest-corner.

<length> explicitly specifies the radius of the circle (circle). Negative values or percentage values are invalid.

<position> specifies the center position of a circle or ellipse. This position is denoted by keywords: at center (center), at top left (top left), at top right (top right), at bottom left (bottom left), at bottom right (bottom right).

[ <length> | <percentage> ]{2} explicitly specifies the size as an ellipse (ellipse). The first value is the horizontal radius, the second the vertical radius. Percentage values are relative with respect to the corresponding dimension of the gradient box. Negative values are invalid.

<color-stop> specifies the color and, if necessary, the percentage or length of the gradient.

repeating-linear-gradient()

The repeating-linear-gradient() function is defined in the CSS recommendation <http://www.w3.org/TR/2012/CR-css3-images-20120417/#gradients> and is supported in the AH XSL Formatter in the [background-image](#) property.

**Syntax:** is the same as for [linear-gradient\(\)](#)

### repeating-radial-gradient()

The repeating-radial-gradient() function is defined in the CSS recommendation <http://www.w3.org/TR/2012/CR-css3-images-20120417/#gradients> and is supported in the AH XSL Formatter in the `background-image` property.

**Syntax:** is the same as for `radial-gradient()`

### round()

The round() function returns an integer closest to the function's argument.

**Syntax:** numeric round(numeric)

### system-color()

The system-color() function returns a color with the corresponding name.

**Syntax:** color system-color(NCName)

### system-font() (AHF: not supported)

The system-font() function returns the characteristic of a system font. The first parameter is the name of the system font, the second – optionally – names the property that specifies the characteristic. For example: the expression `system-font(heading, font-size)` returns the font size of the font heading. This corresponds to the expression `font-size="system-font(heading)"`.

**Syntax:** object system-font(NCName, NCName?)

## 2 Extensions in the Antenna House XSL Formatter

### SHORT and TIGHT

The following sections cover system and option settings in the AH XSL Formatter, extension objects, extension properties, extended value ranges, and other extensions.

To use the Antenna House extensions, the corresponding namespace must be added to the namespace declarations for XSLT (xsl:) and XSL-FO (fo:) as follows:

```
.....  
xmlns:axf="http://www.antennahouse.com/names/XSL/Extensions"  
.....
```

### 2.1 AHF System Settings and Options

The AH XSL Formatter's system settings for formatting properties, font specifications, auxiliary systems, and output options are open and comprehensively documented. These system settings can be customized by the user to meet specific requirements. The following is an overview for the customization options.

The configuration for the formatter with the user-settings are summarized in the file AHFSettings.xml. All details for editing this file can be found in the Online Manual of the AH XSL Formatter under the title "Option Setting File" (ahf-optset.html). The descriptions of Antenna House's own constructs are taken from the Online Manual for the AH XSL Formatter.

<formatter-config>

This element forms the root element for the formatter configuration in the AHFsettings.xml file. The child elements concern formatter properties, font settings, output options for PDF, PostScript, SVG, CGM, InDesign, FrameMaker, and text output, math processing, XSLT preprocessing, and formatting analyses.

**Attributes:** none

**Child Elements:** <formatter-settings>, <font-settings>, <pdf-settings>, <ps-settings>, <svg-settings>, <text-settings>, <mathml-settings>, <cgm-settings>, <xslt-settings>, <analyzer-settings>

### 2.1.1 Formatter Settings

<formatter-settings>

These settings are used for the formatting.

**Attributes:** [abbreviation-character-count](#), [append-non-end-of-line-characters](#), [append-non-starter-characters](#), [auto-break-footnote](#), [auto-formatter-type](#), [avoid-orphan-single-word](#), [avoid-widow-words-cjk-punctuation](#), [axf-formatter-config](#), [baseline-mode](#), [bold-ratio](#), [border-medium-width](#), [border-thick-width](#), [border-thin-width](#), [boxshadow-resolution-dpi](#), [bpil](#), [bpil-limit-chars](#), [bpil-minimum-line-width](#), [bpil-penalty-hyphenation](#), [condensed-text-align-last](#), [default-CJK](#),

default-color, default-font-size, default-from-page-master-region,  
default-html-charset, default-lang, default-lang2,  
default-page-height, default-page-margin-bottom, default-page-margin-left,  
default-page-margin-right, default-page-margin-top, default-page-width,  
descendant-or-self-files, display-plaintext, double-hyphen-translineation  
error-if-overflow, except-non-end-of-line-characters,  
except-non-starter-characters, external-entity, family-name-syntax,  
fixed-width-space-treatment, hair-space-width, href-page-link, hyphen-min,  
hyphenation-keep-mode, hyphenation-TeX, HyphenationOption, ignore-  
certificate-error, inherit-svg-fill-color, intrusion-displace-mode,  
issue-scale-to-fit, jamo-ligature, justify-leader, justify-rowspan-height,  
keep-footnote-anchor, latin-ligature, no-disp-warnings,  
non-starter-ideographic-space, normal-line-height, normalize, oblique-skew,  
overflow-limit-block, overflow-limit-inline, printer-marks-line-length,  
printer-marks-line-width, printer-marks-zero-margin, PrinterOrientation,  
PscriptPassThrough, pair-kerning, punctuation-spacing,  
punctuation-trim, pxpi, responsive-svg-size, ruby-align,  
SeparatePrinterDuplexJob, small-caps-emulation-always,  
small-caps-emulation-size, small-caps-emulation-x-height,  
tab-overlap-treatment, table-auto-layout-limit, table-is-reference-area,  
text-autospace, text-autospace-width, text-decoration-mode,  
text-justify-mode, text-kashida-space, text-orientation-mode,  
textshadow-resolution-minimum-dpi, textshadow-resolution-pixel-per-em,  
textshadow-blur-cannot-embed-font, text-underline-mode, thin-space-width,  
two-pass-formatting, unicode-bidi-rev, unresolved-internal-  
destination, use-default-page-margin-XSL, vertical-block-width-mode,  
vertical-underline-side, watermark-font-family, watermark-font-style,  
watermark-font-weight, watermark-text, watermark2-font-family,  
watermark2-font-style, watermark2-font-weight, watermark2-text,  
white-space-collapse-mode, zwsp-mode

**Parent:** [<formatter-config>](#)

**Childs:** [<list-style-type>](#), [<quotationmark>](#),  
[<script-chars>](#), [<space-end-punctuation>](#),  
[<space-start-punctuation>](#), [<space-between-digit-and-punctuation>](#),  
[<space-between-punctuation-and-digit>](#), [<usercss>](#), [<css>](#),  
[<script-language-in-CJK>](#), [<multimedia>](#), [<GS1-128>](#), [<UAX50>](#),  
[<unbreakable-words>](#)

#### abbreviation-character-count

Specify the number of characters considered an abbreviation when a line break is inserted. See also [axf:abbreviation-character-count](#).

**Applies to:** [<formatter-settings>](#)

**Values:** [<number>](#)

**Default:** 3

#### append-non-end-of-line-characters

Specifies to append the non-end-of-line characters. White spaces are disregarded even though they are specified. See also [axf:append-non-end-of-line-characters](#).

**Applies to:** [<formatter-settings>](#)

**Values:** [<string>](#)

**Default:** none

#### append-non-starter-characters

Specifies to append the non-starter characters. White space characters are disregarded even though they are specified. See also [axf:append-non-starter-characters](#).

**Applies to:** [<formatter-settings>](#)

**Values:** [<string>](#)

**Default:** none



#### auto-break-footnote

Specifies whether to break the footnote automatically when `axf:footnote-max-height` is specified.

**Applies to:** `<formatter-settings>`

**Values:** true | false

**Default:** true

#### auto-formatter-type

When the detection of formatting type is set automatically and the decision of XHTML or HTML is unclear, the priority can be given by specifying the following values: html or xhtml.

**Applies to:** `<formatter-settings>`

**Values:** html | xhtml

**Default:** html

#### avoid-orphan-single-word

Polish, Hungarian, Czech, etc. are not allowed to have single letter words at the end of lines. Specify such languages separated by commas. You can cancel the process by specifying an empty string or false. Specify true to apply to all languages.

**Applies to:** `<formatter-settings>`

**Values:** pol | hun | ces | true | false | empty string

**Default:** pol, hun, ces

#### avoid-widow-words-cjk-punctuation

Specifies the initial value when `axf:avoid-widow-words-cjk-punctuation="auto"` is specified. You can specify false, true, or any string.

**Applies to:** `<formatter-settings>`

**Values:** false | true | `<string>`

**Default:** false

#### axf-formatter-config

Specifies whether the use of `<axf:formatter-config>` is permitted by a value of true or false. When false is specified, `<axf:formatter-config>` will be ignored.

**Applies to:** `<formatter-settings>`

**Values:** true | false

**Default:** true

#### baseline-mode

In AH Formatter V6, there are some changes from XSL Formatter V4 in deciding the baseline in the text with different scripts like a mixture of Western and Japanese. The following values can be specified.

4. Operates the same as XSL Formatter V4.

5. Adds the improved operation by AH Formatter V5.

6. Adds the improved operation by AH Formatter V6.

In addition, when `baseline-mode="4"` is specified, the `text-altitude` and `text-depth` properties are invalid.

**Applies to:** `<formatter-settings>`

**Values:** 4 | 5 | 6

**Default:** 6

#### bold-ratio

Specifies how thick a font should be displayed when bold is specified for fonts that do not have bold in the font family. When 1.0 is specified, only the amount decided by the system is made thicker. For instance, when 1.5 is specified, it is drawn 1.5 times thicker. When 0.0 or less is

specified, it is considered 1.0 thick. This setting is effective with PDF Output and PostScript® Output.

**Applies to:** <formatter-settings>

**Values:** <number>

**Default:** 1.0

#### border-medium-width

Specifies the default border width in medium style with the real type numerical value.

**Applies to:** <formatter-settings>

**Values:** <length>

**Default:** 3pt

#### border-thick-width

Specifies the default border width in thick style with the real type numerical value.

**Applies to:** <formatter-settings>

**Values:** <length>

**Default:** 5pt

#### border-thin-width

Specifies the default border width in thin style with the real type numerical value.

**Applies to:** <formatter-settings>

**Values:** <length>

**Default:** 1pt

### boxshadow-resolution-dpi

Specifies the resolution of the image when setting the blurring in box-shadow with the unit of dpi. Values from 70 to 1440 are effective. If it is out of range, the default value is adopted.

**Applies to:** <formatter-settings>

**Values:** from 70 to 1440

**Default:** 108

### bpil

Specifies a language or script to apply Knuth-Plass Breaking Paragraphs into Lines [BPIL] to the line breaking algorithm by separating each code with a space. The following can be specified.

When empty, it does not apply to any language.

- Language code defined in ISO 639 or ISO 639-2
- Code formed by combining the language code and the country code defined in ISO 3166 by a hyphen.
- Script code defined in ISO 15924

When a script is specified, it is considered that the language for which it is a representative script has been specified.

See also the notes on Line Breaking in the Technical Notes of the Online Manual.

**Applies to:** <formatter-settings>

**Values:** see above

**Default:** Latn Grek Cyrl Armn Geor

### bpil-limit-chars

Specifies the maximum number of characters to which [BPIL] applies. Approximately more than this number of blocks will not apply [BPIL]. The value less than 1000 cannot be specified.

**Applies to:** <formatter-settings>

**Values:** <number>

**Default:** 50000

#### bpil-minimum-line-width

Specifies the minimum line width to apply [BPIL] in units of em. The value less than 1 is considered 1.

**Applies to:** <formatter-settings>

**Values:** <number>

**Default:** 8

#### bpil-penalty-hyphenation

Specifies the frequency of hyphenation in [BPIL] with a value of 0 to 1000. Hyphenation is more likely to occur with smaller values.

**Applies to:** <formatter-settings>

**Values:** <number>

**Default:** 100

#### condensed-text-align-last

Specifies the initial value when `axf:condensed-text-align-last` = "auto" is specified. You can specify false, true or justify.

**Applies to:** <formatter-settings>

**Values:** false | true | justify

**Default:** justify

#### default-CJK

Specifies the language (such as jpn or kor) to be applied when a script is ambiguous for CJK. Although the default value is determined from the operating environment, Japanese language is assumed when the operating environment is other than CJK.

**Applies to:** <formatter-settings>

**Values:** chi | jpn | kor

**Default:** jpn

#### default-color

Specifies the default color of text with the format of #RRGGBB. You can also specify the color name, [rgb\(\)](#) or [rgb-icc\(\)](#). However, RGB cannot be omitted with [rgb-icc\(\)](#).

**Applies to:** [<formatter-settings>](#)

**Values:** colors with the format of #RRGGBB

**Default:** #000000 (schwarz)

#### default-font-size

Specifies the default font size with the real type numerical value.

**Applies to:** [<formatter-settings>](#)

**Values:** [<length>](#)

**Default:** 10pt

#### default-from-page-master-region

In XSL 1.1, there is no compatibility with XSL 1.0 in the method of evaluating [writing-mode](#) or [reference-orientation](#). If true is specified, it becomes the same operation as the following are specified for [<fo:page-sequence>](#).

```
writing-mode="from-page-master-region()"
```

```
reference-orientation="from-page-master-region()"
```

For more details, see [from-page-master-region\(\)](#).

**Applies to:** [<formatter-settings>](#)

**Values:** true | false

**Default:** false

### default-html-charset

Specifies the default encoding of HTML. This setting is applied to HTML with unknown encoding. When the setting is in HTML, or the encoding can be recognized by BOM, they are adopted. See also encoding of [<text-settings>](#). Case insensitive.

**Applies to:** [<formatter-settings>](#)

**Values:** see [encoding](#)

**Default:** UTF-8

### default-lang

Specifies the default language code. The language code follows ISO 639-2. There is no default value. `default-lang` specifies the language when FO doesn't have the language specification. This is outputted as the language information to the PDF. The default value of `default-lang` is empty. At this time, if the language is not specified for FO etc., the language information is not outputted to the PDF. The language specified to [default-lang2](#) is adopted when `default-lang` is empty.

**Applies to:** [<formatter-settings>](#)

**Values:** code according to ISO639-2

**Default:** none

### default-lang2

Specifies the language actually adopted when [default-lang](#) is empty. When `default-lang2` is empty, it depends on the locale of the system.

**Applies to:** [<formatter-settings>](#)

**Values:** code according to ISO639-2

**Default:** eng

### default-page-height

Specifies the default page height with the real type numerical value.

**Applies to:** <formatter-settings>

**Values:** <length>

**Default:** 297mm (DIN A4 page height)

default-page-margin-bottom

Specifies a default page margin bottom with the real type numerical value. A percent value is considered a ratio out of the page width.

**Applies to:** <formatter-settings>

**Values:** <length> | <percentage>

**Default:** 10%

default-page-margin-left

Specifies a default page margin left with the real type numerical value. A percent value is considered a ratio out of the page height.

**Applies to:** <formatter-settings>

**Values:** <length> | <percentage>

**Default:** 10%

default-page-margin-right

Specifies a default page margin right with the real type numerical value. A percent value is considered a ratio out of the page height.

**Applies to:** <formatter-settings>

**Values:** <length> | <percentage>

**Default:** 10%

default-page-margin-top

Specifies a default page margin top with the real type numerical value. A percent value is considered a ratio out of the page width.

**Applies to:** <formatter-settings>

**Values:** <length> | <percentage>



**Default:** 10%

#### default-page-width

Specifies the default page width with the real type numerical value.

**Applies to:** `<formatter-settings>`

**Values:** `<length>`

**Default:** 210mm (DIN A4 page width)

#### descendant-or-self-files

When true is specified, the location of the external files that can be read is restricted to be within the same directory as the FO or HTML, or within a subdirectory of it. It isn't restricted by http: or https:. If disable-network is specified, all network access such as http: or https: are also restricted in addition to it.

**Applies to:** `<formatter-settings>`

**Values:** true | false

**Default:** false

#### display-alttext

Specifies whether to display an alternate text by `axf:alttext` or the alt attribute when there is no image in `<fo:external-graphic>` or HTML `<img>`. When true is specified, an alternate text is displayed. When false is specified and the `src` attribute is specified, an alternate image is displayed.

**Applies to:** `<formatter-settings>`

**Values:** true | false

**Default:** false

## double-hyphen-translineation

In Portuguese hyphenation, a hyphen is also placed at the start of the line when a line break occurs at a hyphen. With double-hyphen-translineation, specify comma-separated languages for such hyphenation. If you specify empty or false, you can cancel the process of placing a hyphen at the start of the line as well. It is invalid when `hyphenate="false"` is specified. [↗ axf:double-hyphen-translineation](#)

**Applies to:** <formatter-settings>

**Values:** comma-separated languages for such hyphenation

**Default:** por

## error-if-overflow

Specifies whether to perform the same check as `error-if-overflow` and report an overflow error when `overflow="auto"` is specified.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** false

## except-non-end-of-line-characters

Specifies the except-non-end-of-line characters. This setting will be ignored even if white spaces are specified. See also the extension property [axf:except-non-end-of-line-characters](#).

**Applies to:** <formatter-settings>

**Values:** <string>

**Default:** none

## except-non-starter-characters

Specifies the except-non-starter characters. This setting will be ignored even if white spaces are specified. See also the extension property [axf:except-non-starter-characters](#).

**Applies to:** `<formatter-settings>`

**Values:** `<string>`

**Default:** none

#### external-entity

Specifies whether the external reference is allowed or not with `<!ENTITY>` of XML (FO, XHTML, SVG, MathML etc.) to be formatted.

Note that it does not work on external XSLT processor called from AH Formatter V7.2. See also [section 2.1.9](#).

**Applies to:** `<formatter-settings>`

**Values:** false | true

**Default:** true

#### family-name-syntax

Specify whether to strictly check the syntax of the value of font-family.

When strict is specified, it is evaluated exactly as [Font family: the font-family property](#).

Until AH Formatter V6.5, only a pretty loose check has been done, so even it is strictly an error, it does not become an error.

For example, the following setting is strictly an error:

```
font-family="Abc 123"
```

You must specify it as follows:

```
font-family="'Abc 123'"
```

Specify loose if you want to loosen the check. If auto is specified, it is considered strict in CSS and it is considered loose in FO.

**Applies to:** `<formatter-settings>`

**Values:** strict | loose | auto

**Default:** auto

## fixed-width-space-treatment

Fonts seldom contain glyphs for characters, such as EM SPACE (U+2003) etc., that represent white space with fixed width. At that time, a substitution glyph is displayed and the white space is not shown correctly. `fixed-width-space-treatment` specifies the treatment of a fixed white space.

- `false`: Does nothing.
- `true`: Inserts a white space when there is no glyph in the font. When there is a glyph in the font, it will be used.
- `always`: Always inserts a white space without depending on the font. Even if there is a glyph in the font, it will not be used.

The target characters and their widths are as follows (in units of em):

U+2000 EN QUAD: 1/2

U+2001 EM QUAD: 1

U+2002 EN SPACE: 1/2

U+2003 EM SPACE: 1

U+2004 THREE-PER-EM SPACE: 1/3

U+2005 FOUR-PER-EM SPACE: 1/4

U+2006 SIX-PER-EM SPACE: 1/6

U+2007 FIGURE SPACE: The same width of the figure “0”.

U+2008 PUNCTUATION SPACE: The same width of the punctuation period “.”.

U+2009 THIN SPACE: Depends on the setting of `thin-space-width`.

U+200A HAIR SPACE: Depends on the setting of `hair-space-width`.

U+205F MEDIUM MATHEMATICAL SPACE: 4/18

**Applies to:** `<formatter-settings>`

**Values:** `true` | `false` | `always`

**Default:** `true`

### hair-space-width

Specifies the character width of HAIR SPACE (U+200A) in units of em, when `fixed-width-space-treatment="true"` is specified.

**Applies to:** `<formatter-settings>`

**Values:** `<number>`

**Default:** 0.1

### href-page-link

Unlike FO, HTML has id value that is not NCName, so id like "123" is allowed. Therefore, when `<a href="#123">` is specified, the id "123" is the target. When `href-page-link="true"` is specified, it will be considered a page number and easily move to the specified page in HTML.

**Applies to:** `<formatter-settings>`

**Values:** true | false

**Default:** false

### hyphen-min

Specifies whether to enable `<hyphen-min>` in the Hyphenation Exception Dictionary (see the notes on Hyphenation of the Online Manual).

- false: `<hyphen-min>` is ignored.
- true: The value of `<hyphen-min>` is the value when `hyphenation-remain-character-count="auto"` or `hyphenation-push-character-count="auto"` in XSL is specified. It is invalid when any property other than auto is specified for these properties.
- without-exceptions: Same as true, but words specified in `<exceptions>` in the exception dictionary are excluded.

**Applies to:** `<formatter-settings>`

**Values:** true | false | without-exceptions

**Default:** false

## hyphenation-keep-mode

Specifies the processing method when the word at the end of the page (column) is hyphenated by `hyphenation-keep="page"`, etc. word pushes out the word to the next page (column). line pushed out that line to the next page (column). You need to be careful when you use word. See the notes on Hyphenation of the Online Manual. However, in `<fo:float>` where the value of `axf:float-x` is other than none and the value of `axf:float-y` is none, it is always considered line.

**Applies to:** `<formatter-settings>`

**Values:** word | line

**Default:** word

## hyphenation-TeX

When `HyphenationOption="true"` is specified, enumerates a comma-delimited list of languages that you want to hyphenate using a TeX dictionary, e.g.: `hyphenation-TeX="ces,deu"`.

**Applies to:** `<formatter-settings>`

**Values:** short names for TeX dictionaries

**Default:** none

## HyphenationOption

Specifies whether to hyphenate words by using the custom processing that supports over 40 languages or to use TeX hyphenation dictionaries. If `false` is specified, words will be hyphenated by using TeX dictionaries. If so, only the languages that have a dictionary can be hyphenated.

**Applies to:** `<formatter-settings>`

**Values:** true | false

**Default:** true

### inherit-svg-fill-color

In SVG, when “fill” in the root element is omitted, the value of “color” specified in the upper XML is inherited.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** false

### intrusion-displace-mode

In AH Formatter V6, there are some changes from AH Formatter V5 in the behavior of the [intrusion-displace](#) property. Specify when you want to make it the same as V5.

5. Operates the same as AH Formatter V5.

6. Adds the modified operation by AH Formatter V6.

**Applies to:** <formatter-settings>

**Values:** 5 | 6

**Default:** 6

### issue-scale-to-fit

Specifies whether to report the scale-change ratio when the scale ratio of the image is changed by scale-to-fit/scale-down-to-fit/scale-up-to-fit with the value of true or false. If true is specified, the level 1 is reported.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** false

### jamo-ligature

Specifies whether to process the ligature of Hangul Jamo (U+1100 to U+11FF) with the value of true or false. If true is specified, processes the ligature of Hangul Jamo. If false, does nothing. This setting affects the

value of the extension property `axf:ligature-mode="auto"`. This ligature uses jamo of GSUB feature in the OpenType font.

**Applies to:** `<formatter-settings>`

**Values:** true | false

**Default:** true

#### justify-leader

Although the leader functions in the justified line, the leader itself is not justified. `leader-alignment="none"` specifies whether the leader itself is justified or not when the contents are only the text, by `leader-pattern="dots"` or `leader-pattern="use-content"`. If true is specified, the space may be generated between characters in the leader, the leader may become irregular against the other leaders. However, the space at the end of the leader will disappear.

**Applies to:** `<formatter-settings>`

**Values:** true | false

**Default:** false

#### justify-rowspan-height

When there is a cell with rowspan and the height of the cell is high, specifies whether the height of each row occupied by the cell should be as even as possible. When there is a row or cell with height specified, or when there is a cell whose text direction is rotating, it is processed so that only the height of the row after that row is even.

**Applies to:** `<formatter-settings>`

**Values:** true | false

**Default:** false



### keep-footnote-anchor

When a block including a footnote anchor does not fit within the page, the lines up to the dividable position after the anchor are sent to the previous page.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** true

### latin-ligature

Specifies whether to process the ligature in European languages with the value of true or false. If true is specified, the ligature will be processed. If false is specified, it will not be processed. This setting affects the value of `axf:ligature-mode="auto"`.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** true

### no-disp-warnings

Suppress Error Messages that are output on GUI or Command-line. Specifies by enumerating the error code in decimal or hexadecimal as `no-disp-warnings="10754 0x320D"`. No error message corresponding to the specified error code is output. It is invalid for errors where the processing is interrupted.

**Applies to:** <formatter-settings>

**Values:** <string>

**Default:** none

### non-starter-ideographic-space

Specifies whether to treat the ideographic space as a non-starter character. See also Treatment of full-width white space in Technical Notes of the Online Manual.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** true

### normal-line-height

Specifies the default line height with the real type numerical value. A unit is not specified. The value means the ratio to the font size. The initial value is 1.2. Therefore, in case the font size is 10pt, the line height becomes 12pt.

**Applies to:** <formatter-settings>

**Values:** <number>

**Default:** 1.2

### normalize

Specifies the method of the normalization to be adopted when `axf:normalize="auto"` is specified. The following values (case insensitive) can be specified:

- none: Does not normalize text.
- nfc: Performs NFC.
- nfd: Performs NFD.
- nfkc: Performs NFKC.
- nfkd: Performs NFKD.

**Applies to:** <formatter-settings>

**Values:** none | nfc | nfd | nfkc | nfkd

**Default:** nfc

## oblique-skew

Specifies the amount of the inclination when using `font-style="oblique"` or `"backslant"`. When 0 or less is specified, it is considered the system default. The font is inclined by the system default whenever there is no italic in the font when using `font-style="italic"`. This setting is effective in the following outputs:

- Graphical User Interface
- PDF Output
- PostScript® Output
- XPS Output

**Applies to:** `<formatter-settings>`

**Values:** `<integer>`

**Default:** 0

## overflow-limit-block

Specifies the default value of `axf:overflow-limit-block`.

**Applies to:** `<formatter-settings>`

**Values:** `<length>`

**Default:** 0pt

## overflow-limit-inline

Specifies the default value of `axf:overflow-limit-inline`.

**Applies to:** `<formatter-settings>`

**Values:** `<length>`

**Default:** 0pt

## printer-marks-line-length

Specifies the length of the printer marks. See Printer Marks in the XSL/CSS Extensions of the Online Manual.

**Applies to:** `<formatter-settings>`

**Values:** <length>

**Default:** 10mm

#### printer-marks-line-width

Specifies the width of the printer marks. See Printer Marks in the XSL/CSS Extensions of the Online Manual.

**Applies to:** <formatter-settings>

**Values:** <length>

**Default:** 0.24pt

#### printer-marks-zero-margin

Specifies the margin between the page and the printer marks when `axf:bleed` is 0.

**Applies to:** <formatter-settings>

**Values:** <length>

**Default:** 3mm

#### PrinterOrientation

When the paper is placed in landscape in the PS Printer, there may be a case that the printer rotate-output the line and EPS incorrectly because some printers cannot get information. Possible to correct the rotation by specifying one of the following values (the value should be anti-clockwise rotation degree):

- auto
- 0
- 90
- 270

This setting is effective only with Windows version.

**Applies to:** <formatter-settings>

**Values:** auto | 0 | 90 | 270

**Default:** auto

#### PscriptPassThrough

Possible to makes Pass Through output invalid when outputting to PS printer. If true is specified, Pass Through output is executed. If false is specified, Pass Through output is not executed but the output is executed only by GDI operator. This setting is effective only with Windows version.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** true

#### pair-kerning

Specifies whether to process the pair kerning with the value of true or false. If true is specified, the ligature will be processed. If false is specified, it will not be processed. This setting affects the value of `axf:kerning-mode="auto"`.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** true

#### punctuation-spacing

Specifies the space width between the adjacent Japanese full width characters with the percentage value. The value means the ratio to the font size. This setting affects the value of `axf:punctuation-spacing="auto"` in extended FO.

**Applies to:** <formatter-settings>

**Values:** <percentage>

**Default:** 50%

## punctuation-trim

When Japanese full width characters (punctuation marks and brackets) are used in succession or come at the start of a line, you can specify whether to trim the letter spacing or keep the same letter spacing with the value of `true` or `false`. If the value is `true`, the letter spacing will be tracked narrow. If the value is `false`, it will be the same as that of other full width characters. This setting affects the values of `axf:punctuation-trim="auto"` and `axf:text-justify-trim="auto"` in extended FO.

**Applies to:** `<formatter-settings>`

**Values:** `true` | `false`

**Default:** `true`

## pxpi

In XSL or CSS, you can specify (pixel) as a unit of measurement. `pxpi` specifies the coefficient, which converts the value of the specified `px`, as “the number of pixels per inch” (1 inch = 2,54cm) when formatting. It's specified with the real type numerical value.

**Applies to:** `<formatter-settings>`

**Values:** `<integer>`

**Default:** `96`

## responsive-svg-size

Specifies whether the size matches the `viewBox` setting when the width and height of the root element are omitted in SVG. The following values can be specified:

- `reference`: It is considered `width="100%" height="100%"` according to the SVG specification.
- `viewBox`: If `viewBox` is specified as the root element, it is considered its size.

**Applies to:** <formatter-settings>

**Values:** reference | viewBox

**Default:** reference

#### ruby-align

Specifies the arrangement when `axf:ruby-align="auto"` is specified.

When nothing or auto is specified, it is considered space-around center.

**Applies to:** <formatter-settings>

**Values:** auto

**Default:** none

#### SeparatePrinterDuplexJob

Specifies whether to batch print without interrupting a job for printing, even if the switching of the printer between simplex/duplex modes is set when `axf:printer-duplex` is specified. If true is specified, the file is split and outputted, if false is specified the file is batch printed.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** true

#### small-caps-emulation-always

Specifies whether to always emulate small-caps. When true is specified, it always emulates and does not use the font information.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** false

#### small-caps-emulation-size

Specifies the scale-down ratio when the font does not have small-caps when `font-variant="small-caps"` is specified.

**Applies to:** [<formatter-settings>](#)

**Values:** [<percentage>](#)

**Default:** 70%

#### small-caps-emulation-x-height

If the font has x-height and cap-height, the emulation magnification of small-caps is x-height/cap-height. If the font does not have them, it will be [small-caps-emulation-size](#).

**Applies to:** [<formatter-settings>](#)

**Values:** true | false

**Default:** true

#### tab-overlap-treatment

Specifies a behavior when tab alignment makes letters overlapped, by selecting from either ignore-tab or next-tab. See [axf:tab-overlap-treatment](#).

**Applies to:** [<formatter-settings>](#)

**Values:** ignore-tab | next-tab

**Default:** ignore-tab

#### table-auto-layout-limit

When [table-layout](#)="auto" is specified, it is necessary to look ahead and read the table to decide the width of column. The number of row to read ahead can be limited because it takes a long time to read all rows in a too huge table. After reading ahead up to the number of rows specified here, the width of column is decided. If 0 is specified, all rows are read, and then the width of column is decided. For more details, see Table Auto Layout in the Technical Notes of the Online Manual.

**Applies to:** [<formatter-settings>](#)



**Values:** <integer>

**Default:** 100

#### table-is-reference-area

In XSL 1.1, there is no compatibility with XSL 1.0 about whether to make <fo:table> a reference area. If true is specified, fo:table will be made a reference area and its operation will be the same as XSL 1.0. For more details, see Incompatibility of fo:table in the Technical Notes of the Online Manual.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** false

#### text-autospace

Specifies whether to insert spaces surrounding ideographic glyphs to make them look better with the value of true or false, in the document ideographic and non-ideographic glyphs are mixed. If the value is true, a space will be inserted to make them look better. If the value is false, a space won't be inserted. This setting affects the value of `axf:text-autospace="auto"` in extended FO.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** true

#### text-autospace-width

Specifies the space width surrounding ideographic glyphs characters with the percentage value. The value means the ratio to the font size. This setting affects the value of `axf:text-autospace-width="auto"` in extended FO.

**Applies to:** <formatter-settings>

**Values:** <percentage>

**Default:** 25%

#### text-decoration-mode

Specifies how much the underline, strikethrough and overline exceed the length of a word.

0. Do not exceed the word length.
1. Exceed half-length of the space between words.
2. Do not exceed the start edge of a word, but exceed the end edge of a word by the full space between words.

**Applies to:** <formatter-settings>

**Values:** 0 | 1 | 2

**Default:** 1

#### text-justify-mode

In AH Formatter V5 or later, there are some changes from XSL Formatter V4 in trimming a line. Specify the value when you want to make it the same operation as V4. This adjusts the initial value when `axf:text-justify-trim="auto"` is specified. The following values can be specified:

4. Operates the same as XSL Formatter V4. That is, it is considered that ideograph and inter-word are specified.
5. Adds the improved operation by AH Formatter V5.

**Applies to:** <formatter-settings>

**Values:** 4 | 5

**Default:** 5

## text-kashida-space

Specifies the percentage of the Kashida in Arabic justification. The value indicates the percentage of white space and Kashida. If the value is 0%, Kashida is not inserted and only the white space expands as well as the normal justification. If the value is 100%, Kashida is inserted as much as possible. This setting affects the value of `afx:text-kashida-space="auto"` in extended FO.

**Applies to:** `<formatter-settings>`

**Values:** `<percentage>`

**Default:** 100%

## text-orientation-mode

Specifies whether [UAX#50: Unicode Vertical Text Layout](#) is taken into consideration by the value of `afx:text-orientation` when rendering alphanumeric characters, etc. to be upright in vertical writing mode with the following values:

5. UAX#50 is not taken into consideration.
6. SVO and MVO are taken into consideration.
7. In addition to 6, `afx:text-orientation="auto"` is treated as "mixed".

Note:

- The layout of SVO/MVO do not match the one defined in UAX#50. See also Glyphs in Vertical Text in the Technical Notes of the Online Manual.
- SVO is applied to the text with `afx:text-orientation="upright"` specified in FO or `text-orientation:upright`; specified in CSS.
- MVO is applied to the text with `afx:text-orientation="mixed"` specified in FO or `text-orientation:mixed`; specified in CSS.
- This setting does not work with AH Formatter V7.2 Lite. It is always considered 5.

**Applies to:** `<formatter-settings>`

**Values:** 5 | 6 | 7

**Default:** 6

textshadow-resolution-minimum-dpi

Specifies the minimum value of the resolution of the image when setting the blur in `text-shadow` with the unit of dpi. Only the integer value of greater than or equal to 1 is effective. Fractions below decimal point are rounded off to the nearest integer, if the value is less than 1, the default value is adopted.

**Applies to:** `<formatter-settings>`

**Values:** `<integer>`

**Default:** 108

textshadow-resolution-pixel-per-em

Specifies the resolution of the image when setting the blur in `text-shadow`. Specifies the resolution by the number of pixels per 1 font size. If the back-calculated dpi value is smaller than `textshadow-resolution-minimum-dpi`, the latter setting will take priority. Only the integer value of greater than or equal to 1 is effective. Fractions below decimal point are rounded off to the nearest integer, if the value is less than 1, the default value is adopted.

**Applies to:** `<formatter-settings>`

**Values:** `<integer>`

**Default:** 100

textshadow-blur-cannot-embed-font

Selects whether to set the blur against the font that is not allowed to be embedded with the value of true or false in `text-shadow`. If true is specified, sets the blur.

**Applies to:** `<formatter-settings>`

**Values:** true | false

**Default:** false

#### text-underline-mode

Some improved changes have been added for the position of underline and overline with AH Formatter V6. Specify when you want to make it the same as V5.

5. Operates the same as AH Formatter V5.

6. Adds the improved operation by AH Formatter V6.

**Applies to:** <formatter-settings>

**Values:** 5 | 6

**Default:** 6

#### thin-space-width

Specifies the character width of THIN SPACE (U+2009) in units of em, when `fixed-width-space-treatment="true"` is specified.

**Applies to:** <formatter-settings>

**Values:** <number>

**Default:** 0.2

#### two-pass-formatting

When formatting a huge document with a large amount of unresolved <fo:page-number-citation>, a large amount of memories are consumed because the cancellation of the page information is impossible.

Therefore, the limit is caused in the number of pages to format. This parameter solves that problem by making the formatting two passes. Although its processing time may be increased, only the page number information which should be solved will consume the memory and the memory consumption will be extremely decreased. This setting is invalid with CSS formatting. This setting is invalid with GUI. See

Formatting Large Document in the Technical Notes of the Online Manual.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** false

#### unicode-bidi-rev

Specifies the revision of [UAX#9: Unicode Bidirectional Algorithm](#) that AH Formatter conforms to. A value greater than or equal to 37 is considered 41. If the value is less than 37, it follows the algorithm compatible with V6.6 (about revision 27). At that time, the following control characters cannot be handled correctly. U+2066 is considered U+202D, U+2067 is considered U+202E and U+2069 is considered U+202C for each. If no value is set, the latest revision supported by AH Formatter is used. See also BIDI Algorithm Implementation Restrictions in the Technical Notes of the Online Manual for implementation restrictions when not V6.6 compatible.

- U+2066: LEFT-TO-RIGHT ISOLATE
- U+2067: RIGHT-TO-LEFT ISOLATE
- U+2068: FIRST STRONG ISOLATE
- U+2069: POP DIRECTIONAL ISOLATE

**Applies to:** <formatter-settings>

**Values:** U+2066 | U+2067 | U+2068 | U+2069

**Default:** none

#### use-default-page-margin-XSL

Specifies whether [default-page-margin-bottom](#), [default-page-margin-top](#), [default-page-margin-left](#) and [default-page-margin-right](#) are adopted or not when there is no margin specification in <fo:simple-page-master> in XSL.

**Applies to:** <formatter-settings>

**Values:** true | false

**Default:** false

#### vertical-block-width-mode

The behavior of the auto value of the width of vertical-text block within horizontal-text flow (or the height of horizontal-text block within vertical-text flow) is changed with AH Formatter V6. Specify when you want to make it the same as V5.

5. Operates the same as AH Formatter V5. The width of vertical-text block is given by the width of the outer area.

6. Adds the improved operation by AH Formatter V6. The width of vertical-text block shrinks to fit the content.

**Applies to:** <formatter-settings>

**Values:** 5 | 6

**Default:** 6

#### vertical-underline-side

In the XSL specification, there is no description about the underline in vertical writing mode. The vertical-underline-side property is an option which specifies whether to place the underline in vertical writing mode on the right side or on the left side. If left or right is specified, the underline is placed on the left or on the right. If auto is specified, the underline is placed on the right side when the [language](#) property is Japanese (jpn) or Korean (kor). The underline is placed on the left side when the language property is other than Japanese (jpn) or Korean (kor). If there is no language properties specified, it depends on the [default-CJK](#) language setting. This setting affects the value of the extension property, `axf:vertical-underline-side="auto"`.

**Applies to:** <formatter-settings>

**Values:** auto | left | right

**Default:** auto

#### watermark-font-family

Specifies the font family to the character string which you set to [watermark-text](#).

**Applies to:** [<formatter-settings>](#)

**Values:** [<family-name>](#) | [<generic-family>](#)

**Default:** sans-serif

#### watermark-font-style

Specifies the font style to the character string which you set to [watermark-text](#). Possible to specify normal or italic.

**Applies to:** [<formatter-settings>](#)

**Values:** normal | italic

**Default:** normal

#### watermark-font-weight

Specifies the font weight to the character string which you set to [watermark-text](#). Possible to specify normal, bold or the numerical value from 1 to 1000.

**Applies to:** [<formatter-settings>](#)

**Values:** normal | bold | [<integer>](#) from 1 to 1000

**Default:** normal

#### watermark-text

Displays the specified watermark text on each page. Possible to make it multiple lines by delimiting with the line feed “&#10;”. You will need to specify an appropriate according to the text you specify. Confirm it by outputting PDF. In addition, complex scripts such as Thai and Arabic



cannot be specified. The text that cannot be outputted by a single font cannot be specified..

**Applies to:** <formatter-settings>

**Values:** <string>

**Default:** none

#### watermark2-font-family

Specifies the font family to the character string which you set to [watermark2-text](#). If not specified, the default value is the same as [watermark-font-family](#).

**Applies to:** <formatter-settings>

**Values:** <family-name> | <generic-family>

**Default:** [watermark-font-family](#)

#### watermark2-font-style

Specifies the font style to the character string which you set to [watermark2-text](#). Possible to specify normal or italic.

**Applies to:** <formatter-settings>

**Values:** normal | italic

**Default:** normal

#### watermark2-font-weight

Specifies the font weight to the character string which you set to [watermark2-text](#). Possible to specify normal, bold or the numerical value from 1 to 1000.

**Applies to:** <formatter-settings>

**Values:** normal | bold | <integer> from 1 to 1000

**Default:** normal

### watermark2-text

Displays the specified watermark text on each page. You will need to specify an appropriate [watermark2-font-family](#) according to the text you specify. Confirm it by outputting PDF. In addition, complex scripts such as Thai and Arabic cannot be specified. The text that cannot be outputted by a singl

**Applies to:** [<formatter-settings>](#)

**Values:** [<string>](#)

**Default:** none

### white-space-collapse-mode

The operation of [white-space-collapse](#) was corrected with AH Formatter V7. Specify as follows when you want the same operation as V6.

6. Operates the same as AH Formatter V6.

7. Adds the modified operation by AH Formatter V7.

**Applies to:** [<formatter-settings>](#)

**Values:** 6 | 7

**Default:** 7

### zwsp-mode

The operation of ZERO WIDTH SPACE (U+200B) was corrected with AH Formatter V6. It's compatible with V6 by default. Specify as follows when you want the same operation as V5.

6. Operates the same as AH Formatter V5.

7. Adds the modified operation by AH Formatter V6.

**Applies to:** [<formatter-settings>](#)

**Values:** 5 | 6

**Default:** 6

## <list-style-type>

Specifies the character to use by list-style-type.

**Parent:** <formatter-settings>

**Attributes:** box | check | circle | diamond | disc | hyphen | square

**Values:** <character>

**Defaults:**

- box: U+25AB
- check: U+2713
- circle: U+25E6
- diamond: U+2666
- disc: U+2022
- hyphen: U+2043
- square: U+25AA

## <quotationmark>

Changes the handling of Quotation Mark. Specify the language code for language, the character code of quotation marks for code, and specify one of the QU | OP | CL for quotetype. Only Western languages can be specified for the language code. CJK etc. cannot be specified.

**Parent:** <formatter-settings>

**Attributes:** language | code | quotetype

**Values:** see above

**Defaults:** none

`<script-chars>`

`<space-end-punctuation>`

`<space-start-punctuation>`

`<space-between-digit-and-punctuation>`

`<space-between-punctuation-and-digit>`

These objects are used to specify certain character and space mappings, especially for Asian languages. For details see the Online Manual of the AH XSL formatter (file: ahf-optset.html).

**Parent:** `<formatter-settings>`

`<usercss>`

Specifies the CSS user stylesheet you want to add by `<css>`.

**Parent:** `<formatter-settings>`

**Child:** `<css>`

`<css>`

Specifies the path of the CSS user stylesheet.

**Parent:** `<usercss>`

**Attribute:** path

**Default:** none

`<script-language-in-CJK>`

When the script specified to the script attribute appears in the sentence of CJK languages, the character string of the script is considered the language that is specified to the language attribute. For example:

```
<script-language-in-CJK script="Latn" language="eng"/>
```

The Latn character string that appears in Japanese or Chinese sentences can be recognized as English. If `hyphenate="true"` is specified, the hyphenation can be processed by considering this part as English. The CJK languages cannot be specified to language. When nothing is

specified to the language attribute, the language specification to the script attribute is canceled.

**Parent:** <formatter-settings>

**Attributes:** script, language

**Values:** see above

**Defaults:** none

#### <multimedia>

When specifying multimedia, such as audio or video as graphics, the setting of **content-type** is required. AH Formatter may sometimes not automatically recognize if a content-type other than “audio/\*” or “video/\*” formats indicates it is multimedia. For such content-type, specify audio, video or flash explicitly as follows:

```
<multimedia flash="application/x-shockwave-flash"/>
```

By default, “audio/\*” is considered as audio, “video/\*” as video, “application/x-shockwave-flash” as Flash.

**Parent:** <formatter-settings>

**Attributes:** video | audio | flash

**Defaults:** see above

#### <GS1-128>

Registers the format of application identifier (AI) of GS1-128. Some formats of AI has been already registered, but you can specify when you change the format or the format is not registered. AI is a number with 2 to 4 digits. AI starting from 0 should be 2 digits. The last digit can be set as “\*” if AI is a 3 or 4 digit number. For instance, AI="380\*" indicates 3800 to 3809. The following formats can be specified to the format attribute:

- n3: 3-digit numbers
- x3: 3-digit arbitrary characters

- n-10: Numbers with greater than or equal to 1 and less than or equal to 10 digits.
- x3-10: Arbitrary characters with greater than or equal to 3 and less than or equal to 10 digits.

For example, specify as follows:

```
<GS1-128 AI="380*" format="n-15"/>
```

For details see the Online Manual of the AH XSL formatter (file: ahf-barcode.html#GS1-128).

**Parent:** [<formatter-settings>](#)

**Attributes:** AI | format

**Values:** see above

**Defaults:** none

**<UAX50>**

Specifies the code point to code you change. The code point can be specified as follows:

- One character: “” or “&#x201C;”, etc.
- 4-digit hexadecimal numbers: 201C
- Set of 4-digit hexadecimal numbers: 202A - 202E

Characters greater than or equal to U+10000 cannot be specified.

U or R or V can be specified to SVO or MVO. It means that U renders upright, R rotates 90-degree clockwise. V is same as U, but when vertical writing glyph is designed to rotate 90-degree counterclockwise originally, it is displayed by rotating 90-degree clockwise. See also [text-orientation-mode](#).

**Parent:** [<formatter-settings>](#)

**Attributes:** code | SVO | MVO

**Values:** see above

**Defaults:** none

<unbreakable-words>

Lists the unbreakable words by the line break. The character string of each line will become unbreakable. For example, if you write as follows, two phrases will become unbreakable:

<unbreakable-words>

こんにちは

Hello World

</unbreakable-words>

The leading and trailing white spaces (U+0009, U+0020) will be discarded. Consecutive white spaces (U+0009, U+0020) are grouped together and match consecutive white spaces (U+0009, U+000A, U+000D, U+0020) including line breaks. So taking the above example, any of the following will become unbreakable:

Hello World

Hello        World

Hello

World

Because the first phrase found from the beginning of the character string is the target, if

ABCD

CDEF

is specified, ABCD will be unbreakable for the character string of ABCDEFG. Since it is case sensitive, Abcd, etc. will not become unbreakable. Also, as AH Formatter tries to adopt as long a phrase as possible, if

ABCD

ABCDEF

is specified, ABCDEF will become unbreakable for the character string of ABCDEFG. If

cafe

is specified, café and cafe&#x301; will not become unbreakable. To make all of these unbreakable, you should specify as follows:

cafe

café

cafe&#x301;

Note the following:

- This processing is performed for character string of input XML. In other words, it is performed before processing `axf:normalize` or `axf:text-replace`, etc. Therefore, unbreakable character strings may be processed by them.
- If a character string that causes ligature, for example, ffi is specified as unbreakable up to ff, ligature as ffi will not occur.

**Parent:** `<formatter-settings>`

**Attributes:** `src`

src

You can specify external XML for src. That XML looks the same as this element, but `src` cannot be specified.

**Applies to:** `<unbreakable-words>`

**Values:** `<uri-specification>`

**Default:** none



## 2.1.2 Font Settings

### <font-settings>

These settings are used for the fonts.

**Attributes:** [auto-fallback-font](#), [barcode-text-font](#), [default-font-family](#), [emulated-italic](#), [emulated-small-caps](#), [fallback-glyph](#), [font-selection-mode](#), [font-stretch-mode](#), [missing-font](#), [missing-glyph](#), [missing-glyph-all](#),

**Parent:** [<formatter-settings>](#)

**Childs:** [<script-font>](#), [<font-alias>](#)

### auto-fallback-font

Specifies whether to look for a fall back font automatically when a font with a glyph cannot be found in the font family which was specified by FO. See also Font Selection in the Technical Notes of the Online Manual to learn more about the fall back method.

**Applies to:** [<font-settings>](#)

**Values:** true | false

**Default:** true

### barcode-text-font

Specifies the font used when you add the text of an original code to the Linear Barcode with Barcode Generator Option of the Online Manual.

**Applies to:** [<font-settings>](#)

**Values:** see Linear Barcode in the Barcode Generator Option of the Online Manual.

**Default:** none

### default-font-family

Specifies the default font family. Usually, it is one of the generic font families: serif, sans-serif, cursive, fantasy or monospace. See also Font Selection in the Technical Notes of the Online Manual.

**Applies to:** <font-settings>

**Values:** serif | sans-serif | cursive | fantasy | monospace

**Default:** serif

### emulated-italic

Specifies whether to report the error when italic is emulated in the selected font. Specify one of the following:

0. No error message will be reported.
1. The level 1 error message will be reported.
2. The level 2 error message will be reported.
3. The level 3 error message will be reported.
4. The level 4 error message will be reported.

**Applies to:** <font-settings>

**Values:** 0 | 1 | 2 | 3 | 4

**Default:** 0

### emulated-small-caps

Specifies whether to report the error when small-caps is emulated in the selected font. Specify one of the following:

0. No error message will be reported.
1. The level 1 error message will be reported.
2. The level 2 error message will be reported.
3. The level 3 error message will be reported.
4. The level 4 error message will be reported.

No error will be reported when `small-caps-emulation-always="true"` is specified.

**Applies to:** `<font-settings>`

**Values:** 0 | 1 | 2 | 3 | 4

**Default:** 0

#### fallback-glyph

Specifies whether to report it or not when the glyph is found in a fall back font. When the glyph corresponding to the specified character in the font family is not found, if `auto-fallback-font` is specified, a fall back font will be looked for. The following either can be specified:

0. No error message will be reported.
1. The level 1 error message will be reported.
2. The level 2 error message will be reported.
3. The level 3 error message will be reported.
4. The level 4 error message will be reported.

**Applies to:** `<font-settings>`

**Values:** 0 | 1 | 2 | 3 | 4

**Default:** 1

#### font-selection-mode

Specifies the selection method of fonts. The following values can be specified:

5. The setting of `font-selection-strategy` is disregarded and always considered `auto`.
6. The first font that has a glyph is adopted.

See also Font Selection in the Technical Notes of the Online Manual.

**Applies to:** `<font-settings>`

**Values:** 5 | 6

**Default:** 6

#### font-stretch-mode

Specifies whether the information on font-stretch is used when selecting fonts. The following values can be specified:

5. The information on font-stretch will not be used.

The operation is the same as AH Formatter V5.

6. The information on font-stretch will be used.

**Applies to:** <font-settings>

**Values:** 5 | 6

**Default:** 6

#### missing-font

Specifies whether to warn when a font is not found from the specified font family. The following either can be specified:

0. No error message will be reported.

1. The level 1 error message will be reported.

2. The level 2 error message will be reported.

3. The level 3 error message will be reported.

4. The level 4 error message will be reported.

**Applies to:** <font-settings>

**Values:** 0 | 1 | 2 | 3 | 4

**Default:** 1

#### missing-glyph

Specifies whether to warn when the glyph corresponding to the specified character is not found in the specified font family or the fallback font. The following either can be specified:

0. No error message will be reported.
1. The level 1 error message will be reported.
2. The level 2 error message will be reported.
3. The level 3 error message will be reported.
4. The level 4 error message will be reported.

**Applies to:** <font-settings>

**Values:** 0 | 1 | 2 | 3 | 4

**Default:** 1

#### missing-glyph-all

Usually the report on [missing-glyph](#) is given only once to the same character. However, by specifying `missing-glyph-all="true"`, the report can be given to all. Note that careless specification could cause huge amount of error. This setting is similarly applied to [fallback-glyph](#) as well.

**Applies to:** <font-settings>

**Values:** true | false

**Default:** false

#### <script-font>

This element is used to specify the script and the generic fonts to be used for each language family, e.g. for languages with the Latin alphabet. For multilingual processing, repeat this specification according to the language requirements. In the default system setting, this element is set for a number of language families, for the languages with Latin alphabet without specification of the [script](#) attribute.

**Attributes:** [script](#), [serif](#), [sans-serif](#), [monospace](#), [cursive](#), [fantasy](#), [fallback](#)

**Parent:** <font-settings>

## script

Specifies the script codes for multilingual setting. The available scripts conform to [ISO 15924](#). However, the AH Formatter V7.2 does not support all scripts. The scripts that can be specified here are scripts that are indicated in Scripts and Languages in the Overview of the Online Manual excluding Hira, Kana, and Hani. For generic fonts you may omit the setting of the script or specify as `script=""`.

**Applies to:** `<script-font>`

**Values:** see Scripts and Languages in the Overview of the Online Manual.

**Default:** none

## serif

Specifies the generic serif font when specified by the `script`.

**Applies to:** `<script-font>`

**Values:** `<family-name>`

**Default:** none

## sans-serif

Specifies the generic sans-serif font when specified by the `script`.

**Applies to:** `<script-font>`

**Values:** `<family-name>`

**Default:** none

## monospace

Specifies the generic monospace font when specified by the `script`.

**Applies to:** `<script-font>`

**Values:** `<family-name>`

**Default:** none

## cursive

Specifies the generic cursive font when specified by the [script](#).

**Applies to:** [<script-font>](#)

**Values:** [<family-name>](#)

**Default:** none

## fantasy

Specifies the generic font for fantasy when specified by the [script](#).

**Applies to:** [<script-font>](#)

**Values:** [<family-name>](#)

**Default:** none

## fallback

Specifies the fall back font of the script when specified by the [script](#).

Two or more fonts can be enumerated by comma-separated values.

**Applies to:** [<script-font>](#)

**Values:** [<family-name>](#)

**Default:** none

## <font-alias>

Formats the font name src (source) appearing in FO by replacing with dst (destination). This is achieved by specifying an arbitrary font name for src and dst. This makes it possible to substitute an unknown font in a document made in a different environment, without modifying the document. However, in the following sample:

```
<font-alias src="A" dst="B">
```

```
<font-alias src="B" dst="C">
```

“A” would never be replaced with “C”. Moreover, the setting for [<font-alias>](#) doesn't affect the font name in the Option file.

**Parent:** <font-settings>

**Attributes:** src, dst

### 2.1.3 PDF Output Settings

<pdf-settings>

The PDF settings apply to the PDF output of the AH XSL Formatter. For the attributes not linked here, please refer to the section “PDF Output Settings” in the AH XSL Formatter Online Manual (file: ahf-optset.html).

**Properties:** [allow-deprecated-annotation](#), [allow-embedding-lower-versions](#), allow-javascript, allow-nest-alt-text, check-tag-relationship, color-compression, color-compression-default, color-compression-minimum, color-conversion, color-downsampling, color-downsampling-above-dpi, color-downsampling-target-dpi, color-downsampling-default, color-downsampling-above-dpi-default, color-downsampling-target-dpi-default, color-downsampling-minimum, color-downsampling-above-dpi-minimum, color-downsampling-target-dpi-minimum, color-jpeg-quality, color-jpeg-quality-default, color-jpeg-quality-minimum, default-output-intent, [embed-all-fonts](#), embed-font-encoding, embed-std-output-intent, embed-subset-font-percentage, encrypt-metadata, encryption-level, [EPS-processor](#), error-on-embed-fault, error-on-missing-glyph, error-on-pdfx-fault, fallback-alttext, [ghostscript](#), grayscale-compression, grayscale-compression-default, grayscale-compression-minimum, grayscale-downsampling, grayscale-downsampling-above-dpi, grayscale-downsampling-target-dpi, grayscale-downsampling-default, grayscale-downsampling-above-dpi-default, grayscale-downsampling-target-dpi-default, grayscale-downsampling-minimum, grayscale-downsampling-above-dpi-minimum, grayscale-downsampling-target-dpi-minimum, grayscale-jpeg-quality, grayscale-jpeg-quality-default, grayscale-jpeg-



quality-minimum, [gs-options](#), image-color-profile, [import-annotation-types](#), [import-tagged-pdf](#), joboptions, linearized, mediabox-origin-zero, monochrome-compression, monochrome-compression-default, monochrome-compression-minimum, monochrome-downsampling, monochrome-downsampling-above-dpi, monochrome-downsampling-target-dpi, monochrome-downsampling-default, monochrome-downsampling-above-dpi-default, monochrome-downsampling-target-dpi-default, monochrome-downsampling-minimum, monochrome-downsampling-above-dpi-minimum, monochrome-downsampling-target-dpi-minimum, [multimedia-treatment](#), [new-tagging-mode](#), no-accessibility, no-adding-or-changing-comments, no-assemble-doc, no-changing, no-content-copying, no-fill-form, object-compression, object-compression-default, object-compression-minimum, [overprint](#), owner-password, page-labels, pages-max-kids, pass-through, pass-through-default, pass-through-minimum, [pdf-version](#), printing-allowed, rasterize-resolution, real-value-limit, real-value-limit-modify, reverse-page, [tagged-pdf](#), text-and-lineart-compression, text-and-lineart-compression-default, text-and-lineart-compression-minimum, transparency, transparency-color-space, use-launch-for-local-file, user-password, xmp-padding

**Parent:** [<formatter-config>](#)

**Child:** [<embed-font>](#)

## allow-deprecated-annotation

In PDF2.0, some annotations (Movie, Sound) are deprecated. These cannot be output. If you specify true, you will be able to output these in PDF2.0.

**Applies to:** [<pdf-settings>](#)

**Values:** false | true

**Default:** false

## allow-embedding-lower-versions

In PDF2.0, embedding of PDF1.X is deprecated. If you specify true, you will be able to embed PDF1.X in PDF2.0.

**Applies to:** <pdf-settings>

**Values:** false | true

**Default:** false

## embed-all-fonts

Specifies whether or not to embed in the PDF all fonts that are embeddable, with one of the following values:

- false: Only fonts specified in <embed-font> are embedded.
- true: All fonts that can be embedded will be embedded, except for the Standard 14 Fonts.
- base14: All fonts that can be embedded will be embedded, including the Standard 14 Fonts.

In the GUI, this can be specified by selecting the Embed All Embeddable Fonts option.

**Applies to:** <pdf-settings>

**Values:** false | true | base14

**Default:** true

## EPS-processor

Specifies whether to output PDF after changing into PDF using an external processor when outputting EPS to PDF in the formatted result.

The value is case-insensitive.

- none
- distiller
- ghostscript

These have the following meanings:

- none: Use nothing. The same way in the past.

- distiller: Use Adobe Distiller in the environment where Adobe Distiller is installed. `acrodist.exe` is used. Effective only with the Windows version. PS support at this time has a little restrictions.
  - PS-Adobe-2.0 or later required.
  - `%%BeginProlog` and `%%EndProlog` should be included.

☞ `joboptions`

- ghostscript: Use [Ghostscript](#) in the environment where Ghostscript is installed. Use `gswin32c.exe` with the Windows version (use `gswin64c.exe` with Windows 64-bit) and use `gs` with non-Windows. Since the program is invoked by `fork()` etc. and used, there is no problem with GPL license.

☞ [ghostscript](#)

Invalid in the environment where each processor is not installed. Moreover, it's necessary to set the PATH etc. of the program to use.

**Applies to:** [<pdf-settings>](#)

**Values:** none | ghostscript | distiller

**Default:** none

### ghostscript

When converting EPS into PDF using Ghostscript, the full path to Ghostscript can be specified. For example, specify as `ghostscript="/usr/local/bin/gs"`. Thereby, Ghostscript can be invoked even if the PATH does not set to Ghostscript. Specify `gswin32c.exe` in Windows version (specify `gswin64c.exe` with Windows 64-bit).

**Applies to:** [<pdf-settings>](#)

**Values:** path to Ghostscript program

**Default:** none

## gs-options

When converting EPS into PDF using Ghostscript, AH Formatter V7.2 specifies the following parameters and starts Ghostscript by default:

```
-dPDFSETTINGS=/printer
-dNOPAUSE
-dBATCH
-dSAFER
-sDEVICE=pdfwrite
-dDEVICEWIDTHPOINTS=%width
-dDEVICEHEIGHTPOINTS=%height
-dEPSFitPage
-dCompatibilityLevel=1.3
-dAutoRotatePages=/None
-q
-sOutputFile=%temp
-c
.setpdfwrite
-f
%eps
```

The next four starting with % are replaced by their respective values by AH Formatter V7.2.

- %width: Width of EPS
- %height: Height of EPS
- %eps: Input EPS
- %temp: Temporary Output File

You can specify any parameter with `gs-options`. Specify multiple parameters separated by `U+000A`. The `gs-options` setting completely replaces the above settings and launches Ghostscript. The setting of `-sOutputFile` is always considered to be `-sOutputFile=%temp`. If `%temp` is not included, it will be added. If `%eps` is not included, it will be added at

the end. The operation is not guaranteed when invalid parameters are specified.

**Applies to:** <pdf-settings>

**Values:** if necessary, other parameters, separated by the character U+000A.

**Default:** none

#### import-annotation-types

Annotations contained in the embedded PDF is embeddable directly in PDF. Specify the following character strings (case insensitive) separated by white spaces:

All | Text | Link | FreeText | Line | Square | Circle | Polygon | PolyLine | Highlight | Underline | Squiggly | StrikeOut | Stamp | Caret | Ink | Popup | FileAttachment | Sound | Movie | Screen | 3D | RichMedia | Other

Specify Other when you embed annotations with no type written.

When All is specified, all the annotations are embedded. In GUI, it can be specified by selecting the Import All Annotations option. For more details, see also PDF Embedding in PDF Output of the Online Manual.

**Applies to:** <pdf-settings>

**Values:** see above

**Default:** none

#### import-tagged-pdf

Specifies whether to permit embedding tagged PDF in tagged PDF. If true is specified, the tagged PDF is embedded “as is” without producing an error. In GUI, you can change the setting at Allow Importing Tagged PDF. For more details, see also PDF Embedding in PDF Output of the Online Manual.

**Applies to:** <pdf-settings>

**Values:** false | true

**Default:** false

#### multimedia-treatment

Specifies whether to embed multimedia (see Multimedia in PDF Output of the Online Manual) in PDF in case of `axf:multimedia-treatment="auto"`, with one of the following values:

- embed
- absolute-link
- relative-link
- richmedia
- richmedia-windowed

**Applies to:** `<pdf-settings>`

**Values:** embed | absolute-link | relative-link | richmedia | richmedia-windowed

**Default:** embed

#### new-tagging-mode

If true is specified, when explicitly specifying an empty string such as `axf:pdftag=""`, that element does not create a tag but belongs to the tag to which the parent area belongs. In addition, the Role Map is also enabled, and maps from nonstandard tag names to standard tag names are valid. Specifying `axf:pdftag=""` on the root element has no effect since the root element does not have a parent: a Document tag is always created.

**Applies to:** `<pdf-settings>`

**Values:** true | false

**Default:** false

## overprint

Specifies the overprint. Any values of `axf:overprint` other than auto can be specified.

**Applies to:** `<pdf-settings>`

**Values:** see `axf:overprint`

**Default:** none

## pdf-version

Specifies the version of the PDF to create with one of the following values:

- PDF1.3
- PDF1.4
- PDF1.5 (system setting)
- PDF1.6
- PDF1.7 (can be read with Adobe Acrobat Reader, version 8.0 or higher)
- PDF2.0 (compliant with ISO 32000-2:2017)
- PDF/X (optimized for print output) with the variants 1a:2001, 3:2002, 1a:2003, 2:2003, 3:2003, 4:2010 and 4p:2010 (ISO 15930-7:2010)
- PDF/A (optimized for archiving) with the variants 1a:2005 and 1b:2005)
- PDF1.4/A (optimized for archiving) with the variants 2a:2011, 2b:2011, 2u:2011, 3a:2012, 3b:2012 and 3u:2012)
- PDF1.5/A (optimized for archiving) with the variants 2a:2011, 2b:2011, 2u:2011, 3a:2012, 3b:2012 and 3u:2012)
- PDF1.6/A (optimized for archiving) with the variants 2a:2011, 2b:2011, 2u:2011, 3a:2012, 3b:2012 and 3u:2012)
- PDF1.7/A (optimized for archiving) with the variants 2a:2011, 2b:2011, 2u:2011, 3a:2012, 3b:2012 and 3u:2012)
- PDF/UA (Universal Accessibility; optimized for facilitated content accessibility). Alternative textual descriptions (required for graphics

and numeric formulas) can be specified with the `axf:alttext` extension, links with `axf:annotation-contents`:

PDF1.5/UA-1:2014

PDF1.6/UA-1:2014

PDF1.7/UA-1:2014

In GUI, it can be specified by selecting the PDF Version option.

**Applies to:** `<pdf-settings>`

**Values:** see the versions above

**Default:** PDF1.5

### tagged-pdf

Specifies whether to make the Tagged PDF file or not. PDF may not be able to be tagged depending on the PDF versions. In this case this setting will be ignored. In GUI, it can be specified by selecting the Tagged PDF option.

**Applies to:** `<pdf-settings>`

**Values:** true | false

**Default:** false

### `<embed-font>`

Specifies the fonts that are embedded in the PDF. This element can be specified without limit and is effective only when `embed-all-fonts="false"` is specified. When `embed-all-fonts="false"` is specified and this element is not specified, only the glyphs of the characters that are needed in the PDF output are embedded. When this element is specified and if the font indicated here is used within the formatted results, the glyph of the character currently used will be embedded. For a font that is not specified, embedding is performed only for the glyphs of the characters that are needed in the PDF output.

**Parent:** `<pdf-settings>`



**Attributes:** [font](#)

font

The value of this attribute must be the font name of a font whose embedding is allowed. Licensed fonts may be declared as non-embeddable. The PDF generator of the AH XSL Formatter strictly observes this restriction.

**Applies to:** [<embed-font>](#)

**Wert:** [<family-name>](#)

**Default:** none

## 2.1.4 PostScript Output Settings

[<ps-settings>](#)

These settings are used for PostScript® Output (see PostScript® Output in Output Formats of the Online Manual).

**Parent:** [<formatter-config>](#)

**Attributes:** noembed-font, transparency, use-launch-for-local-file

## 2.1.5 SVG Output Settings

[<svg-settings>](#)

These settings are used for SVG Output (see SVG Output in Output Formats of the Online Manual).

**Parent:** [<formatter-config>](#)

**Attributes:** copy-image-path, copy-image-prefix, create-copy-image-path, format, gzip-compression, image-conversion, image-processing, jpeg-quality,

rename-copy-image, singlefile, singlefile-number, rasterize-resolution, svg-version

## 2.1.6 Text Output Settings

<text-settings>

These settings are used for TEXT Output (see TEXT Output in Output Formats of the Online Manual).

**Parent:** <formatter-config>

**Attributes:** encoding, eol-marker

encoding

Specifies the encoding of the output text. The following encodings are available (case insensitive): UTF-8 (system setting), UTF-16, UTF-16BE, UTF-16LE, UTF-32, UTF-32BE, UTF-32LE, ISO-10646-UCS-2, ISO-10646-UCS-4, ANSI\_X3.4, ISO\_646.irv, ISO646-US, US-ASCII, ISO\_8859-1, latin1, Windows-31J, Shift\_JIS, EUC-JP, ISO-2022-JP. Endian of UTF-16, UTF-32 etc. depends on the processor in the operating system.

**Applies to:** <text-settings>

**Values:** see above

**Default:** UTF-8

eol-marker

Specifies the linefeed code of the output text. The following can be specified (case insensitive):

- CRLF
- LF
- CR

**Applies to:** `<text-settings>`

**Values:** CRLF | LF | CR

**Default:** CRLF in Windows, LF in others.

## 2.1.7 MathML Settings

`<mathml-settings>`

These settings are used for MathML (see MathML Conformance in Conformance of the Online Manual).

**Parent:** `<formatter-config>`

**Attributes:** `mathDisplay`, `scriptsizemultiplier`, `scriptsizemultiplierMscarries`, `scriptminsize`, `scriptmaxsize`, `largeopmultiplier`, `largeopmultiplierInt`, `mathsizeSmall`, `mathsizeBig`, `enQuad`, `emQuad`, `enSpace`, `emSpace`, `thinSpace`, `hairSpace`, `veryverythinmathspace`, `verythinmathspace`, `thinmathspace`, `mediummathspace`, `thickmathspace`, `verythickmathspace`, `veryverythickmathspace`, `accentOffset`, `defaultLSpace`, `defaultRSpace`, `defaultMinsize`, `defaultLineleading`, `mathLeading`, `linebreakingHeightAdjust`, `indentingnewline`, `applyFunctionSpace`, `invisibleTimesSpace`, `scriptAlignMode`, `italicSubscriptShift`, `integralSubscriptShift`, `integralSuperscriptShift`, `integralUnderOverShift`, `thinLine`, `mediumLine`, `thickLine`, `fracLineExtend`, `fracLineSpace`, `fracLineOverGap`, `fracLineUnderGap`, `bevelledAngle`, `bevelledHeight`, `rootPosition1x`, `rootPosition1y`, `rootPosition2x`, `rootPosition2y`, `rootPosition3x`, `rootPosition3y`, `rootPosition4x`, `rootPosition4y`, `rootThickness1`, `rootThickness2`, `rootThickness3`, `rootThickness4`, `rootRoundRadius`, `encloseLineThickness`, `encloseCircle`, `roundedboxRadius`, `columnspacing`, `rowspacing`, `framespacing`, `columnlineThickness`, `rowlineThickness`, `framelineThickness`, `charspacingTight`, `charspacingMedium`,

charspacingLoose, overlapMsline, mslineOverGap, mslineUnderGap, crossoutThickness, errorColor, errorBackground, escapingMs, italicizeMi, stylisticMi, substKeyboardCharacters, pseudoScripts, inheritFontweight, enableOpenTypeMATH, exceptOpenTypeMATHVariants, mathmlSettingsMode

**Childs:** [<variant-font>](#), [<operator-dictionary>](#)

#### [<variant-font>](#)

Specifies the font corresponding to mathvariant. A ny number of this element can be specified. See also Fonts for Math Expression in the Online Manual.

**Parent:** [<mathml-settings>](#)

**Attributes:** mathvariant, fontfamily, center-shift

**Child:** [<font-entry>](#)

#### [<font-entry>](#)

Specifies the font that corresponds to the script or Unicode Range. This setting can change a part of fonts specified by fontfamily of [<variant-font>](#). Any number of this element can be specified. Either script or unicode-range must be specified. The effect is not guaranteed when both are specified.

**Parent:** [<variant-font>](#)

**Attributes:** fontfamily, script, unicode-range, mathvariant, center-shift

#### [<operator-dictionary>](#)

operator-dictionary is specified in order to change the contents of the default operator dictionary. Any number of this element can be specified and is evaluated in order. See also MathML Conformance in Conformance of the Online Manual to learn more about the operator dictionary.

**Parent:** [<mathml-settings>](#)

**Attributes:** src

**Child:** <entry>

<entry>

Any number of this element can be specified and is evaluated in order. If the setting is the same, latter one will take precedence. The default value is the one when the new unregistered operator is specified. When the operator is already registered, omitted attribute values will not be changed. <entry> is disregarded when src of <operator-dictionary> is specified.

**Parent:** <operator-dictionary>

**Attributes:** operator, form, priority, lspace, rspace, minsize, maxsize, accent, fence, separator, stretchy, symmetric, largeop, movablelimits, linebreakstyle

### 2.1.8 CGM Settings

<cgm-settings>

These settings are used for CGM (see CGM Conformance in Conformance of the Online Manual).

**Parent:** <formatter-config>

**Attributes:** issue-unknown-element, issue-unsupported-element, default-line-cap, default-edge-cap, default-line-join, default-edge-join, default-mitre-limit, default-restricted-text-type, fallback-font, aci

## 2.1.9 XSLT Settings

<xslt-settings>

These settings are used for XSLT Processor.

**Parent:** <formatter-config>

**Attributes:** [msxml](#), [msxmlver](#), [command](#), [param-option](#)

**Childs:** <param>, <stylesheet>, <msxml>

[msxml](#)

Specifies whether to use MSXML or not. If true is specified, MSXML is used as an XSLT Processor. Specification of [command](#) is disregarded at this time. If false is specified, the external XSLT Processor specified from [command](#) will be used, but when nothing is specified from [command](#), it is considered that true is specified and MSXML is used. The version of MSXML actually used can be checked in the GUI on the XSLT page of the Format Option Setting Dialog. This setting is ignored in non-Windows environment.

**Applies to:** <xslt-settings>

**Values:** true | false

**Default:** true

[msxmlver](#)

Specifies the maximum version of MSXML used internally when [msxml="true"](#) is specified. Any version from 6 to 3 can be specified. For example, when 5 is specified, AH Formatter searches MSXML in order of MSXML5 → MSXML4 → MSXML3 and adopts the first found MSXML. If nothing is specified or the specified value is incorrect (such as 0), the version will be considered 6. This setting is effective only with Windows version.

**Applies to:** <xslt-settings>

**Values:** true | false

**Default:** 0

#### command

The command line of the External XSLT Processor is specified here. The command line strings must include at least three identifiers, %1, %2 and %3.

- %1: XML document
- %2: XSL stylesheet
- %3: XSLT Output File
- %param: Parameter of `xsl:param`

If nothing is specified, or “@MSXML” is specified, the external processor is not used but the internal processor, MSXML is used. This setting is effective only with Windows version. It's an initial setting of XSLT Processor with all kinds of interfaces. If nothing is specified in non-Windows environment, XSLT transformation is not performed.

**Applies to:** `<xslt-settings>`

**Values:** a command line for the XSLT processor

**Default:** none

#### param-option

Specifies the parameter type of `xsl:param` given to the external XSLT Processor. The strings must include at least two identifiers, %p and %v. These values are as follows:

- %p: Value of name of `<param>`
- %v: Value of value of `<param>`

These values affect the part of %param in the `command` strings. When two or more `<param>`s are specified, they are divided by the white space and repeated.

**Applies to:** `<xslt-settings>`

**Values:** see above

**Default:** none

<param>

**Parent:** <xslt-settings>

**Attributes:** [name](#), [value](#)

name

Specifies the parameter name of xsl:param for XSLT Processor.

**Applies to:** <param>

**Values:** see above

**Default:** none

value

Specifies the parameter value of xsl:param for XSLT Processor. When the value includes a white space, since the quotation marks will not be processed, explicitly enclose in quotation marks.

**Applies to:** <param>

**Values:** see above

**Default:** none

<stylesheet>

**Parent:** <xslt-settings>

**Attributes:** [ns](#), [href](#)

ns

href

Possible to specify the stylesheet applied to a specific XML document.

Specifies the name space of the XML document by ns, and specifies



the URI of the stylesheet by href. The following shows the example of XHTML and WordML:

```
<stylesheet ns="http://www.w3.org/1999/xhtml" href="xhtml2fo.xsl"/>
<stylesheet ns="http://schemas.microsoft.com/office/word/2003/wordml"
  href="[WordMLToF0 install directory]/WordMLToF0.xsl"/>
```

If the XML document has the name space specified here, it can be formatted by itself, without specifying the stylesheet. If the stylesheet is specified when formatting or the stylesheet is specified in the XML document, these are adopted and the setting here will be ignored.

**Applies to:** [<stylesheet>](#)

**Values:** see above

**Default:** none

`<msxml>`

**Parent:** [<xslt-settings>](#)

**Attributes:** [name](#), [value](#)

`name`

`value`

Specifies the property of MSXML when `msxml="true"` is specified. The property name is specified by `name` and the value is specified by `value`. For the moment, only true or false can be specified as value. That is, the property which needs the other value cannot be specified. There are two types of properties available.

- Properties specified by the `setProperty()` method like, `setProperty("AllowXsltScript", true);`
- Properties specified by the value directly like, `resolveExternals = true;`

`name` interpreted as the latter one are as follows:

- `preserveWhiteSpace`

- validateOnParse
- resolveExternals

In any case other than these, the value is set via the `setProperty()` method. The character string of name is not checked. It is considered that the following are set as default:

```
<msxml name="preserveWhiteSpace" value="true"/>
<msxml name="validateOnParse" value="false"/>
<msxml name="resolveExternals" value="true"/>
<msxml name="ServerHttpRequest" value="true"/>
<msxml name="ProhibitDTD" value="false"/>
<msxml name="AllowDocumentFunction" value="true"/>
<msxml name="AllowXsltScript" value="false"/>
```

From MSXML6.0, `resolveExternals` became `ResolveExternals` (AH Formatter V7.2 accepts both). Also, the default value of this is `false` when `external-entity="false"` is specified.

See also [MSXML Security Overview](#). The settings are ignored with non-Windows versions.

**Applies to:** `<msxml>`

**Values:** see above

**Default:** none

Suppose XSLT setting is as follows:

```
.....
<xslt-settings command="xslt -o &#34;%3&#34; &#34;%1&#34; &#34;%2&#34;
%param" param-option="%p=%v">
  <param name="foo" value="123"/>
  <param name="bar" value="&#34;Hello, World&#34;"/>
</xslt-settings>
.....
```

XSLT Processor executes as follows in order to transform file.xml and file.xsl into file.fo:

```
.....  
xslt -o "file.fo" "file.xml" "file.xsl" foo=123 bar="Hello, World"  
.....
```

As described in the example here, the actual file name given to %1 or %2 includes white space, it's necessary to enclose the file name with quotation mark, “&#34;”.

### 2.1.10 Analyzer Settings

<analyzer-settings>

These settings are used for automated analysis of the Area Tree (see Automated Analysis in Features of the Online Manual).

**Parent:** <formatter-config>

**Attributes:** analyze, end-blank-pages, end-blank-pages-limit, hyphen, hyphen-limit, line-start-end, line-start-limit, line-start-repeat-limit, line-end-limit, line-end-repeat-limit, lines-after, lines-before, page-widow, page-widow-limit-em, page-widow-limit-percent, paragraph-widow, paragraph-widow-limit-em, paragraph-widow-limit-percent, river, river-zone, unbalanced-spread, unbalanced-spread-limit, white-space

analyze

Specifies whether or not to perform analysis checks.

**Applies to:** <analyzer-settings>

**Values:** false | true

**Default:** true

#### end-blank-pages

Specifies whether or not to analyze the number of blank pages at the end of the document.

**Applies to:** <analyzer-settings>

**Values:** false | true

**Default:** true

#### end-blank-pages-limit

Allowed number of blank pages at the end of document.

**Applies to:** <analyzer-settings>

**Values:** <integer>

**Default:** 2

#### hyphen

Specifies whether or not to analyze the number of consecutive lines that end with a hyphen.

**Applies to:** <analyzer-settings>

**Values:** false | true

**Default:** true

#### hyphen-limit

Allowed number of consecutive lines that end with a hyphen.

**Applies to:** <analyzer-settings>

**Values:** <integer>

**Default:** 3

#### line-start-end

Specifies whether or not to analyze consecutive lines that start, or that end, with the same word.

**Applies to:** <analyzer-settings>

**Values:** false | true

**Default:** true

#### line-start-limit

Maximum number of characters to compare at the start of a line.

**Applies to:** <analyzer-settings>

**Values:** <integer>

**Default:** 8

#### line-start-repeat-limit

Allowed number of lines that start with the same word.

**Applies to:** <analyzer-settings>

**Values:** <integer>

**Default:** 2

#### line-end-limit

Maximum number of characters to compare at the end of a line.

**Applies to:** <analyzer-settings>

**Values:** <integer>

**Default:** 8

#### line-end-repeat-limit

Allowed number of lines that end with the same word.

**Applies to:** <analyzer-settings>

**Values:** <integer>

**Default:** 2

#### lines-after

Specifies whether or not to analyze the number of lines after a block.

**Applies to:** <analyzer-settings>

**Values:** false | true

**Default:** true

#### lines-before

Specifies whether or not to analyze the number of lines before a block.

**Applies to:** <analyzer-settings>

**Values:** false | true

**Default:** true

#### page-widow

Specifies whether or not to analyze pages that start with a page-level widow.

**Applies to:** <analyzer-settings>

**Values:** false | true

**Default:** true

#### page-widow-limit-em

Minimum width, in 'em' for the current block, of a widow line at the start of a page. If the value is 0, this setting is ignored. A negative value is treated as 0.

**Applies to:** <analyzer-settings>

**Values:** <number>

**Default:** 2.5

#### page-widow-limit-percent

Minimum width, in percent of the current block width, of a widow line at the start of a page. If the value is 0, this setting is ignored. A negative value is treated as 0.

**Applies to:** <analyzer-settings>

**Values:** <integer>

**Default:** 15

#### paragraph-widow

Specifies whether or not to analyze paragraphs that end with a paragraph-level widow.

**Applies to:** <analyzer-settings>

**Values:** false | true

**Default:** true

#### paragraph-widow-limit-em

Minimum width, in 'em' for the current block, of a widow line at the start of a paragraph. If the value is 0, this setting is ignored. A negative value is treated as 0.

**Applies to:** <analyzer-settings>

**Values:** <number>

**Default:** 2.5

#### paragraph-widow-limit-percent

Minimum width, in percent of the current block width, of a widow line at the start of a paragraph. If the value is 0, this setting is ignored. A negative value is treated as 0.

**Applies to:** <analyzer-settings>

**Values:** <integer>

**Default:** 15

#### river

Either the maximum allowed cumulative width, in 'em' or as an absolute length, for a river of white-space within a block or the value none to disable river analysis.

**Applies to:** <analyzer-settings>

**Values:** <length> | <integer>em | none

**Default:** 1em

#### river-zone

Maximum allowed width between two non-overlapping spaces on consecutive lines for the spaces to be considered a part of the same river. This setting is ignored when `river` is none.

**Applies to:** <analyzer-settings>

**Values:** <integer>

**Default:** 0

#### unbalanced-spread

Specifies whether or not to analyze unbalanced spreads.

**Applies to:** <analyzer-settings>

**Values:** false | true

**Default:** true

#### unbalanced-spread-limit

Allowed height difference, in 'pt', for an unbalanced spread. A negative value is treated as 0.

**Applies to:** <analyzer-settings>

**Values:** <integer>

**Default:** 0

#### white-space

Either the maximum width, in 'em' or as an absolute length, for white-space between consecutive words on a line or the value none to disable white-space analysis.

**Applies to:** <analyzer-settings>



Values: <length> | <integer>em | none

Default: 0.40em

### 2.1.11 Example of an Option Setting File

```
.....  
<?xml version="1.0"?>  
<formatter-config>  
  <formatter-settings  
    default-page-width="210mm"  
    default-page-height="297mm"  
    default-font-size="10pt"  
    normal-line-height="1.2"  
    default-color="#000000"  
    border-thin-width="1pt"  
    border-medium-width="3pt"  
    border-thick-width="5pt"  
    pxpi="96"  
    default-lang=""  
    default-CJK="ja"  
    punctuation-trim="true"  
    text-autospace="true"  
    vertical-underline-side="auto"  
    punctuation-spacing="0.5"  
    text-autospace-width="0.25"/>  
  <pdf-settings  
    embed-all-fonts="false"
```

```

error-on-embed-fault="false"
user-password=""
master-password=""
no-printing="false"
no-changing="false"
no-content-copying="false"
no-adding-or-changing-comments="false"
color-compression="auto"
color-jpeg-quality="80"
text-and-lineart-compression="true"
use-launch-for-local-file="true"
rasterize-resolution="108">
<embed-font font="Arial"/>
<embed-font font="Courier New"/>
</pdf-settings>
<font-settings default-font-family="serif">
  <script-font
    serif="Times New Roman"
    sans-serif="Arial"
    monospace="Courier New"
    cursive="Times New Roman"
    fantasy="Times New Roman"/>
  <script-font
    script="Jpan"
    serif="IPAMincho"
    sans-serif="IPAGothic"
    monospace="IPAMincho"/>
  <script-font
    script="Hang"
    serif="Batang"

```

```

    sans-serif="Gulim"
    monospace="BatangChe"/>
<script-font
    script="Hans"
    serif="SimSun"
    sans-serif="SimHei"
    monospace="SimSun"/>
<script-font
    script="Hant"
    serif="MingLiU"
    sans-serif="MingLiU"
    monospace="MingLiU"/>
<font-alias src="MS Mincho" dst="IPAMincho"/>
<font-alias src="MS Gothic" dst="IPAGothic"/>
</font-settings>
<xslt-settings command="xslt -o &#34;%3&#34; &#34;%1&#34; &#34;%2&#34;
    %param" param-option="%p=%v">
    <param name="foo" value="123"/>
    <param name="bar" value="XYZ"/>
</xslt-settings>
</formatter-config>
.....

```

## 2.2 AHF Extensions: Formatting Objects

The extension objects are listed in alphabetical order. After a short function description, the permissible properties are enumerated, as well as

the parent objects within which the given object may be used and, if applicable, the child objects which the given object may contain.

The more detailed function descriptions and examples for the application can be found in XSL/CSS Extensions in Features of the AHF Online Manual.

## 2.2.1 Groups of Formatting Objects with AHF Extension Properties

### All Formatting Objects

**Properties:** `axf:assumed-page-number`, `axf:background-clip`,  
`axf:background-content-type`, `axf:background-image-resolution`,  
`axf:background-origin`, `axf:background-size`, `axf:base-uri`,  
`axf:expansion-text`, `axf:font-feature-settings`, `axf:justify-nbsp`,  
`axf:overflow-limit`, `axf:overflow-limit-block`, `axf:overflow-limit-inline`,  
`axf:overprint`, `axf:pdftag`, `axf:suppress-duplicate-marker-contents`,  
`axf:suppress-duplicate-page-number`, `axf:text-emphasis-style`,  
`axf:text-emphasis-position`, `axf:text-emphasis-offset`,  
`axf:text-emphasis-skip`

### All Block and Inline Level Formatting Objects

**Properties:** `axf:annotation-author`, `axf:annotation-border-style`,  
`axf:annotation-border-width`, `axf:annotation-border-color`,  
`axf:annotation-color`, `axf:annotation-contents`,  
`axf:annotation-file-attachment`, [axf:annotation-file-name](#),  
`axf:annotation-createdate`, `axf:annotation-modifydate`,  
`axf:annotation-font-family`, `axf:annotation-flags`, `axf:annotation-height`,  
`axf:annotation-font-size`, `axf:annotation-font-style`,  
`axf:annotation-font-weight`, `axf:annotation-height`, `axf:annotation-icon-name`,

afx:annotation-open, afx:annotation-position-horizontal,  
afx:annotation-position-vertical, afx:annotation-text-align,  
afx:annotation-text-color, afx:annotation-title, afx:annotation-type,  
afx:annotation-width, afx:kansuji-grouping-letter, afx:kansuji-letter,  
afx:kansuji-style, afx:kerning-mode, afx:layer, afx:ligature-mode,  
afx:normalize, afx:normalize-exclude, afx:number-transform,  
afx:punctuation-spacing, afx:punctuation-trim, afx:soft-hyphen-treatment,  
afx:text-autospace, afx:text-autospace-width, afx:text-combine-horizontal,  
afx:text-justify, afx:text-justify-trim, afx:text-kashida-space,  
afx:text-orientation, afx:text-replace, afx:text-stroke,  
afx:text-stroke-color, afx:text-stroke-width, afx:url-break,  
afx:vertical-underline-side, afx:word-break, afx:word-wrap

## Block-level Formatting Objects

afx:baseline-block-snap, afx:baseline-grid, afx:condensed-text-align-last,  
afx:destination-type, afx:index-page-citation-range-f-suffix,  
afx:index-page-citation-range-ff-suffix,  
afx:keep-together-within-dimension,  
afx:keep-together-within-inline-dimension, afx:line-break,  
afx:outline-color, afx:outline-expand, afx:outline-external-destination,  
afx:outline-font-style, afx:outline-font-weight,  
afx:outline-group, afx:outline-internal-destination,  
afx:outline-level, afx:outline-title, afx:overflow-align,  
afx:overflow-condense, afx:overflow-condense-limit-font-size,  
afx:overflow-condense-limit-font-stretch,  
afx:overflow-condense-limit-line-height,  
afx:overflow-condense-limit-letter-spacing, afx:overflow-replace,  
afx:text-overflow

## All Block-level Formatting Objects Descendants of `<fo:flow>`, `<fo:table-column>`

`axf:line-continued-mark`, `axf:line-continued-mark-color`,  
`axf:line-continued-mark-background-color`,  
`axf:line-continued-mark-font-family`, `axf:line-continued-mark-font-size`,  
`axf:line-continued-mark-font-style`, `axf:line-continued-mark-font-weight`,  
`axf:line-continued-mark-offset`, `axf:line-number`,  
`axf:line-number-background-color`, `axf:line-number-color`,  
`axf:line-number-display-align`, `axf:line-number-except-continued-line`,  
`axf:line-number-font-family`, `axf:line-number-font-size`,  
`axf:line-number-font-style`, `axf:line-number-font-weight`,  
`axf:line-number-offset`, `axf:line-number-position`,  
`axf:line-number-text-align`, `axf:line-number-text-decoration`,  
`axf:line-number-width`

## All Objects which can have Borders

`axf:border-connection-form`, `axf:border-radius`,  
`axf:border-bottom-left-radius`, `axf:border-bottom-right-radius`,  
`axf:border-top-left-radius`, `axf:border-top-right-radius`,  
`axf:border-double-thickness`, `axf:border-wave-form`, `axf:box-shadow`,  
`axf:diagonal-border-color`, `axf:diagonal-border-style`,  
`axf:diagonal-border-width`, `axf:reverse-diagonal-border-color`,  
`axf:reverse-diagonal-border-style`, `axf:reverse-diagonal-border-width`

## Multi-column Objects

`axf:column-fill`

## All Objects with and Generated Content with Textual Content

`axf:text-line-color`, `axf:text-line-style`, `axf:text-line-width`,  
`axf:text-underline-position`

## Transformable Objects

[axf:transform](#), [axf:transform-origin](#)

## Emphasis Objects

[axf:text-emphasis-font-family](#), [axf:text-emphasis-font-size](#),  
[axf:text-emphasis-font-style](#), [axf:text-emphasis-font-weight](#),  
[axf:text-emphasis-font-stretch](#), [axf:text-emphasis-color](#)

## Inline Formatting Objects

[axf:auto-letter-spacing](#), [axf:intrude-into-punctuation](#),  
[axf:letter-spacing-side](#)

### 2.2.2 AHF Extension Objects

`<axf:counter-style>`

With AH XSL Formatter, unique counter style can be defined.

Common usage: Defining custom counter styles. This object does not generate area.

**Properties:** [name](#), [system](#), [negative](#), [prefix](#), [suffix](#), [range](#), [pad](#), [fallback](#),  
[symbols](#), [additive-symbols](#) (all AHF counterstyle specific)

**Parent Objects:** `<fo:declarations>`

`<axf:custom-property>`

Specifies the custom property in PDF. Effective with PDF1.4 or later.  
Invalid with PDF/A.

Common Usage: Specifies the custom property. This object does not create an area.

**Properties:** [name](#) (AHF specific), [value](#) (AHF specific)

**Parent Objects:** <fo:declarations>

**Child Objects:** –

<axf:document-info>

This empty extension object, in arbitrary accumulation, can be used to embed different document-related information in the PDF output. These are referred to as PDF keywords with the name property and written as CDATA contents or keywords in value. A distinction must be made between the situation of PDF output in one or more PDF documents: In the former case, this document must stand as a direct child object before all other child objects in <fo:root>. When outputting to multiple PDF files, <axf:document-info> must stand as the first child object under the <fo:page-sequence> object which constitutes the PDF document. Any axf:document-info objects standing under <fo:root> will be ignored.

The supported bibliography related PDF keywords are: document-title; subject; author; author-title; description-writer; keywords; copyright-status with values Unknown, Copyrighted, or PublicDomain; copy-right-notice with the copyright information as value; copyright-info-url with the URL of the copyright information as value (treated as text only, does not generate access to the URL! ); xmp.

The value of the xmp name is the URL of the external XMP file. The URL specification corresponds to the <uri-specification> of XSL. See also URI in the Online Manual, file ahf-tech.html#URI).

If an XMP file is referenced, the author-title, description-writer, copyright-status, copyright-notice, and copyright-info-url names become invalid. Instead of referencing an XMP file, the AH extension object <axf:custom-property> can also be set.

Keywords for display when the document is opened: pagemode with values UseNone, UseOutlines, UseThumbs, FullScreen or UseOC.



Keywords for the page layout when the document is opened:  
pagelayout with values SinglePage, OneColumn, TwoColumnLeft, TwoColumnRight, TwoPageLeft or TwoPageRight.

The display window related keywords: hidetoolbar with values true or false, the default is false; hidemenubar with values true or false, the default is false; hidewindowui with values true or false, the default is false; fitwindow with values true or false, the default is false; centerwindow with values true or false, the default is false; displaydoctitle with values true or false, the default is false; openaction with special application specifications.

Date-related keywords: createdate or modifydate (see Online Manual, file ahf-ext.html/#ahf.document-info).

This extension is comprehensively documented in the Online Manual of the AH XSL Formatter with the specifics and limitations (file: ahf-ext.html).

**Properties:** [name](#) (AHF specific), [value](#) (AHF specific)

**Parent Objects:** [<fo:root>](#), [<fo:page-sequence>](#) (see above)

[<axf:font-face>](#)

In AH XSL Formatter, it is possible to add fonts you want to use in the document.

Common usage: Specifies an additional font. This object does not generate area.

**Properties:** [src](#), [font-family](#), [font-style](#), [font-weight](#), [font-stretch](#), [unicode-range](#), [size-adjust](#)

**Parent Objects:** [<fo:declarations>](#)

[<axf:footnote-number>](#)

With this empty extension object inside [<fo:inline>](#), inside [<fo:footnote>](#) the footnote numbering can be generated by the AH XSL Formatter.

This also makes it possible to reset footnote counters at the page level. The control of footnote counting and footnote number design is done by `axf:footnote-number-reset`, `axf:footnote-number-format` and `axf:footnote-number-initial` in `<fo:page-sequence>!`

**Application example:** The footnotes in a page sequence should be counted with asterisks (\*), the count should be reset to one asterisk on each page. First the AHF extensions in `<fo:page-sequence>`:

```
<fo:page-sequence axf:footnote-number-reset="page"
axf:footnote-number-format="*" axf:footnote-number-initial="1" . . .>
```

The template for footnotes:

```
<xsl:template match="footnote">
<fo:footnote>
<fo:inline><axf:footnote-number id="{generate-id()}"></fo:inline>
<fo:footnote-body>
<fo:list-block><fo:list-item>
<fo:list-item-label>
<fo:block><axf:footnote-number-citation ref-id="{generate-id()}"></fo:block>
</fo:list-item-label>
<fo:list-item-body><fo:block>. . .</fo:block></fo:list-item-body>
</fo:list-item></fo:list-block></fo:footnote-body></fo:footnote>
</xsl:template>
```

**Properties:** `id`

**Parent Objects:** `<fo:inline>` inside `<fo:footnote>`

`<axf:footnote-number-citation>`

This extension can be used to reference the number of a footnote generated with `<axf:footnote-number>` and located in the same parent structure level. See the usage example in `<axf:footnote-number>`.

**Properties:** `ref-id`

**Parent Objects:** `<fo:footnote-body>`

## <axf:form>

This extension object serves as a container object for a form action as an Acroform in the PDF output.

Note: Inside an axf: extension object the axf: extension properties omit the namespace label axf:.

For Acroforms see the detailed descriptions in Acroform within XSL/CSS Extensions within Features of the AHF Online Manual.

**Properties:** [external-destination](#), [axf:field-submit-method](#), [axf:field-submit-coordinates](#)

**Parent Objects:** [<fo:block>](#)

**Child Objects:** [<fo:block>](#)

## <axf:form-field>

This extension object generates an inline Acroform form field in the PDF output. The form field is inactive if axf:form-field does not stand inside [<axf:form>](#) and the [axf:action-type](#) property has the value submit or reset. All other properties also work outside axf:form.

Note: Inside an axf: extension object, the axf: extension properties omit the axf: namespace label.

**Properties:** [axf:action-type](#), [axf:field-button-face](#), [axf:field-button-face-down](#), [axf:field-button-face-rollover](#), [axf:field-button-icon](#), [axf:field-button-icon-down](#), [axf:field-button-icon-rollover](#), [axf:field-button-layout](#), [axf:field-checked](#), [axf:field-checked-style](#), [axf:field-default-text](#), [axf:field-description](#), [axf:field-editable](#), [axf:field-flags](#), [axf:field-font-size](#), [axf:field-format](#), [axf:field-format-category](#), [axf:field-lock-document](#), [axf:field-maxlen](#), [axf:field-multiline](#), [axf:field-multiple](#), [axf:field-name](#), [axf:field-name-suffix-page-number](#), [axf:field-password](#), [axf:field-readonly](#), [axf:field-required](#), [axf:field-scroll](#), [axf:field-text-align](#), [axf:field-top-index](#), [axf:field-type](#), [width](#), [height](#)

**Parent Objects:** <fo:block>, <axf:form>

**Child Objects:** The object remains empty or contains any number of <axf:form-field-option> or/and <axf:form-field-event>.

<axf:form-field-event>

This extension object is used to specify an action corresponding to the event. Both properties (name and [axf:action-type](#)) must be specified.

The name property can take the following values: MouseUp, MouseDown, MouseEnter, MouseExit, OnFocus or OnBlur (not case-sensitive).

If [axf:action-type](#)="javascript" is specified, the JavaScript program is processed in the content.

**Properties:** name (see the values above), [axf:action-type](#)

**Parent Objects:** <axf:form-field>

<axf:form-field-option>

**Common Usage:** Specifies the component elements of the list box, combo box.

**Properties:** [axf:field-selected](#)

**Parent Objects:** <axf:form-field>

<axf:formatter-config>

**Common Usage:** Specifies additional option setting information. This element does not generate an area.

**Properties:** src

**Parent Objects:** <fo:declarations>

**Childs:** %axs-settings; is an element which belongs to the name space <http://www.antennahouse.com/names/XSL/Settings>. The properties in the Option Setting File are included in the name space, however currently only the following elements and their child elements can

be described. The other elements will be disregarded. Also, some specifications, such as those related to initialization, are ignored.

- `<formatter-settings>`
- `<pdf-settings>`
- `<text-settings>`
- `<svg-settings>`
- `<ps-settings>`
- `<mathml-settings>`
- `<cgm-settings>`

Example:

```
<fo:declarations>
  <axf:formatter-config src="add-settings.xml"
    xmlns:axs="http://www.antennahouse.com/names/XSL/Settings">
    <axs:pdf-settings pdf-version="PDF1.6" tagged-pdf="true"/>
  </axf:formatter-config>
</fo:declarations>
```

In this example, an additional option setting file, `add-settings.xml` is specified, and then PDF setting is added.

Remarks:

Usually, the additional setting by `<axf:formatter-config>` never influences the formatting process of the following document. However, when the following settings are done by GUI, the additional settings will be reflected on the default settings, then reflected on the formatting of the following document.

- Format Option Setting
- PDF Option Setting
- Other Settings
- Import Option Setting
- Export Option Setting

The addition option setting information by `<axf:formatter-config>` is not reflected in the AreaTree.

When `axf-formatter-config="false"` is specified in the Option Setting File (see [section 2.1](#)), the contents of `<axf:formatter-config>` will be ignored.

`<axf:hyphenation-info>`

**Common Usage:** Specifies additional hyphenation information. This element does not generate an area.

The language property is required to indicate which language this element is associated with. It is not available to do hyphenation if the specified language is originally not hyphenated.

The `src` property can optionally specify the exception dictionary. It's an additional setting to the original dictionary and effective only in this FO. There is no language dependency constraint for the file name unlike the original dictionary. It is a relative base-uri for the relative path. It's not a relative path to the environment valuable of the hyphenation dictionary. `<exceptions>` in the specified dictionary is evaluated. When multiple words of the same spelling are registered, the information on the last registered word becomes effective.

### **Output Glyph by SOFT HYPHEN**

Generally SOFT HYPHEN (U+00AD) is displayed only when the line breaks and is not displayed when the line does not break. However in this processing, it is often the case that the glyph assigned to U+00AD may not be printed when the fonts such as pictographic characters are used. AH XSL Formatter implements the extension property [axf:soft-hyphen-treatment](#) which makes it possible to eliminate this problem.

Example:

```
<fo:block axf:soft-hyphen-treatment="preserve"
  font-family="Wingdings">abcxyz</fo:block>
```

**Properties:** src, [language](#)

**Parent Objects:** <fo:declarations>

**Childs:** %axh-elements; is an element which belongs to the name space <http://www.antennahouse.com/names/XSL/Hyphenations>. The elements in the Hyphenation Exception Dictionary are included in the name space, however currently only <exceptions> (and its child element, <hyphen>) can be described.

Example:

```
<fo:declarations>
  <axf:hyphenation-info language="eng" src="en-add.xml"
    xmlns:axs="http://www.antennahouse.com/names/XSL/Hyphenations">
    <axh:exceptions>
      abc-defg
    </axh:exceptions>
  </axf:hyphenation-info>
</fo:declarations>
```

In this example, an additional exception dictionary, en-add.xml is specified for English language, and then the exception hyphenation is specified for the word spelled “abcdefg”.

**Caution:** In the example above, do not use the following setting. (<hyphen/> is disregarded):

```
abc<hyphen/>defg
```

Instead, make sure to specify:

```
abc<axh:hyphen/>defg
```

```
<axf:output-volume-info>
```

This extension object allows PDF output in separate volumes at the level of a page sequence (<fo:page-sequence>). axf:output-volume-info is placed directly below <fo:root> at an arbitrary position before the first fo:page-sequence. The object is only effective if the PDF is stored in

files. The file names are automatically formed based on the output file name. In addition to the `axf:output-volume-info` specification in the FO, a `multivol` parameter must be set externally. When using the graphical user interface (GUI) this is done in the PDF Output Dialog.

When you want to specify the language for each PDF output in separate volume, specify the language in `<fo:page-sequence>` with the `language` property.

See also Multiple Separate Volume in XSL/CSS Extensions in Features of the AHF Online Manual.

**Properties:** `format`, `axf:bookmark-include`, `axf:initial-volume-number`, `axf:document-info-include`

**Parent Objects:** `<fo:root>`

`<axf:ruby>`

Ruby is a typographic support for pronouncing complex characters in the CJK languages. Antennahouse provides the typographic implementation for different Ruby types. The use of Ruby extension is comprehensively documented with examples in Ruby Extension (file: `ahf:ruby.html`) in the AHF Online Manual. A description here is omitted.

**Properties:** `axf:ruby-align`, `axf:ruby-position`, `axf:ruby-offset`, `axf:ruby-overhang`, `axf:ruby-limit-overhang`, `axf:ruby-limit-space`, `axf:ruby-small-kana`, `axf:ruby-font-family`, `axf:ruby-font-size`, `axf:ruby-minimum-font-size`, `axf:ruby-font-style`, `axf:ruby-font-weight`, `axf:ruby-font-stretch`, `axf:ruby-condense`, `axf:ruby-color`

**Parent Objects:** `<fo:basic-link>`, `<fo:bidirectional-override>`, `<fo:block>`, `<fo:inline>`

**Child Objects:** `<axf:ruby-base>` followed by `<axf:ruby-text>` (the pairs may occur repeatedly)



### <afx:ruby-base>

The base characters annotated in the <afx:ruby-text> object are placed in this Ruby child object.

**Properties:** none

**Parent Objects:** <afx:ruby>

### <afx:ruby-text>

In this Ruby child object, the base characters contained in the <afx:ruby-base> object are annotated.

**Properties:** none

**Parent Objects:** <afx:ruby>

### <afx:script-font>

Specifies the generic font according to the script. This element does not generate area.

The same setting of script-font in the Option Setting File can be specified. The specification of axf:script-font will be adopted in preference to the setting in the Option Setting File.

**Constraints:**

```
<!ELEMENT axf:script-font EMPTY>
<!ATTLIST axf:script-font script CDATA #REQUIRED>
<!ATTLIST axf:script-font serif CDATA #>IMPLIED>
<!ATTLIST axf:script-font sans-serif CDATA #>IMPLIED>
<!ATTLIST axf:script-font monospace CDATA #>IMPLIED>
<!ATTLIST axf:script-font cursive CDATA #>IMPLIED>
<!ATTLIST axf:script-font fantasy CDATA #>IMPLIED>
<!ATTLIST axf:script-font fallback CDATA #>IMPLIED>
```

**Parent Objects:** <fo:declarations>

<axf:space-after-punctuation>  
<axf:space-before-punctuation>  
<axf:space-between-digit-and-punctuation>  
<axf:space-between-punctuation-and-digit>

These are extension objects, especially for European typography requirements: space before/after punctuation, space between numeral and punctuation, space between punctuation and numeral.

An example of the spaces in a French-language text:

```
<fo:declarations>  
<axf:space-before-punctuation code="?" space="1 div 3" language="fr"/>  
<axf:space-before-punctuation code="!" space="1 div 3" language="fr"/>  
<axf:space-before-punctuation code=";" space="1 div 3" language="fr"/>  
<axf:space-before-punctuation code=":" space="1 div 4" language="fr"/>  
<axf:space-before-punctuation code="»" space="1 div 4" language="fr"/>  
<axf:space-after-punctuation code="«" space="1 div 4" language="fr"/>  
<axf:space-between-punctuation-and-digit code="+" space="thin" language="fr"/>  
<axf:space-between-punctuation-and-digit code="-" space="thin" language="fr"/>  
<axf:space-between-punctuation-and-digit code="±" space="thin" language="fr"/>  
<axf:space-between-digit-and-punctuation code="%" space="thin" language="fr"/>  
<axf:space-between-digit-and-punctuation code="°C" space="thin" language="fr"/>  
<axf:space-between-digit-and-punctuation code="°F" space="thin" language="fr"/>  
</fo:declarations>
```

These specifications can alternatively be made in the external file (see ) with the option settings.

**Properties:** [language](#), [space](#) (AHF specific), [code](#) (AHF specific)

**Parent Objects:** [<fo:declarations>](#)

<axf:spread-page-master>

Specifies the page master of a double page (two pages displayed facing). In addition to the page area specified with a page master

(<fo:simple-page-master>), an area can also be specified for such double pages in which the contents span the width of both pages.

**Properties:** end-indent, margin-top, margin-bottom, margin-left, margin-right, master-name, reference-orientation, space-before, space-after, start-indent, writing-mode

**AHF Properties:** axf:left-page-master-reference, axf:right-page-master-reference

**Parent Objects:** <fo:layout-master-set>

**Child Objects:** <axf:spread-region>

**Application example:** A document with a title page (right), a double page (left-right), and a page sequence with left and right pages, with a left page completing the document. The content flow goes through all pages of this page sequence.

The wrapper for this document is the root element (<fo:root>) with the namespace declarations for XSL-FO and the AHF extensions:

```
<?xml version="1.0" encoding="UTF-8"?>
<fo:root xmlns:fo="http://www.w3.org/1999/XSL/Format"
  xmlns:axf="http://www.antennahouse.com/names/XSL/Extensions">
</fo:root>
```

The other specifications stand inside the root element <fo:root>.

The fo:layout-master-set contains the page masters

(<fo:simple-page-master>) for the title page, right and left pages, as

well as the page master <axf:spread-page-master> with the layout

specifications. In addition, there is a page sequence template

(<fo:page-sequence-master>) for the right title page, a double page and

following left and right pages:

```
<fo:layout-master-set>
<fo:simple-page-master master-name="Title" page-width="210mm" page-height="297mm">
<fo:region-body margin="36pt" border="1pt solid black" padding="6pt"/>
<fo:region-before region-name="Header-right" extent="36pt" padding-end="36pt"
```

```

        display-align="center"/>
<fo:region-after extent="36pt" padding-end="36pt" display-align="center"/>
</fo:simple-page-master>
<fo:simple-page-master master-name="Page-right" page-width="210mm"
    page-height="297mm">
<fo:region-body margin="36pt" border="1pt solid black" padding="6pt"/>
<fo:region-before region-name="Header-right" extent="36pt" padding-end="36pt"
    display-align="center"/>
<fo:region-after extent="36pt" padding-end="36pt" display-align="center"/>
</fo:simple-page-master>
<fo:simple-page-master master-name="Page-left" page-width="210mm"
    page-height="297mm">
    <fo:region-body margin="36pt" border="1pt solid black" padding="6pt"/>
<fo:region-before region-name="Header-left" extent="36pt" padding-start="36pt"
    display-align="center"/>
<fo:region-after extent="36pt" padding-start="36pt" display-align="center"/>
</fo:simple-page-master>
<!-- Page master for double pages -->
<axf:spread-page-master master-name="Double-pages"
    left-page-master-reference="Page-left"
    right-page-master-reference="Page-right">
<axf:spread-region region-name="spread" margin-top="36pt" margin-left="36pt"
    margin-right="36pt" margin-bottom="48mm"/>
</axf:spread-page-master>
<!-- Double page sequence template -->
<fo:page-sequence-master master-name="With-double-page">
<fo:single-page-master-reference master-reference="Title"/>
<fo:repeatable-page-master-reference master-reference="Double-pages"
    maximum-repeats="2"/>
<fo:repeatable-page-master-alternatives>

```

```

<fo:conditional-page-master-reference master-reference="Page-left"
  odd-or-even="even"/>
<fo:conditional-page-master-reference master-reference="Page-right"
  odd-or-even="odd"/>
</fo:repeatable-page-master-alternatives>
</fo:page-sequence-master>
</fo:layout-master-set>

```

Then follows the page sequence ([<fo:page-sequence>](#)) for the document, ending with a left page:

```

<fo:page-sequence master-reference="With-double-page"
  force-page-count="end-on-even">
  <fo:static-content flow-name="Header-left">
    <fo:block>left page heading</fo:block>
  </fo:static-content>
  <fo:static-content flow-name="Header-right">
    <fo:block text-align="right">right page heading</fo:block>
  </fo:static-content>
  <fo:static-content flow-name="xsl-region-after">
    <fo:block text-align="outside"><fo:page-number/></fo:block>
  </fo:static-content>
  <fo:flow flow-name="spread">
    <fo:block text-align="center" font-weight="bold">
      This is a Spanned Title
    </fo:block>
    <fo:table width="100%" border="1pt solid red" space-before="12pt"
      background-color="yellow">
      <fo:table-column number-columns-repeated="10"
        column-width="10%" border-right="1pt solid black" />
      <fo:table-header>
      <fo:table-row border-bottom="1pt solid black">

```

```

<fo:table-cell number-columns-spanned="10">
<fo:block text-align="center" font-weight="bold">Table Caption</fo:block>
</fo:table-cell>
</fo:table-row>
</fo:table-header>
<fo:table-body>
<fo:table-row border-bottom="1pt solid black">
<fo:table-cell><fo:block text-align="center">Content</fo:block></fo:table-cell>
<fo:table-cell/><fo:table-cell/><fo:table-cell/><fo:table-cell/><fo:table-cell/>
<fo:table-cell/><fo:table-cell/><fo:table-cell/><fo:table-cell/>
</fo:table-row>
</fo:table-body>
</fo:table>
</fo:flow>
<fo:flow flow-name="xsl-region-body">
<fo:block text-align="center" font-weight="bold" color="red">Title</fo:block>
<fo:block background-color="silver">
<fo:block>Content Content Content Content Content Content</fo:block>
<fo:block>[More content for more pages!] </fo:block>
</fo:block>
</fo:flow>
</fo:page-sequence>

```

Please note: The double page is generated only if the text flow contains enough material to fill the flow area.

`<axf:spread-region>`

This object sets the spanning area of a double page (two facing pages) within a double page template (`<axf:spread-page-master>`).

**Properties:** [absolute-position](#), [background-attachment](#), [background-color](#), [background-image](#), [background-repeat](#), [background-position-horizontal](#),

background-position-vertical, border-before-color, border-before-style, border-before-width, border-after-color, border-after-style, border-after-width, border-start-color, border-start-style, border-start-width, border-end-color, border-end-style, border-end-width, border-top-color, border-top-style, border-top-width, border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, bottom, end-indent, height, left, margin-top, margin-bottom, margin-left, margin-right, overflow, padding-before, padding-after, padding-start, padding-end, padding-top, padding-bottom, padding-left, padding-right, region-name, reference-orientation, right, space-before, space-after, start-indent, top, width

For [writing-mode](#) see the notes in the description of this property!

**Parent Objects:** [<axf:spread-page-master>](#)

[<axf:tab>](#)

the tab character (U+0009) will be normalized to the white space (U+0020); therefore, the character normally has a meaning of just a white space. However, there are a lot of document structures that the tab character aligns the text, such as JIS X 4051:2004. AH XSL Formatter provides the extension that enables to express the tab structure.

CAUTION: A line which contains a tab will be forced to [text-align="start"](#).

CAUTION: We cannot guarantee the best result of a tab processing in case a text requires the BIDI processing.

Common Usage: Places a white space up to a tab stop position. Specify the tab stop position with [axf:tab-stops](#).

**Properties:** [axf:tab-align](#)

**Parent Objects:** practically useful in [<fo:block>](#)

`<axf:table-cell-repeated-marker>`

Common Usage: Specifies the contents to be displayed in the split cell. When `axf:repeat-cell-content-at-break="true"` is specified and `<axf:table-cell-repeated-marker>` is contained in the cell, the contents of `<axf:table-cell-repeated-marker>` is used instead of the contents of the cell.

**Properties:** none

**Parent Objects:** `<fo:table-cell>`

**Contents:** (`#PCDATA` | `<fo:inline>` | `<fo:block>`)\*

## 2.3 AHF Extensions: Properties

The extension properties are sorted alphabetically. After a short description of the function, the allowed environments are enumerated in which the given property may be used.

After that, the possible property values and the default setting are named. The default sets the behavior of the AH XSL formatter when the given property is not specified. Values delimited by `<>` render property value formats (see the explanations in section ).

Finally, whether the specified property value inherits in the XML hierarchy or not is specified.

The detailed function descriptions and examples for the application are taken from the AHF Online Manual. For some properties, further application details and examples are given in the AHF Online Manual.

`axf:abbreviation-character-count`

Specifies the maximum number of characters considered an abbreviation.



Values have the following meanings:

**auto:** The value specified by `abbreviation-character-count` in the Option Setting File is adopted.

**<number>:** Specifies the number of characters considered an abbreviation.

**Applies to:** `<fo:block>`

**Values:** auto | `<number>`

**Initial:** auto

**Inherited:** yes

#### axf:action-type

This extension is used to set the behavior of an external hyperlink or form action.

The goto value causes an internal link, gotor causes a link into a PDF document. launch opens the target as a file. uri opens the target as a URI (on the web). The reset and submit values can only be used for the `<axf:form-field>` extension object. reset resets a form field, submit dispatches a form field as a form action. The javascript value triggers a JavaScript action. The default value auto triggers a system specific action.

If the link does not target a local file, the action type is always URI. If the action type is unspecified or set to the default auto, the target specified by a relative addressing is treated according to the setting of use-launch-for-relative-uri in the AH XSL Formatter PDF Output Settings either as action type Open the file (for value true) or as World Wide Web link (for value false). For an absolute address, the action type is always World Wide Web link.

A more detailed description of PDF link behavior can be found in the AH XSL Formatter Online Manual (file: ahf-ext.html#axf.action-type).

**Applies to:** `<fo:basic-link>`, `<axf:form-field>`, `<axf:form-field-event>`

**Values:** goto | gotor | launch | uri | reset | submit | javascript | auto

**Initial:** auto

**Inherited:** no

axf:adjust-last-line-spacing

Adjusts the spacing on the last line.

Values have the following meanings:

- false: Does nothing.
- true: Reduces the difference between the spacing on the last line and the spacing on the second-last line.

This processing applies under the following conditions:

- `text-align` is "justify"
- `text-align-last` is not "justify"
- When the algorithm of Breaking Paragraphs into Lines is applied, such as when `axf:line-break="bpil"` is specified

If the result of adjusting the spacing satisfies the condition of `axf:flush-zone`, `axf:flush-zone` will be applied.

**Applies to:** `<fo:block>`

**Values:** false | true

**Initial:** false

**Inherited:** yes

axf:alttext

Specifies the alternate text of an image or link. Effective when outputting Tagged PDF.

**Applies to:** `<fo:external-graphic>`, `<fo:instream-foreign-object>`, `<fo:basic-link>`

**Values:** `<string>`

**Initial:** empty string

**Inherited:** no

axf:annotation-author

Specifies the author of the annotation.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** no

axf:annotation-border-style

Specifies the border style of the free text annotation.

The following can be specified for <border-style>: solid, dotted, dashed, dot-dash, dot-dot-dash. If anything else is specified, it is considered solid.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <border-style>

**Initial:** solid

**Inherited:** no

axf:annotation-border-width

Specifies the border width of the free text annotation.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <border-width>

**Initial:** 0pt

**Inherited:** no

axf:annotation-border-color

Specifies the border color of the free text annotation.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <color>

**Initial:** the value for [axf:annotation-text-color](#)

**Inherited:** no

axf:annotation-color

Specifies the color used for the background of the annotation.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <color> | none

**Initial:** none

**Inherited:** no

axf:annotation-contents

Specifies the content of the annotation.

Specifies the character string to be displayed for an <fo:basic-link> or HTML <a> or when [axf:annotation-type](#) specifies one of the following annotation types: Text, FreeText, Stamp, Fileattachment.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** no

axf:annotation-file-name

Specifies the alternate file name to output when specifying the file attachment annotation.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** no

axf:annotation-file-attachment

Specifies the file with which file attachment annotation is related.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <uri-specification>

**Initial:** empty string

**Inherited:** no

The data scheme (defined in [RFC397](#)) can be specified. At that time, [axf:annotation-file-name](#) must be specified.

axf:annotation-createdate

Specifies the annotation creation date.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** no

axf:annotation-modifydate

Specifies the annotation modification date.

It is the value of /M in the annotation dictionary. If omitted, it is considered the value of modifydate in <axf:document-info>. If axf:annotation-modifydate is older than axf:annotation-createdate, it will be adjusted to axf:annotation-createdate.

The date format is a string in the ISO 8601 format. The following format of this standard is accepted:

YYYY-MM-DD(Thh(:mm(:ss)?)?)?(Z|±hh(:mm)?)?

The numbers 0 to 9 are given to Y, M, D, h, m and s, either “+” or “-” is given to “±”. Date “-” and time “:” separators may be omitted. When time zone is omitted, it is considered the system time zone (local time). Even dates that do not exist are appropriately corrected. The setting is ignored for dates before 1970, invalid strings, and dates that cannot be corrected.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** no

#### afx:annotation-flags

Specifies the flag of the annotation. Specifies the following character sequences by enumerating using the white space: Invisible, Hidden, Print, NoZoom, NoRotate, NoView, ReadOnly, Locked, ToggleNoView, LockedContents. They are case insensitive. See also ISO 32000-1 or ISO 32000-2 to learn more.

**Applies to:** See also ISO 32000-1 or ISO 32000-2 to learn more.

**Values:** <string>

**Initial:** empty string

**Inherited:** no

#### afx:annotation-font-family

Specifies the font family of the free text annotation.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <string>

**Initial:** depends on user agent (PDF-Reader)

**Inherited:** no

#### afx:annotation-font-size

Specifies the font size of the free text annotation.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <absolute-size> | <relative-size> | <length> | <percentage>

**Initial:** depends on user agent (PDF-Reader)

**Inherited:** no

#### afx:annotation-font-style

Specifies whether to make the font of the free text annotation italic.

**Applies to:** all block-level and inline-level formatting objects

**Values:** normal | italic

**Initial:** normal

**Inherited:** no

axf:annotation-font-weight

Specifies the font weight of the free text annotation.

**Applies to:** all block-level and inline-level formatting objects

**Values:** normal | bold

**Initial:** normal

**Inherited:** no

axf:annotation-height

Specifies the height of the annotation. This property is used for the height of pop-up and the height of rubber stamp annotations.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <length> | auto

**Initial:** auto

**Inherited:** no

axf:annotation-icon-name

Specifies the name of the icon used for displaying the annotation.

Although arbitrary name can be specified for the icon used for the display of annotations, whether it can be displayed or not depends on the viewer application of a document. The annotation type ([axf:annotation-type](#)) shows the standard name which can be specified.

– Text:

Standard names are as follows: Comment, Help, Insert, Key, NewParagraph, Note, Paragraph. Empty string is considered Note.

– Stamp:

Standard names are as follows: Approved, AsIs, Confidential, Departmental, Draft, Experimental, Expired, Final, ForComment, ForPublicRelease,

NotApproved, NotForPublicRelease, Sold, TopSecret. Empty string is considered Draft.

- FileAttachment:

Standard names are as follows: Graph, Paperclip, , Tag. Empty string is considered PushPin.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** no

axf:annotation-open

Specifies the initial state of the annotation.

**Applies to:** all block-level and inline-level formatting objects

**Values:** true | false

**Initial:** false

**Inherited:** no

axf:annotation-position-horizontal

Specifies the horizontal position of the annotation. The position specified is the distance from the left edge of the region and is used for the position of pop-up or icons and the position of rubber stamp annotations.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <length>

**Initial:** 0pt

**Inherited:** no

axf:annotation-position-vertical

Specifies the vertical position of the annotation. The position specified is the distance from the top edge of the region and is used for



the position of pop-up or icons and the position of rubber stamp annotations.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <length>

**Initial:** 0pt

**Inherited:** no

afx:annotation-text-align

Specifies the alignment of the free text annotation.

**Applies to:** all block-level and inline-level formatting objects

**Values:** left | center | right

**Initial:** left

**Inherited:** no

afx:annotation-text-color

Specifies the color of the free text annotation.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <color>

**Initial:** depends on user agent (PDF-Reader)

**Inherited:** no

afx:annotation-title

Specifies the title of the annotation. This property is effective with PDF1.5 or later.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** no

#### axf:annotation-type

Specifies the type of the annotation.

Any of the following types of the annotation can be specified:

- empty string: No annotations.
- Text: Text annotation.
- FreeText: Free text annotation.
- Stamp: Rubber stamp annotation.
- FileAttachment: File attachment annotation.

Character strings are case insensitive.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** no

#### axf:annotation-width

Specifies the width of the annotation. This property is used for the width of pop-up and the width of rubber stamp annotations.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <length> | auto

**Initial:** auto

**Inherited:** no

#### axf:append-non-end-of-line-characters

Specifies the non-end-of-line-characters to append. The characters included in <string> can be eliminated from the non-starter-characters. If the specified characters are also specified to [axf:append-non-starter-characters](#) in the same tag as well, the effect is not guaranteed. White space characters are disregarded even though they are specified. The initial value of non-starter-characters can be set by [append-non-starter-characters](#) in the Option Setting File.

**Applies to:** [<fo:page-sequence>](#)

**Values:** [<string>](#)

**Initial:** empty string

**Inherited:** no

[axf:append-non-starter-characters](#)

Specifies the non-starter-characters to append. The characters included in [<string>](#) can be appended to the non-starter-characters. If the specified characters are also specified in [axf:except-non-starter-characters](#) as well in the same tag, the effect could be wrong. White space characters are disregarded even though they are specified. Closing parentheses and punctuation marks are automatically treated as except-non-starter characters without adding them. The initial value of non-starter-characters can be set by [append-non-starter-characters](#) in the Option Setting File.

**Applies to:** [<fo:page-sequence>](#)

**Values:** [<string>](#)

**Initial:** empty string

**Inherited:** no

[axf:assumed-page-number](#)

Specifies the assumed page number. When [<fo:page-number-citation>](#) appears, the reference area is sometimes undecided. In evaluation of [fo:page-number-citation](#), the temporary area is secured first, and when a page number is decided, it is adjusted to the right contents. Since the size of an area may change at this time, the formatted result is sometimes not desirable. For example, when an area becomes narrow, it seems that there is an unnecessary line break, and condition that a character will overflow if an area becomes large appears. [axf:assumed-page-number](#) gives the assumed page number at that time.

AH XSL Formatter expects the area of at least three-digit page number and formats temporarily. What is necessary will be just to specify `axf:assumed-page-number="99"` etc., when the page number is clearly less than that.

**Applies to:** all formatting objects

**Values:** <number>

**Initial:** N/A

**Inherited:** yes

`axf:avoid-widow-words`

Specifies spacing behavior between words or characters so that the last line of the paragraph does not have only one word left (one character for CJK).

Values have the following meanings:

`false` does nothing.

`true` adjusts the spacing so that the last line of the paragraph does not have only one word left (one character for CJK).

When `axf:text-justify-trim="auto"` is specified, it is considered that `axf:text-justify-trim="ideograph inter-word"` is specified.

For <length> and <percentage> see the corresponding specifications in the AHF Online Manual.

**Applies to:** <fo:block>

**Values:** `false` | `true` | <length> | <percentage>

**Initial:** `false`

**Inherited:** yes

`axf:avoid-widow-words-cjk-punctuation`

Specifies whether to include the last punctuation mark and count them in one character when `"true"` is specified in CJK. For the meaning

of the values, see the corresponding specifications in the AHF Online Manual.

**Applies to:** <fo:block>

**Values:** auto | true | false <string>

**Initial:** auto

**Inherited:** yes

axf:intrude-into-punctuation

Intrudes the inline element into the punctuation. For the meaning of the values, see the corresponding specifications in the AHF Online Manual.

**Applies to:** inline elements

**Values:** none | [start || end]

**Initial:** none

**Inherited:** yes

axf:auto-letter-spacing

Changes letter-spacing depending on the number of characters. For the meaning of the values, see the corresponding specifications in the AHF Online Manual.

**Applies to:** inline-level formatting objects

**Values:** [none | <length> | <percentage> ]\*

**Initial:** none

**Inherited:** no

axf:background-clip

This property specifies the display area of the image (box or content only).

**Applies to:** <fo:simple-page-master>, <fo:page-sequence>, all formatting objects

**Values:** [ border-box | padding-box | content-box ]#

**Initial:** padding-box

**Inherited:** no

axf:background-image-resolution

Specifies the resolution of a background image.

Values have the following meanings:

**normal:** Depends on the default value of the system. It's the value specified as `pxpi` in the Option Setting File. Ignores the actual resolution of an image.

**from-image** uses the actual resolution of an image. When an image does not have the resolution, it will follow the dpi specification. If nothing is specified, it is the same as **normal**.

**<dpi>**: Specifies the resolution (dpi). Ignores the actual resolution of an image.

The resolution of a non-background image is specified by `axf:image-resolution`. In case of vector images, such as SVG, it is applied to numerical values with no units. **from-image** is ignored.

**Applies to:** `<fo:simple-page-master>`, `<fo:page-sequence>`, all formatting objects

**Values:** [normal | [ from-image || <dpi> ]]#

**Initial:** from-image

**Inherited:** no

axf:background-origin

This property specifies the positioning of the original image. If this property is set, the simultaneous setting of `background-attachment` is contradictory.

**Applies to:** `<fo:simple-page-master>`, `<fo:page-sequence>`, all formatting objects

**Values:** [ border-box | padding-box | content-box ]#

**Initial:** padding-box

**Inherited:** no

axf:background-content-type

Specifies the content type of a background image.

**Applies to:** <fo:simple-page-master>, <fo:page-sequence>, all formatting objects

**Values:** [<string> | auto]#

**Initial:** auto

**Inherited:** no

axf:background-size

See <https://www.w3.org/TR/2017/CR-css-backgrounds-3-20171017/#the-background-size>

**Applies to:** <fo:simple-page-master>, <fo:page-sequence>, all formatting objects

**Values:** [ [ <length> | <percentage> | auto ]{1,2} | cover | contain ]#

**Initial:** auto

**Inherited:** no

axf:balanced-text-align

Specifies whether to balance the entire block including the last line.

Values have the following meanings:

- true: The entire block is adjusted to be balanced including the last line.
- false: Does not balance the last line.
- auto: When applied to a block with any of the following conditions, the entire block including the last line is adjusted to be balanced.
  - `text-align="justify"` and `text-align-last="justify"`

- `text-align="center"` and `text-align-last="center"`

This property is only valid when the line breaking algorithm of Breaking Paragraphs into Lines is applied, such as when `axf:line-break="bpil"` is specified. Otherwise it is considered false.

**Applies to:** `<fo:block>`

**Values:** true | false | auto

**Initial:** auto

**Inherited:** yes

`axf:baseline-block-snap`

This property specifies how to align blocks other than normal line boxes, such as headings, figures and tables, on the baseline grid.

See `axf:baseline-grid` for usage.

Values have the following meanings:

- none: The block is not aligned with the baseline grid.
- auto: Same as before on top of column, same as after at bottom of column, otherwise center.
- before: The before edge of the block is aligned with a text-before-edge baseline on the baseline grid.
- after: The after edge of the block is aligned with a text-after-edge baseline on the baseline grid.
- center: The block is centered between a text-before-edge and a text-after-edge baselines on the baseline grid.
- border-box: The border edge is used to align the block on the baseline grid.
- margin-box: The margin edge is used to align the block on the baseline grid.

CAUTION: `axf:baseline-block-snap` is valid when `axf:baseline-grid` is specified in the parent block of the block where it is specified.

**Applies to:** block-level-elements



**Values:** none | [auto | before | after | center] || [border-box | margin-box]

**Initial:** auto border-box

**Inherited:** no

axf:baseline-grid

Sets or clears the baseline grid.

Inside the area line that a baseline grid is set, the lines are aligned with baselines on the baseline grid. Half-leading is not added before the first line and after the last line so that the em-box edges are aligned with the before and after edges of the content box.

CAUTION: axf:baseline-grid works within the block where it is specified. The block itself depends on the parent's block.

The baseline grid is not available in the area with [display-align](#) other than auto.

- normal: Neither sets nor clears the baseline grid.
- none: Clears the baseline grid and the content will not align with a baseline grid.
- new: Sets a new baseline grid. The new baseline grid is established by using the font and the line-height settings of this element.
- root: Sets the baseline grid defined by the root element. The root baseline grid is defined by using the font and the line-height settings of the root element.

An XSL-FO example with baseline grids can be found in the Online Manual.

**Applies to:** block-level formatting objects, [<fo:flow>](#), and [<fo:static-content>](#)/block-containers

**Values:** normal | none | root | new

**Initial:** normal

**Inherited:** no

## axf:base-uri

Specifies the location which becomes the base of relative URI.

The `axf:base-uri` is applied to all relative URI in a document. When making links using `<fo:basic-link>` and specify relative URI, the location that is specified using `axf:base-uri` is interpreted to be base URI. If this property is omitted or this has empty string, the base location is interpreted as current XML file.

An example can be found in the Online Manual.

**Applies to:** all formatting objects

**Values:** `<uri-specification>`

**Initial:** empty string

**Inherited:** yes

## axf:bleed

### axf:bleed-bottom

### axf:bleed-left

### axf:bleed-right

### axf:bleed-top

Specifies the width of the bleed area for cutting off.

The area of the bleed is taken outside the trim size. In order to specify the same values vertically and horizontally, `axf:bleed` can be used.

In order to specify individual values, `axf:bleed-top`, `axf:bleed-bottom`, `axf:bleed-left` and `axf:bleed-right` can be used. When `axf:bleed` and others are specified simultaneously, individual `axf:bleed-*` properties take priority.

**Applies to:** `<fo:simple-page-master>`

**Values:** `<length>`

**Initial:** 0pt

**Inherited:** no

## axf:bookmark-include

Specifies how to include bookmarks in multi separate volume.

CAUTION: It is invalid for bookmarks created by `<fo:bookmark>`. Use `axf:outline-*`.

- first: Adds a bookmark to the first separate volume.
- all: Adds bookmarks to all the separate volumes.
- separate: Adds each bookmark to each separate volume. Bookmarks are added to the volume where `axf:outline-level="1"` appears. The bookmark that goes across the volume is added to the previous volume. For that reason, the external link to the other volume may be included even though `axf:bookmark-include="separate"` is specified. Bookmarks grouped by `axf:outline-group` are attached to the last separate volume.
- separate-group: Same as separate, but also adds grouped bookmarks to each volume.

**Applies to:** `<axf:output-volume-info>`

**Values:** first | all | separate | separate-group

**Initial:** separate

**Inherited:** no

## axf:border-connection-form

Specifies the shape of the connecting portion of borders.

In the table of `border-collapse="collapse"`, `axf:border-connection-form` specified in `<fo:table-row>`, `<fo:table-cell>`, etc. in that table is invalid.

The one specified in `<fo:table>` is adopted.

Values have the following meanings:

- wedge: Connects borders in wedge shape. Forms the X shape at the cross-shaped intersecting portion, and forms the Y shape at the T-shaped intersecting portion.

- mixed: Connects borders with the same thickness in rectangle shape at the T-shaped intersecting portion. Others will be in wedge shape.
- precedence: Draws thick borders to the edge. For the same thickness, draws a stronger border to the edge by the border priority.

**Applies to:** all elements

**Values:** wedge | mixed | precedence

**Initial:** mixed

**Inherited:** yes

axf:border-radius

axf:border-bottom-left-radius

axf:border-bottom-right-radius

axf:border-top-left-radius

axf:border-top-right-radius

Specifies the radii of the rounded corners.

The first value is the horizontal radius (or vertical if vertical writing).

The second value is the other radius. If the second length is omitted it is equal to the first. If either length is less or equal 0, the corner is square, not rounded. When specifying rounding corners for the table, if `border-collapse="collapse"` is specified, `axf:border-radius` is effective only when specified to `<fo:table>`.

If `diagonal` is specified, the diagonal border will be drawn in a straight line without being rounded.

Rounded corners do not apply to the border-style wave.

**Applies to:** all elements which can have borders

**Values:** [`<length>`|`<percentage>`][`<length>`|`<percentage>`]? `diagonal?`

**Initial:** 0

**Inherited:** no

### axf:border-double-thickness

Specifies the line thickness of border-style="double".

In `<value>`, either `<number>` or `<length>` can be specified. The values are outside line width, spacing and inside line width in order from left to right. If the value is omitted, it is considered to be equivalent to the preceding value. Negative values are not available. The line width can directly be specified in `<length>`. We do not guarantee the best result if the total of `<length>` exceeds the border-width. The values in `<number>` is summed and then the total of `<length>` is deducted from the actual border-width for proportional distribution.

For example, if the border-width is 10pt and axf:border-double-thickness="4pt 2 1" is specified, it will be shown as follows:

- Outside line width = 4pt
- Spacing =  $(10\text{pt}-4\text{pt})/(2+1)*2 = 4\text{pt}$
- Inside line width =  $(10\text{pt}-4\text{pt})/(2+1)*1 = 2\text{pt}$

**Applies to:** all elements

**Values:** `<value>` [ `<value>` [ `<value>` ] ]

**Initial:** 1

**Inherited:** yes

### axf:border-triple-thickness

Specifies the line thickness of border-style="triple".

In `<value>`, either `<number>` or `<length>` can be specified. The values are outside line width, spacing, middle line width, spacing, and inside line width in order from left to right. If the value is omitted, it is considered to be equivalent to the preceding value. Negative values are not available. See [axf:border-double-thickness](#) for `<value>`.

**Applies to:** all elements

**Value:** `<value>` {1,5}

**Initial:** 1

**Inherited:** yes

axf: border-wave-form

Specifies the wave form of border-style="wave", border-style="double-wave".

In <value>, either <number> or <length> or auto can be specified. The values are wave form and line width in order from left to right. If the value is auto or omitted, it is considered 6 and 0.125 each. Negative values are not available. The wave form or the line width can directly be specified in <length>. <number> is proportional to the border-width. The third value is effective for double-wave and indicates the wave width. If the value is omitted or auto, it is considered 0.5.

**Applies to:** all elements

**Values:** <value>{1,3}

**Initial:** auto

**Inherited:** yes

axf: box-shadow

Specifies the box shadow.

Values have the following meanings:

- none: No shadow is displayed.
- inset: An inner shadow is displayed.

The meanings of <length>s and a <color> are as follows:

- The first <length> is an offset of a horizontal shadow. It becomes a right-side shadow of a region when a positive value is specified. It becomes a left-side shadow of a region when a negative value is specified.
- The second <length> is an offset of a vertical shadow. It becomes a bottom-side shadow of a region when a positive value is specified.

It becomes a top-side shadow of a region when a negative value is specified.

- The 3rd `<length>` must be a non-negative value and specifies the blur radius. If the value is 0, there is no blur.
- The 4th `<length>` extends a shadow. When a positive value is specified, the region will be expanded. When a negative value is specified, the region will be reduced.
- The color of the shadow can be specified by `<color>`.

CAUTION: The minimum unit of `<length>` which can be specified is  $1\text{in}/96=0.265\text{mm}$ . The value is rounded to its multiple number.

CAUTION: Note the following when you set the blur:

- The blur setting is ignored with the device that cannot output in transparent mode like PDF/X.
- The blur setting is ignored when is specified as false.

**Applies to:** all elements which can have borders

**Values:** none | `[[inset? &&[ <length>{2,4} && <color>?]]#`

**Initial:** none

**Inherited:** no

axf:break-distance

Specifies effective heights for `break-after` and `break-before`.

**Applies to:** block-level formatting objects

**Values:** always | `<length>` | `<percentage>`

The value percentage refer to the height of containing block.

Values have the following meanings:

always: `break-after` and `break-before` are always effective.

`<length>` | `<percentage>`: are effective when the height of the remaining area is less than the specified height.

**Initial:** always

**Inherited:** no

### axf:column-fill

Specifies whether to balance the column height.

Values have the following meanings:

- auto: Do not balance the height. However if `span="all"` is specified, it is balanced before the spanned column.
- balance: Balance the height.

**Applies to:** multi-column elements

**Values:** auto | balance

**Initial:** balance

**Inherited:** no

### axf:column-number-format

Specifies the format of column number. It applies to the format of column number specified by `axf:number-type` property. It can be specified with the same way as `format` property.

**Applies to:** `<fo:page-sequence>`

**Values:** `<string>`

**Initial:** "A"

**Inherited:** no

### axf:column-rule

The shorthand is effective. `axf:column-rule-display` can be included.

**Applies to:** `<fo:region-body>`, `<fo:block-container>`

**Values:** `<border-width>` || `<border-style>` || `<color>` ||

`<axf:column-rule-display>`

**Initial:** see individual properties

**Inherited:** no

### axf:column-rule-align

Specifies the alignment of the column rule.



**Applies to:** <fo:region-body>, <fo:block-container>

**Values:** before | center | after

**Initial:** center

**Inherited:** no

axf:column-rule-color

Specifies the color of the column rule.

**Applies to:** <fo:region-body>, <fo:block-container>

**Values:** <color>

**Initial:** the value of the [color](#) property

**Inherited:** no

axf:column-rule-display

Specifies whether to also display a rule at the place where column gaps do not exist. Suppose contents are only in the left column of three columns.

Values have the following meanings:

- gap: Displays a rule only between existing columns.
- end: Displays a rule at the end side of each existing column. However, the end side of the final column is not included.
- all: Displays rules even between non-existent columns at the end of a page, etc.

**Applies to:** <fo:region-body>, <fo:block-container>

**Values:** gap | end | all

**Initial:** gap

**Inherited:** no

axf:column-rule-length

Specifies the length of the column rule.

In case where the column is short by specifying `span="all"` in FO, that height of the column indicates 100%.

**Applies to:** `<fo:region-body>`, `<fo:block-container>`

**Values:** `<length>` | `<percentage>`

**Initial:** 100%

**Inherited:** no

`axf:column-rule-style`

Specifies the style of the column rule.

**Applies to:** `<fo:region-body>`, `<fo:block-container>`

**Values:** `<border-style>`

**Initial:** none

**Inherited:** no

`axf:column-rule-width`

Specifies the width of the column rule.

**Applies to:** `<fo:region-body>`, `<fo:block-container>`

**Values:** `<border-width>`

**Initial:** medium

**Inherited:** no

`axf:condensed-text-align-last`

Specifies whether to set `text-align-last="justify"` automatically after condensing the overflow.

This feature is only available when:

- Condensing in the block progression dimension.
- font-size or font-stretch condensing is occurring by `axf:overflow-condense`.
- `text-align-last` is not explicitly specified.

Values have the following meanings:

- false: Does nothing.
- true: Sets `text-align-last="justify"`.
- justify: Sets `text-align-last="justify"` when `text-align="justify"` is specified. Whether or not `text-align="justify"` is determined by whether or not the element with the `overflow="condense"` specified is `text-align="justify"`.
- auto: Follows the setting of `condensed-text-align-last` in the Option Settings File.

**Applies to:** all block-level formatting objects

**Values:** false | true | justify | auto

**Initial:** auto

**Inherited:** yes

`axf:crop-area-visibility`

Specifies whether to display the area that is extended beyond the trim size. Specifies whether the area that overflows on the margin specified with `axf:crop-offset` is clipped with the trim size, if there is a bleed area, clipped with the bleed area, or the extended area is displayed.

**Applies to:** `<fo:simple-page-master>`

**Values:** hidden | visible

**Initial:** hidden

**Inherited:** no

`axf:crop-offset`

`axf:crop-offset-bottom`

`axf:crop-offset-left`

`axf:crop-offset-right`

`axf:crop-offset-top`

Specifies the distance from the physical end to the trim size of the output medium.

The trim size is specified by the [page-width](#) and [page-height](#) properties. `axf:crop-offset` is for specifying how much the space is taken outside the trim size. In order to specify the same values vertically and horizontally, `axf:crop-offset` can be used. In order to specify individual values, `axf:crop-offset-top`, `axf:crop-offset-bottom`, `axf:crop-offset-left` and `axf:crop-offset-right` can be used. When `axf:crop-offset` and others are specified simultaneously, individual `axf:crop-offset-*` properties take priority.

CAUTION: If the value of `axf:bleed` is greater than the value of `axf:crop-offset`, `axf:crop-offset` is adjusted to that value. To make the trim size the size of the basic printing image, set `axf:bleed` and `axf:crop-offset` to 0.

**Applies to:** [<fo:simple-page-master>](#)

**Values:** [<length>](#)

**Initial:** 0pt

**Inherited:** no

`axf:destination-type`

Specifies the way a link opens in a link destination.

If nothing specified, it's accounted as `axf:destination-type="xyz-top"`. The case sensitivity is ignored.

The destination type options are described in detail in [Bookmark and Link in XSL/CSS Extensions of the Online Manual](#).

**Applies to:** block level formatting objects

**Values:** [<string>](#)

**Initial:** empty string

**Inherited:** no

`axf:diagonal-border-color`

Specifies the color of the diagonal border.

**Applies to:** all elements which can have borders

**Values:** <color>

**Initial:** the value of the [color](#) property

**Inherited:** yes

`axf:diagonal-border-style`

Specifies the style of the diagonal border.

**Applies to:** all elements which can have borders

**Values:** <border-style>

**Initial:** none

**Inherited:** no

`axf:diagonal-border-width`

Specifies the width of the diagonal border.

**Applies to:** all elements which can have borders

**Values:** <border-width>

**Initial:** medium

**Inherited:** yes

`axf:display-alttext`

Specifies whether to display the alternate text of an image.

Values have the following meanings:

- `false`: The alternate text is not displayed.
- `true`: The alternate text is displayed when the alternate text is specified and no image exists.
- `auto`: The value specified by [display-alttext](#) in the Option Setting File is adopted.

The alternate text is specified by `axf:alttext` in XSL-FO and `alt` in HTML. When the alternate text is displayed, the image is not displayed.

**Applies to:** [<fo:external-graphic>](#) (<img> in HTML)

**Values:** false | true | auto

**Initial:** auto

**Inherited:** yes

axf:document-info-include

Specifies how to include document information in multi separate volume.

Values have the following meanings:

- first: Adds document information to the first separate volume.
- all: Adds document information to all the separate volumes.

See [<axf:document-info>](#).

**Applies to:** [<axf:output-volume-info>](#)

**Values:** first | all

**Initial:** first

**Inherited:** no

axf:double-hyphen-translineation

Specifies whether to place a hyphen also at the start of the line when breaking lines at a hyphen.

**Applies to:** [<fo:block>](#)

**Values:** auto | true | false

**Initial:** auto

**Inherited:** yes

Values have the following meanings:

- auto: Works as true when the language is specified by [double-hyphen-translineation](#) in the Option Setting File.
- true: Place a hyphen also at the start of the line when a line break occurs at a hyphen.

- false: Does not place a hyphen at the start of the line when a line break occurs at a hyphen.

This setting is effective when `hyphenate="true"` is specified.

#### `axf:except-non-end-of-line-characters`

Specifies the non-end-of-line-characters to eliminate.

The characters included in `<string>` can be eliminated from the non-end-of-line-characters. If the specified characters are also specified to `axf:append-non-end-of-line-characters` in the same tag as well, the effect is not guaranteed. White space characters are disregarded even though they are specified. The initial value of non-end-of-line-characters can be set by `append-non-end-of-line-characters` in the Option Setting File.

**Applies to:** `<fo:page-sequence>`

**Values:** `<string>`

**Initial:** empty string

**Inherited:** no

#### `axf:except-non-starter-characters`

Specifies the non-starter-characters to eliminate.

The characters included in `<string>` can be eliminated from the non-starter-characters. If the specified characters are also specified to `axf:append-non-starter-characters` in the same tag as well, the effect is not guaranteed. White space characters are disregarded even though they are specified. The initial value of non-starter-characters can be set by `append-non-starter-characters` in the Option Setting File.

**Applies to:** `<fo:page-sequence>`

**Values:** `<string>`

**Initial:** empty string

**Inherited:** no

#### afx:expansion-text

Specifies the expansion text for tags in Tagged PDF. Specifies the description for the abbreviation, etc. in Tagged PDF.

**CAUTION:** Effective only when generating tags called structure elements in Tagged PDF.

**Applies to:** all formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** no

#### afx:field-button-face

This property is used to specify the label of a form field marked as a push button.

**Applies to:** <afx:form-field>

**Values:** <string>

**Initial:** empty string

**Inherited:** no

#### afx:field-button-face-down

This property is used to specify the labeling of a form field marked as a push button after activation.

**Applies to:** <afx:form-field>

**Values:** <string>

**Initial:** empty string

**Inherited:** no

#### afx:field-button-face-rollover

This property is used to specify the labeling of a form field marked as a push button when the cursor is moved over the form field.

**Applies to:** <afx:form-field>



**Values:** <string>

**Initial:** empty string

**Inherited:** no

afx:field-button-icon

This property specifies the icon of a form field marked as a push button.

**Applies to:** <afx:form-field>

**Values:** <uri-specification>

**Initial:** empty string

**Inherited:** no

afx:field-button-icon-down

This property is used to specify the icon of a form field marked as a push button after activation.

**Applies to:** <afx:form-field>

**Values:** <uri-specification>

**Initial:** empty string

**Inherited:** no

afx:field-button-icon-rollover

This property specifies the icon of a form field marked as a push button when the cursor is moved over the form field.

**Applies to:** <afx:form-field>

**Values:** <uri-specification>

**Initial:** empty string

**Inherited:** no

afx:field-button-layout

This property specifies where the label of a form field marked as a push button should be placed in relation to the icon. With the default value

caption only the label is displayed, not the icon. With the icon value, only the icon is displayed, not the label; with the caption-below-icon value, the label is displayed below the icon, with caption-above-icon above it, with icon-caption to the right of the icon, with caption-icon to the left of the icon, with caption-over-icon overlaying the icon.

**Applies to:** <axf:form-field>

**Values:** caption | icon | caption-below-icon | caption-above-icon | icon-caption | caption-icon | caption-over-icon

**Initial:** caption

**Inherited:** no

#### axf:field-checked

This property is used to specify the initial state of form fields that have checkbox or radio for the [axf:field-type](#) property. If the default value is false, the initial state is unchecked. If in [axf:field-flags="Checked"](#) is set, the setting `"true"` is ignored here.

**Applies to:** <axf:form-field>

**Values:** false | true

**Initial:** false

**Inherited:** no

#### axf:field-checked-style

This property sets the appearance of form fields that have the checkbox or radio value for the [axf:field-type](#) property. For the default value checkmark a checkmark is displayed, for the value circle a circle, for square a square, for cross a cross and for star an asterisk.

**Applies to:** <axf:form-field>

**Values:** checkmark | circle | square | cross | star

**Initial:** checkmark

**Inherited:** no

#### axf:field-default-text

This property is used to specify a predefined text for a form field, which can then either be adopted by the form user or overwritten with his own text.

**Applies to:** <axf:form-field>

**Values:** <string>

**Initial:** empty string

**Inherited:** no

#### axf:field-description

This property is used to add a description to a form field.

**Applies to:** <axf:form-field>

**Values:** <string>

**Initial:** empty string

**Inherited:** no

#### axf:field-editable

With this property one opens in form fields, which have for the property [axf:field-type](#) the value `combobox`, the possibility to change the displayed value. With the default value `false` editing is excluded. If [axf:field-flags="Editable"](#) is set, the `"true"` setting is ignored here.

**Applies to:** <axf:form-field>

**Values:** `false` | `true`

**Initial:** `false`

**Inherited:** no

#### axf:field-selected

Specifies the first selected item in the list box, combo box.

**Applies to:** <axf:form-field-option>

**Values:** `false` | `true`

**Initial:** false  
**Inherited:** no

#### axf:field-flags

With this property the form field is given a usage identifier:

With `Readonly` the field becomes read-only, with `Required` it becomes mandatory, with `Hidden` the field is not displayed. In this case the size is kept, backgrounds and frames are shown. In version 6.6, the following identifiers have been added: `Multiline`, `Password`, `Scroll`, `Checked`, `Multiple` and `Editable`. Multiple values must be separated by spaces.

These codes have priority over the corresponding settlements with `axf:field-readonly="true"`, `axf:field-required="true"`, `axf:field-multiline="true"`, `axf:field-scroll="true"`, `axf:field-password="true"`, `axf:field-checked="true"`, `axf:field-multiple="true"`, `axf:field-editable="true"`.

**Applies to:** `<axf:form-field>`

**Values:** `<string>`

**Initial:** empty string

**Inherited:** no

#### axf:field-font-size

This property assigns a desired font size to the content of the form field. The auto value uses the font size of the environment. The default value `font-size` sets the value set with the `font-size` property.

**Applies to:** `<axf:form-field>`

**Values:** `font-size` | `auto` | `<length>`

**Initial:** `font-size`

**Inherited:** no

## axf:field-format

This property assigns a desired formatting to the form field content according to the value specified in [axf:field-format-category](#). The exact format specification for number, percentage, date and time can be found in the AHF Online Manual. It corresponds to the JavaScript syntax.

As of version 6.6, the number of digits to be displayed after the decimal point or decimal comma can be set freely.

**Applies to:** [<axf:form-field>](#)

**Values:** auto | [ [ [<string>](#) | [<number>](#) ] [[<string>](#) | [<number>](#) | true | false]\* ]

**Initial:** auto

**Inherited:** no

## axf:field-format-category

This property assigns a format type to the form field. The formatting itself is specified with [axf:field-format](#).

If a string is specified as a default value in the text field with [axf:field-default-text](#), the format validity is checked. Non-compliant default values are ignored.

**Applies to:** [<axf:form-field>](#)

**Values:** none | number | percentage | date | time

**Initial:** none

**Inherited:** no

## axf:field-lock-document

This property is used to indicate whether the document should be closed with the signature. With the default value auto the PDF reader will ask whether the document should be closed.

Effective as of PDF 1.7.

**Applies to:** [<axf:form-field>](#)

**Values:** auto | false | true

**Initial:** auto

**Inherited:** no

axf:field-maxlen

This property is used to specify the maximum number of characters allowed for input in a form field marked as a text field. If the default value is 0, or the property is not specified, or a negative number is specified, then the number of characters allowed is not restricted. If the maximum number of characters set here is exceeded in the string set with [axf:field-default-text](#), then this string will not be output.

**Applies to:** [<axf:form-field>](#)

**Values:** [<number>](#)

**Initial:** 0

**Inherited:** no

axf:field-multiline

This property sets whether a form field marked as a text field allows input in a single line or in multiple lines. The default value false allows only one line. If [axf:field-flags="Multiline"](#) is set, the setting [="true"](#) is ignored here.

**Applies to:** [<axf:form-field>](#)

**Values:** true | false

**Initial:** false

**Inherited:** no

axf:field-multiple

This property sets whether only one or a number of options can be selected for form fields that have the listbox value for the [axf:field-type](#) property. With the default value false, the choice is limited to one

option in the list. If `axf:field-flags="Multiple"` is set, the `"true"` setting is ignored here.

**Applies to:** `<axf:form-field>`

**Values:** false | true

**Initial:** false

**Inherited:** no

`axf:field-name`

This property defines the name of a form field.

**Applies to:** `<axf:form-field>`

**Values:** `<string>`

**Initial:** none, a name must be entered as a value.

**Inherited:** no

`axf:field-name-suffix-page-number`

This property is used to add a page number to the form field name.

It is assumed that a `axf:field-name` is defined. If the value is an empty string, nothing is added. This property is used with a form inside the `<fo:static-content>` if a separate form is to be generated for each page.

**Applies to:** `<axf:form-field>`

**Values:** `<string>`

**Initial:** empty string

**Inherited:** no

`axf:field-password`

With this property one marks by the value `true` a form field marked as text field as input field for a password. Each character entered is represented by a "\*" character. If `axf:field-flags="Password"` is set, the `"true"` setting is ignored here.

**Applies to:** `<axf:form-field>`

**Values:** true | false

**Initial:** false

**Inherited:** no

axf:field-readonly

The true value for this property marks the form field as "read only". If `axf:field-flags="ReadOnly"` is set, the `"true"` setting is ignored here.

**Applies to:** `<axf:form-field>`

**Values:** true | false

**Initial:** false

**Inherited:** no

axf:field-required

The true value for this property is used to mark the form field as "mandatory to fill". If `axf:field-flags="Required"` is set, the `"true"` setting is ignored here.

**Applies to:** `<axf:form-field>`

**Values:** true | false

**Initial:** false

**Inherited:** no

axf:field-scroll

This property sets whether a form field marked as a text field gets a scroll bar or not. The default value false makes the text field not scrollable. If `axf:field-flags="Scroll"` is set, the setting `"true"` is ignored here.

**Applies to:** `<axf:form-field>`

**Values:** true | false

**Initial:** false

**Inherited:** no



#### axf:field-submit-coordinates

Specifies whether to send out the coordinates of the mouse when submitting a form field.

Values have the following meanings:

- false: Does not send out the coordinates.
- true: Sends out the coordinates.

**Applies to:** <axf:form>

**Values:** false | true

**Initial:** false

**Inherited:** no

#### axf:field-submit-method

Specifies the way to send the information when submitting a form field.

Values have the following meanings:

- get: Sends out a form as GET request.
- post: Sends out a form as POST request.

**Applies to:** <axf:form>

**Values:** get | post

**Initial:** get

**Inherited:** no

#### axf:field-text-align

This property sets the horizontal alignment of the content in a text field.

**Applies to:** <axf:form-field>

**Values:** left | center | right

**Initial:** left

**Inherited:** no

### axf:field-top-index

This property sets the order of options for form fields that have listbox or combobox for the `axf:field-type` property. With the default value 1, the first option (object `<axf:form-field-option>`) in the list of options is displayed in the form field. With a higher number, options positioned further down can also be moved into the display.

The setting here is overridden by the setting of

`axf:field-selected="true"`.

**Applies to:** `<axf:form-field>`

**Values:** `<number>`

**Initial:** 1

**Inherited:** no

### axf:field-type

This property is used to set the type of a form field. The possible values: text for a text field, button for a push button to start an action, checkbox for a box to select an option, radio for a button usually placed in a group of such buttons where only one of the buttons can be selected, listbox for a list of textual alternatives defined as list items with the `<axf:form-field-option>` child extension object, combobox for a list variant, and signature for a digital signature.

The area for the digital signature must be set with width (`width`) and height (`height`) in the width-height ratio of the signature to be generated. The content remains empty for the signature generated in the PDF. The formatting of the signature can be set in a restricted way (font selection and font color) by the block (`<fo:block>`) enclosing the form field. In the formatting process this area is merely reserved, the signature is not generated yet, this only in the PDF generation. In the PDF browser this area is displayed to complete the signature. Clicking

on this area activates the signature. The PDF must finally be saved with the signature.

**Applies to:** `<afx:form-field>`

**Values:** text | button | checkbox | radio | listbox | combobox | signature

**Initial:** none, a value must be selected.

**Inherited:** no

`afx:field-value`

Specifies the value used when submitting a form field, etc.

**Applies to:** `<afx:form-field>`, `<afx:form-field-option>`

**Values:** `<string>`




**Initial:** empty string

**Inherited:** no

`afx:float`

This is a shorthand property for setting float related extension properties: `afx:float-x`, `afx:float-y`, `afx:float-reference`, `afx:float-move`, `afx:float-wrap`.


Values have the following meanings:

- `<float-x>` = none | start | end | left | right | top | bottom | center | inside | outside | alternate | column-outside  
Specifies horizontal (or vertical if writing-mode is vertical) float alignment.  `afx:float-x`
- `<float-y>` = none | before | after | top | bottom | left | right | center | inside | outside  
Specifies vertical (or horizontal if writing-mode is vertical) float alignment.  `afx:float-y`
- `<float-wrap>` = wrap | skip  
Specifies whether the text wraps around the float.  `afx:float-wrap`
- `<float-reference>` = auto | normal | page | multicol | column

Specifies reference area where the float is positioned. 

`axf:float-reference`

- `<float-move>` = next | auto-next | auto-move | keep | keep-float | `<integer>`

Specifies whether the float moves to the next page (or column). 

`axf:float-move`

An example of the use of this shorthand property can be found in Float Extension in Features of the Online Manual.

The values left, right, top, bottom, center, inside, and outside which express absolute directions have the ambiguity to extend to both `<float-x>` and `<float-y>`. This can be solved as follows:

- none is ignored.
- When one of before, after, start, end, alternate or column-outside is contained, either `<float-x>` or `<float-y>` will be selected. The remaining ambiguous value will become another value.
- When none of before, after, start, end, alternate or column-outside is contained, the first value which expresses the absolute direction will be `<float-x>`, the latter value will be `<float-y>`.

**Applies to:** `<fo:float>`

**Values:** `<float-x>` || `<float-y>` || `<float-wrap>` || `<float-reference>` || `<float-move>`

**Initial:** none

**Inherited:** no

`axf:float-x`

Specifies horizontal (or vertical if writing-mode is vertical) float alignment.

Values have the following meanings:

- none: Not floated horizontally (or vertically if writing-mode is vertical).

- start: Floated to the start side. Same as left in horizontal left-to-right writing-mode.
- end: Floated to the end side. Same as right in horizontal left-to-right writing-mode.
- left: Floated to the left side. Used only for horizontal writing. It cannot be specified for vertical writing.
- right: Floated to the right side. Used only for horizontal writing. It cannot be specified for vertical writing.
- top: Floated to the top. Used only for vertical writing. It cannot be specified for horizontal writing.
- bottom: Floated to the bottom. Used only for vertical writing. It cannot be specified for horizontal writing.
- center: Floated to the center horizontally (or vertically if writing-mode is vertical).
- inside: Floated to the inside (left side on a right page, right side on a left page). Used only for horizontal writing. It cannot be specified for vertical writing.
- outside: Floated to the outside (right side on a right page, left side on a left page). Used only for horizontal writing. It cannot be specified for vertical writing.
- alternate: When the float area is in the first column, it's considered that end is specified, when the float area is in the last column, it's considered that start is specified, if it is not in the column, it's considered that center is specified.
- column-outside: When the float area is in the last column, it's considered that end is specified, when the float area is in other columns, it's considered that start is specified, if it is not in the column, it's considered that start is specified. (New in V7.1)

**Applies to:** `<fo:float>`

**Values:** none | start | end | left | right | top | bottom | center | inside | outside | alternate | column-outside

**Initial:** none

**Inherited:** no

axf:float-y

Specifies vertical (or horizontal if writing-mode is vertical) float alignment.

Values have the following meanings:

- none: Not floated vertically (or horizontally if writing-mode is vertical).
- before: Floated to the before side. Same as top in horizontal left-to-right writing-mode.
- after: Floated to the after side. Same as bottom in horizontal left-to-right writing-mode.
- top: Floated to the top. Used only for horizontal writing. It cannot be specified for vertical writing.
- bottom: Floated to the bottom. Used only for horizontal writing. It cannot be specified for vertical writing.
- left: Floated to the left side. Used only for vertical writing. It cannot be specified for horizontal writing.
- right: Floated to the right side. Used only for vertical writing. It cannot be specified for horizontal writing.
- center: Floated to the center vertically (or horizontally if writing-mode is vertical).
- inside: Floated to the inside (left side on a right page, right side on a left page). Used only for vertical writing. It cannot be specified for horizontal writing.

- outside: Floated to the outside (right side on a right page, left side on a left page). Used only for vertical writing. It cannot be specified for horizontal writing.
- anchor: Floated to the anchor point.

**Applies to:** <fo:float>

**Values:** none | before | after | top | bottom | left | right | center | inside | outside | anchor

**Initial:** none

**Inherited:** no

axf:float-reference

Specifies reference area where the float is placed.

Values have the following meanings:

- auto: Same as normal.
- normal: The float is placed in the current reference area.
- page: The float is placed in the page area (<fo:region-body>).
- multicol: The float is placed in the multi-column area.
- column: The float is placed in the column area.

When **axf:float-y** is none, the reference area in x-axis will be set.

**Applies to:** <fo:float>

**Values:** auto | normal | page | multicol | column

**Initial:** auto

**Inherited:** no

axf:float-move

Specifies whether the float moves to the next page (or column).

Values have the following meanings:

- auto: Same as keep if **axf:float-y** is none, same as auto-next otherwise.
- next: The float is moved to the next page (or column).

- auto-next: The float is moved to the next page (or column) if there is not enough space in the current page (or column).
- auto-move: The float is moved to the next page (or column) if there is not enough space in the current page (or column). It is also possible that the float anchor and around text are moved to the next page (or column) instead.
- keep: The float and its anchor are always placed on the same page (or column). If there is not enough space for that, a page (or column) break occurs before the float anchor and a blank space is left.
- keep-float: Although it is almost the same as keep, the following points differ. With keep, `keep-with-next="always"` is automatically set to anchor area and a page break (or column break) is deterred between the next area. However, it is not performed by keep-float. The difference on operation will appear when the height of anchor area is zero.
- after-edge: Aligns the bottom edge of the float with the position of the anchor when `axf:float-y` is none.
- `<integer>`: The numerical value is considered the page number and moves the float to that page. If it is larger than the number of pages in the document, pages with no contents (not blank pages) will be inserted. It does not work when `axf:float-y` is none. At that time, it is considered that auto is specified. (New in V7.1)

CAUTION: Page numbers are considered logical page numbers.

If both `axf:float-x` and `axf:float-y` are none, the object is not floated and the `axf:float-move` specification is ineffective.

**Applies to:** `<fo:float>`

**Values:** auto | normal | page | multicol | column

**Initial:** auto

**Inherited:** no



axf:float-wrap

Specifies the text wrapping.

Values have the following meanings:

- auto: Same as wrap if [axf:float-x](#) is other than none. Same as skip if it is none.
- wrap: Wraps the text around the float. However, when there is a space on both side of a float within the column (by specifying center to [axf:float-x](#) or [axf:float-offset-x](#)), it is the same as skip.
- skip: The text doesn't wrap around the float. The text is positioned by skipping the float.

**Applies to:** [<fo:float>](#)

**Values:** auto | wrap | skip

**Initial:** auto

**Inherited:** no

axf:float-min-wrap-x

Specifies the minimum width for the text wrapping around the float.

If the width for the text wrapping around the float is smaller than the width specified by this property, the text doesn't wrap.

The initial value, normal is minimum wrapping width of normal floats. It is same as 0pt.

**Applies to:** [<fo:float>](#)

**Values:** normal | [<length>](#) | [<percentage>](#)

**Initial:** normal

**Inherited:** no

axf:float-min-wrap-y

Specifies the minimum extent for the text placed before and after the float.

When the `axf:float-y` value is not none and there is remaining space to place the text before or after the float within the formatting target area, if the extent of that space is smaller than the extent specified by this property, the text is not placed to that space.

If the value of `axf:float-y` is none, it is processed as follows:

- If the value of `axf:float-move` is auto-next and there is space left to place text after the float within the formatting target area, if its height (width in vertical writing) is smaller than the height (width in vertical writing) specified in this property, moves the float position so that its height (width in vertical writing) becomes zero. Text that was after the float will move before the float.
- If the value of `axf:float-move` is auto-move, it is the same as the case of auto-next, but within the formatting target area, if the height (width in vertical writing) of the text placement space before the float, not only after the float, is smaller than the height (width in vertical writing) specified in this property, moves the float position so that its height (width in vertical writing) becomes zero. Text that was before the float will move after the float.
- If the value of `axf:float-move` is other than these, text will wrap around if there is space left to place text after the float in the formatting target area, otherwise it will not wrap around.

The initial value, normal is the same as 0pt.

**Applies to:** `<fo:float>`

**Values:** normal | `<length>` | `<percentage>`

**Initial:** normal

**Inherited:** no

`axf:float-centering-x`

Specifies whether the float is centered when the width for the text wrapping around the float is insufficient.

Values have the following meanings:

- none: The float is not centered.
- auto: The float is centered when the width for the text wrapping around the float is less than the width specified by the `axf:float-min-wrap-x` property.
- `<length>`  
`<percentage>`: The float is centered when the width for the text wrapping around the float is less than the width specified by this property.

**Applies to:** `<fo:float>`

**Values:** none | auto | `<length>` | `<percentage>`

**Initial:** none

**Inherited:** no

`axf:float-centering-y`

Specifies whether the float is centered when the extent for the text placed before and after the float is insufficient.

Values have the following meanings:

- none: The float is not centered.
- auto: The float is centered when the extent for the text placed before and after the float is less than the extent specified by the `axf:float-min-wrap-y` property.
- `<length>`  
`<percentage>`: The float is centered when the extent for the text placed before and after the float is less than the extent specified by this property.

**Applies to:** `<fo:float>`

**Values:** none | auto | `<length>` | `<percentage>`

**Initial:** none

**Inherited:** no

### axf:float-margin-x

Specifies the space between the float and the text wrapping around the float (in x-axis).

When two values are specified, the first one will be the value of the start side, the next one will be the value of the end side.

**Applies to:** <fo:float>

**Values:** [<length> | <percentage>] [<length> | <percentage>]?

**Initial:** 0pt

**Inherited:** no

### axf:float-margin-y

Specifies the space between the float and the text before and after the float (in y-axis).

When two values are specified, the first one will be the value of the before side, the next one will be the value of the after side.

**Applies to:** <fo:float>

**Values:** [<length> | <percentage>] [<length> | <percentage>]?

**Initial:** 0pt

**Inherited:** no

### axf:float-float-margin-x

Specifies the space between the float and another neighboring float (in x-axis).

The initial value auto is same as the [axf:float-margin-x](#) value. When two values are specified, the first one will be the value of the start side, the next one will be the value of the end side.

The [axf:float-float-margin-x](#) value cannot exceed the [axf:float-margin-x](#) value.

**Applies to:** <fo:float>

**Values:** auto | [[<length> | <percentage>] [<length> | <percentage>]?)

**Initial:** auto

**Inherited:** no

axf:float-float-margin-y

Specifies the space between the float and another neighboring float (in y-axis).

The initial value auto is same as the [axf:float-margin-y](#) value. When two values are specified, the first one will be the value of the before side, the next one will be the value of the after side.

The [axf:float-float-margin-y](#) value cannot exceed the [axf:float-margin-y](#) value.

**Applies to:** <fo:float>

**Values:** auto | [[<length> | <percentage>] [<length> | <percentage>]?]

**Initial:** auto

**Inherited:** no

axf:float-offset-x

Specifies the offset placement for the float (in x-axis).

If [axf:float-x](#) is start, the offset to the end side is specified. If it is end, the offset to the start side is specified.

**Applies to:** <fo:float>

**Values:** <length> | <percentage>

**Initial:** 0pt

**Inherited:** no

axf:float-offset-y

Specifies the offset placement for the float (in y-axis).

If [axf:float-y](#) is before, the offset to the after side is specified. If it is after, the offset to the before side is specified.

**Applies to:** <fo:float>

**Values:** <length> | <percentage>

**Initial:** 0pt

**Inherited:** no

axf:flush-zone

Adjusts the space at the end of the last line.

Values have the following meanings:

- none: Does nothing.
- <length>  
<percentage>: If `text-align="justify"` is specified but `text-align-last="justify"` are not specified, and the space at the end of the last line is less than or equal to the specified value, the last line is processed as `text-align-last="justify"` is specified.

**Applies to:** <fo:block>

**Values:** none | <length> | <percentage>

**Initial:** none

**Inherited:** yes

axf:font-feature-settings

Controls the feature of OpenType fonts.

Values have the following meanings:

- normal: Does nothing.
- <feature-tag-value>: Specifies the tag of OpenType GSUB/GPOS with the following format:  
<feature-tag-value> = <string> [ <integer> | on | off ]?

For more details see XSL/CSS Extensions in Features of the Online Manual.

**CAUTION:** Refrain from using this property if you are not familiar with the OpenType specification. Invalidating the tags required for

complex script control or inadvertent settings will result in unintended results.

**Applies to:** all elements

**Values:** normal | <feature-tag-value>#

**Initial:** normal

**Inherited:** yes

axf:footnote-align

Specifies the alignment of the footnotes.

Specifies the method of arrangement of footnotes or sidenotes.

When it is sidenotes (footnote arrangement into <fo:region-start> or <fo:region-end> is specified by axf:footnote-position), it's possible to specify whether it is arranged automatically, or it is arranged near by the before side, or it is arranged near by the after side.

Values have the following meanings:

- auto: Footnotes are placed automatically. Footnotes are the usual arrangement. When the text is one column, sidenotes are arranged with an anchor position, and in the case of two or more columns, sidenotes are arranged near by the before side.
- before: Sidenotes are arranged near by the before side. In the case of usual footnotes that are not sidenotes, footnotes are arranged immediately after the text in a page.
- after: Sidenotes are arranged near by the after side. In the case of usual footnotes that are not sidenotes, footnotes are arranged at the last of a page.

**Applies to:** <fo:region-body>, <fo:footnote>

**Values:** auto | before | after

**Initial:** auto

**Inherited:** no

#### axf:footnote-number-format

Specifies the format of footnote number.

Adopted as a format of `<axf:footnote-number>`. It can be specified in the same way as the `format` property.

**Applies to:** `<fo:page-sequence>`

**Values:** `<string>`

**Initial:** 1

**Inherited:** no

#### axf:footnote-number-initial

Specifies the initial footnote number.

Values have the following meanings:

- `auto`: Succeeded from the before existing `<fo:page-sequence>` without initializing a footnote number. When `<fo:page-sequence>` does not exist before, it is set to 1.
- `<number>`: Initializes the footnote number with the specified value. The value must be greater than or equal to 1. Actual initialization takes place at the time when `axf:footnote-number-reset` is specified.

**Applies to:** `<fo:page-sequence>`

**Values:** `auto` | `<number>`

**Initial:** `auto`

**Inherited:** no

#### axf:footnote-number-reset

Resets the footnote numbering.

A footnote number is reset by the value specified by `axf:footnote-number-initial`.

- `auto`: Succeeded from the before existing `<fo:page-sequence>`. When `<fo:page-sequence>` does not exist before, it is set to none.
- `none`: Does not reset the footnote number.



- `page`: Resets the footnote number when a page breaks.
- `odd-page`: Resets the footnote number when an odd page breaks.
- `even-page`: Resets the footnote number when an even page breaks.
- `column`: Resets the footnote number when a column breaks.

**Applies to:** `<fo:page-sequence>`

**Values:** `auto` | `none` | `page` | `odd-page` | `even-page` | `column`

**Initial:** `auto`

**Inherited:** `no`

`axf:footnote-keep`

Specifies whether to arrange a footnote and an anchor in the same page.

Values have the following meanings:

- `auto`: When a footnote does not fit within the column, it is sent to the next page or the next column.
- `always`: When a footnote does not fit within the column, the line of the anchor and the subsequent lines are sent to the following page, and a footnote and an anchor are arranged in the same page. When `axf:footnote-position="column"` is specified, a footnote and an anchor are arranged in the same column.

CAUTION: A footnote and an anchor may not be arranged in the same page when the cell containing the anchor is large or at the bottom of the page.

- `none`: When a footnote does not fit within the column, the line of the anchor and the subsequent lines are sent to the next page, and attempts to fit the footnote itself within the page. (New in V7.1)

**Applies to:** `<fo:region-body>`, `<fo:footnote>`

**Values:** `auto` | `always` | `none`

**Initial:** `auto`

**Inherited:** `no`

## afx:footnote-max-height

Specifies the maximum height of footnote.

Specifies the maximum height of footnote. The behavior when auto is specified depends on the value of [auto-break-footnote](#) in the Option Setting File.

- When `afx:footnote-max-height="auto"` and `auto-break-footnote="false"` are specified:

Up to AH XSL Formatter V6.1, page (column) break did not occur within `<fo:footnote-body>`. This setting performs such previous operation. In case a footnote is big and exceeds the page height, an overflow occurs. However, only in case a footnote is small, is it possible to format without breaking a footnote.

- When `afx:footnote-max-height="auto"` and `auto-break-footnote="true"` are specified:

It is considered that the page height is specified to `afx:footnote-max-height` and page break (column break) occurs within `<fo:footnote-body>`.

- When `afx:footnote-max-height="<length>"` or `"<percentage>"` is specified:

The value must be a positive. [auto-break-footnote](#) is not referred to. At this time, page (column) break may occur within `<fo:footnote-body>`. The footnote will be put after an anchor position as much as possible and the remaining part will be split and sent to the next page (column). Note that `afx:footnote-max-height` is invalid for pages without text.

**Applies to:** `<fo:region-body>`

**Values:** auto | `<length>` | `<percentage>`

**Initial:** auto

## Inherited: no

axf:footnote-position

Specifies the location to place the footnote.

Values have the following meanings:

- page: Footnotes are placed on the after side of each page in `<fo:region-body>`. This is the standard layout of XSL specification.
- odd-page: Footnotes are placed on the after side of each odd page in `<fo:region-body>`. This is the standard layout of sidenotes in vertical writing. (On the outside in odd page.)
- even-page: Footnotes are placed on the after side of each even page in `<fo:region-body>`.
- start: Footnotes are placed on each page in `<fo:region-start>`. Headnotes in vertical writing. Sidenotes on the left side in horizontal writing.
- end: Footnotes are placed on each page in `<fo:region-end>`. Footnotes in vertical writing. Sidenotes on the right side in horizontal writing.
- inside: Footnotes are placed at each even page in `<fo:region-end>` and each odd page in `<fo:region-start>`. Sidenotes on the inside in horizontal writing.
- outside: Footnotes are placed on each even page in `<fo:region-start>` and each odd page in `<fo:region-end>`. This is a standard sidenotes in horizontal writing. (On the outside of both right and left pages.)
- column: Footnotes are placed on the after side of each column. This is a standard footnote in horizontal writing. Same as page if the document is non multi-columns.
- start-column: Footnotes are placed on the after side of the first column. Same as start if the document is non multi-columns.
- end-column: Footnotes are placed on the after side of the end column. Same as end if the document is non multi-columns.

- `inside-column`: Footnotes are placed in the same way as `end-column` at even page and in the same way as `start-column` at odd page. Footnotes are put together on the inside column in horizontal writing.
- `outside-column`: Footnotes are placed in the same way as `start-column` at even page and in the same way as `end-column` at odd page. Footnotes are put together on the outside column in horizontal writing.

It is possible to arrange footnotes inside the `<fo:region-start>` or the `<fo:region-end>` (these notes are called sidenotes). Besides specifying them to `<fo:region-body>`, it is also effective to specify to individual `<fo:footnote>`. It is possible to make several types of notes intermingled by this extension.

There are following restrictions for sidenotes:

- The sidenotes which run over from the specified area will overflow.
- The `xsl-footnote-separator` is not effective.

`start-column`, `end-column`, `inside-column` and `outside-column` have the following restrictions:

- It is not possible to specify these values to `<fo:footnote>`. It is only available to specify them to `<fo:region-body>`.
- When you specify these values to `<fo:region-body>`, `column` cannot be specified to `<fo:footnote>`.
- These values cannot be used with the forcible column break such as `break-before="column"`, etc. These values cannot be used for a large volume of footnotes.

`odd-page` and `even-page` have the following restrictions:

- It is not possible to specify these values to `<fo:footnote>`. It is only available to specify them to `<fo:region-body>`.

**Applies to:** `<fo:region-body>`, `<fo:footnote>`

**Values:** `page` | `odd-page` | `even-page` | `start` | `end` | `inside` | `outside` | `column` | `start-column` | `end-column` | `inside-column` | `outside-column`

**Initial:** `page`

**Inherited:** no

axf:footnote-stacking

Specifies the method to layout the footnote.

Values have the following meanings:

- block: Arranges the footnotes in the block progression direction.
- inline: Arranges the footnotes in the inline progression direction.

**Applies to:** <fo:region-body>, <fo:footnote>

**Values:** block | inline

**Initial:** block

**Inherited:** no

axf:hanging-punctuation

Specifies whether to hang punctuation marks at the start of the line or end of the line.

Values have the following meanings:

- none: Do not hang punctuation marks at the start of the line or end of the line.
- start: Hangs punctuation marks at the start of the line. If the target character for hanging appears at the start of the line, the character is forced to hang.
- first: Behaves as the same as the start value only with the start line of a paragraph.
- force-end: Hangs punctuation marks at the end of the line. When `text-align="right"` or `text-align="justify"` (or `text-align-last="justify"`) is specified and a target character for hanging appears at the end of the line, the character is hanged forcibly. When anything else is specified to `text-align`, the character is hung naturally.
- allow-end: Hangs punctuation marks at the end of the line. When `text-align="right"` or `text-align="justify"` (or `text-align-last="justi-`

fy") is specified and a target character for hanging comes to the end of the line, the character is not hung if text fits into one line, but the character is hung if text does not fit into one line. When anything else is specified to `text-align`, the character is hung naturally.

- last: Behaves the same as the force-end value only with the end of the line of a paragraph.

The target punctuation marks is as follows:

- force-end, allow-end:

Japanese or Simplified Chinese:

U+3001 IDEOGRAPHIC COMMA 、

U+3002 IDEOGRAPHIC FULL STOP 。

U+FF0C FULLWIDTH COMMA ,

U+FF0E FULLWIDTH FULL STOP .

Traditional Chinese:

U+FE50 SMALL COMMA ,

U+FE51 SMALL IDEOGRAPHIC 、

U+FE52 SMALL FULL STOP 。

U+FF64 HALFWIDTH IDEOGRAPHIC COMMA 、

Other languages Same as the last value.

- last: quotation marks, closing parentheses, period, comma and hyphen.
- start, first: quotation marks, closing parentheses and bullet.

**Applies to:** `<fo:block>`

**Values:** none | [ start || first || [ force-end | allow-end ] || last ]

**Initial:** none

**Inherited:** yes

axf:headers

Specifies the table header cells associated with this cell. It is the same as the headers attribute in HTML.

**Applies to:** <fo:table-cell>

**Values:** <idrefs>

**Initial:** empty

**Inherited:** no

axf:hyphenate-caps-word

Specifies whether to hyphenate words consisting only of uppercase letters.

A phrase like ANTENNA-HOUSE with hyphens is considered multiple words. There is a possibility of a line break at the hyphen position. Even letters processed as small-caps are considered lowercase if the original letters are lowercase. This setting is invalid when `hyphenate="false"` is specified.

Values have the following meanings:

- true: Hyphenates a word.
- false: Does not hyphenate a word that consists of all capital letters. A word that does not consist of all capital letters, such as a word that has only the first letter capitalized, is hyphenated.
- false-all: Does not hyphenate all words that start with a capital letter.

**Applies to:** <fo:block>

**Values:** true | false | false-all

**Initial:** true

**Inherited:** yes

axf:hyphenate-hyphenated-word

Specifies whether to hyphenate the already hyphenated word or not.

This setting is invalid when `hyphenate="false"` is specified.

Values have the following meanings:

- true: Hyphenates a word.

- false: Does not hyphenate a word. The line may break only at the hyphen position.

The following are recognized as hyphens:

- U+002D HYPHEN-MINUS  
U+00AD SOFT HYPHEN  
U+2010 HYPHEN  
U+2011 NON-BREAKING HYPHEN

**Applies to:** <fo:block>

**Values:** true | false

**Initial:** true

**Inherited:** yes

axf:hyphenation-minimum-character-count

Specifies the minimum number of characters a word must have before it can be hyphenated. The axf:hyphenation-minimum-character-count must be an integer number of 1 or more.

**Applies to:** <fo:block>, <fo:character>

**Values:** <integer>

**Initial:** 1

**Inherited:** yes

axf:hyphenation-zone

Limits the range where a hyphenation is available.

Values have the following meanings:

- none: Nothing is limited in hyphenation.
- <length>: If the length from the end of a word to the end of line is less or equal to the specified value, the following word is not hyphenated. It is invalid when 0 or less value is specified.
- <percentage>: Refer to the width of containing block.

**Applies to:** <fo:block>



**Values:** none | <length> | <percentage>

**Initial:** none

**Inherited:** yes

axf:image-resolution

Specifies the resolution of an image.

The resolution of a background image is specified by

[axf:background-image-resolution](#). In case of vector images, such as SVG, it is applied to numerical values with no units. `from-image` is ignored.

Values have the following meanings:

- `normal`: Depends on the default value of the system. It's the value specified as `pxpi` in the Option Setting File. Ignores the actual resolution of an image.
- `from-image`: Uses the actual resolution of an image. When an image does not have the resolution, it will follow the specification. If nothing is specified, it is the same as `normal`.
- `<dpi>`: Specifies the resolution (dpi). Ignores the actual resolution of an image.

You can also use `dpcm` as a unit to indicate the resolution.

**Applies to:** [<fo:external-graphic>](#), [<fo:instream-foreign-object>](#)

**Values:** normal | [ `from-image` || `<dpi>` ]

**Initial:** `from-image`

**Inherited:** no

axf:image-orientation

Rotates the image.

Values have the following meanings:

`from-image`: Follows the image information (such as the orientation specified in metadata).

`none`: Does not rotate the image.

[ 0 | 90 | 180 | 270 ] flip?: Rotates the image by the specified angle. If flip is specified, the image will be horizontally flipped after the rotation.

**Applies to:** <fo:external-graphic>, <fo:instream-foreign-object>

**Values:** from-image | none | [ 0 | 90 | 180 | 270 ] flip?

**Initial:** from-image

**Inherited:** yes

axf:image-preproc

Preprocesses the image.

**Applies to:** <fo:external-graphic>

**Value:** <string>

**Initial:** empty string

**Inherited:** no

The following can be specified for <string>:

- OSDC [params]: The data specified to src for <fo:external-graphic> is converted to PDF using [Office Server Document Converter](#) (abbreviated as OSDC), and the PDF is embedded in the document. Further explanations on the application can be found in the AH Formatter Online Manual.

axf:indent-here

Aligns the indent position to the region position when a line break occurs.

In order to indent lines, specify <fo:inline> which contains this property as follows:

- <fo:block>Indent-here: <fo:inline axf:indent-here="0pt"/>The quick brown fox jumps over the lazy dog ...</fo:block>

The start position of <fo:inline> becomes the standard of indentation.

Values have the following meanings:

- none: Does nothing.
- `<length>`: Aligns the indent position to the shifted position by `<length>` from the beginning of the specified line area.

**Applies to:** `<fo:inline>`

**Values:** none | `<length>`

**Initial:** none

**Inherited:** no

`axf:index-page-citation-range-f-suffix`

Specifies the suffix when merging 2 consecutive page numbers.

It is used in the same way as `<fo:index-page-citation-range-separator>`.

The content is `(#PCDATA|%inline;)*`. If omitted, it is considered "f.".

**Applies to:** block level elements

**Values:** `<string>`

**Initial:** "f."

**Inherited:** yes

`axf:index-page-citation-range-ff-suffix`

Specifies the suffix when merging 3 consecutive page numbers.

It is used in the same way as `<fo:index-page-citation-range-separator>`.

The content is `(#PCDATA|%inline;)*`. If omitted, it is considered "ff.".

**Applies to:** block level elements

**Values:** `<string>`

**Initial:** "ff."

**Inherited:** yes

`axf:initial-letters`

Creates drop initials.

A dropped initial is selected from the first text by tracing the children of the element for which `axf:initial-letters` is specified. `axf:initial-letters` is ignored if the following elements appear before text:

- `<fo:block>` with `axf:initial-letters` specified
- `<fo:block>` within inline elements
- Block elements other than `<fo:block>`
- `<fo:inline-container>`
- `<fo:bidirectional-override>`
- `<fo:page-number>`
- `<fo:page-number-citation>`
- `<fo:page-number-citation-last>`
- `<axf:footnote-number>`
- `<axf:footnote-number-citation>`

Values have the following meanings:

- `normal`: Does nothing.
- `<number>`: Specifies the letter size of a dropped initial by number of lines. When the value is less than 1, it is invalid.
- `<length>`: Specifies the letter size of a dropped initial by actual dimensions. The specified dimension is converted to how many lines it corresponds to. When it is less than 1 line, it is invalid.
- `<integer>`: Specifies the number of lines a dropped initial should sink. When the value is omitted, it is considered a value obtained by rounding down the number of lines to an integer. When the value is less than 1, it is invalid.
- `drop`: Equivalent to specifying a value of the number of lines rounded down to an integer to `<integer>`.
- `raise`: Equivalent to specifying 1 to `<integer>`.
- `adjacent`: Indents all lines in the block, not just the letter of a dropped initial.

- `<integer2>`: Similar to `adjacent`, but indents the lines after the part of dropped initial by the specified number of lines. When the value is omitted, it is considered 0. When the value is negative, it is invalid.

A float with `axf:float-x="start"` within the number of lines of the dropped initial is placed on the start side of the dropped initial when its anchor is included at the start of the block. Otherwise, it will be pushed out and placed on the after side of the dropped initial. [axf:initial-letters-start-intrusion](#).

For more details see `axf:initial-letters` in XSL/CSS Extensions in Features of the Online Manual.

**Applies to:** `<fo:block>`

**Values:** `normal` | `[[<number> | <length>] <integer>? | [<number> | <length>] && [drop | raise]] [adjacent | <integer2>]?`

**Initial:** `normal`

**Inherited:** `no`

`axf:initial-letters-first-line-head-height`

Specifies where the height of a dropped initial should be adjusted.

**CAUTION:** This property is not effective when the document is vertical writing or CJK.

Values have the following meanings:

- `cap-height`: Adjusts the height to cap-height on the first line. For an illustrated example, see `axf:initial-letters-first-line-head-height` in the Online Manual.
- `x-height`: Adjusts the height to x-height on the first line. For an illustrated example, see `axf:initial-letters-first-line-head-height` in the Online Manual.
- `auto`: Adjusts the height to x-height under the following conditions:

- When the next character of a dropped initial character or image is lowercase small-caps (provided that the character or image to be a dropped initial and the next character belong to the same element).
- When the number of lines of a dropped initial is equal to the number of lines a dropped initial should sink (provided that the number of lines is specified without units).

Otherwise, adjusts to cap-height.

**Applies to:** <fo:block>

**Values:** cap-height | x-height | auto

**Initial:** auto

**Inherited:** yes

axf:initial-letters-end-indent

Specifies the space on the end side of a dropped initial.

Multiple values can be specified. The first value applies to the first line and the second value applies to the next line. The last value applies after the corresponding line.

**Applies to:** <fo:block>

**Values:** <length>+

**Initial:** 0pt

**Inherited:** yes

axf:initial-letters-leading-punctuation

Specifies the size of the leading punctuation of a dropped initial, etc.

Values have the following meanings:

- normal: Does nothing special.
- hide: Does not display the leading punctuation.
- <length>: Specifies the font size of the leading punctuation.
- <color>: Specifies the color of the leading punctuation.

**Applies to:** <fo:block>

**Values:** normal | hide | [<length> || <color>]

**Initial:** normal

**Inherited:** yes

axf:initial-letters-leading-punctuation-position

Specifies the position of the leading punctuation of a dropped initial in the inline progression direction.

Values have the following meanings:

- normal: Does nothing special.
- hang: Protrudes the leading punctuation to the start side.  
axf:hanging-punctuation="start" protrudes one-character punctuation, but the hang setting protrudes all punctuations.
- intrude: Penetrates and overlaps the leading punctuation with the dropped initial.
- <length>: Adjusts the position of the leading punctuation. hang or intrude must be specified. Shifts the punctuation from that position by the specified length in the inline progression direction.

**Applies to:** <fo:block>

**Values:** normal | [[hang | intrude] && <length>?]

**Initial:** normal

**Inherited:** yes

axf:initial-letters-leading-punctuation-shift

Specifies the position of the leading punctuation of a dropped initial in the block progression direction.

Values have the following meanings:

- normal: Does nothing special. Aligns the leading punctuation with the baseline for horizontal writing and aligns it with the center for vertical writing.

- baseline: Aligns the leading punctuation with the baseline of the last line.
- before: Aligns the leading punctuation with the before side of the dropped initial.
- middle: Aligns the leading punctuation with the center of the dropped initial.
- after: Aligns the leading punctuation with the after side of the dropped initial.
- `<length>`: Specifies the baseline-shift amount of the leading punctuation. If it is specified at the same time as baseline, before, middle, and after, it is the shift amount from that position.

**Applies to:** `<fo:block>`

**Values:** normal | [[baseline | before | middle | after] || `<length>`]

**Initial:** normal

**Inherited:** yes

axf:initial-letters-start-intrusion

Specifies the alignment of a float on the start side of the dropped initial.

**Applies to:** `<fo:block>`

**Values:** none | first-line

**Initial:** none

**Inherited:** yes

Values have the following meanings:

- none: Aligns the float on the after side, avoiding the dropped initial.
- first-line: If the anchor of the `<fo:float>` is after the dropped initial and at the start line of the block, aligns the float on the start side of the dropped initial. If this is not the case, aligns it on the after side, avoiding the dropped initial. However, if the following conditions are not met, it is considered `axf:initial-letters-start-intrusion="none"` and aligned on the after side.



- When `axf:float-x` is other than none
- When `axf:float-wrap` is wrap

Specifies the alignment of a float when the anchor of the float, that has `axf:float-x="start"` and is included in the block with dropped initial specified, exists after the dropped initial. A float with an anchor before the dropped initial will be aligned on the start side regardless of this setting.

This property is not effective when `intrusion-displace="block"` is specified, because floats are always aligned outside the block.

#### `axf:initial-letters-width`

Specifies the width of a dropped initial.

Values have the following meanings:

- `auto`: The width of a dropped initial is calculated from the included character string or image.
- `<length>`  
`<percentage>`: Forces the width of a dropped initial to the specified width.

**Applies to:** `<fo:block>`

**Values:** `auto` | `<length>` | `<percentage>`

**Initial:** `auto`

**Inherited:** `yes`

#### `axf:initial-letters-text-align`

Specifies the alignment of a dropped initial.

When the value of `axf:initial-letters-width` is `auto`, it has no effect because there is no room for right alignment.

**Applies to:** `<fo:block>`

**Values:** `start` | `center` | `end` | `left` | `right`

**Initial:** `end`

**Inherited:** yes

axf:initial-letters-color

Specifies the text color of a dropped initial.

**Applies to:** <fo:block>

**Values:** <color>

**Initial:** the value of the [color](#) property

**Inherited:** yes

axf:initial-volume-number

Specifies the initial volume number in multi separate volume.

This value is applied for the [format](#) property and utilized for the PDF file name to output. In the following example, the file name of the separate volume is document-2.pdf, document-3.pdf, document-4.pdf, and so on:

```
<axf:output-volume-info initial-volume-number="2" format="-1"/>
```

**Applies to:** <axf:output-volume-info>

**Values:** <number>

**Initial:** 1

**Inherited:** no

axf:inline-overflow-align

Makes adjustments when the blocks in <fo:inline-container> overflow.

Values have the following meanings:

- normal: Does nothing. axf:inline-overflow-align is invalid.

- start

  - end

  - left

  - right: Shifts the blocks on the specified side of the reference area that contains <fo:inline-container>.

**Applies to:** <fo:inline-container>

**Values:** normal | start | end | left | right

**Initial:** normal

**Inherited:** yes

`axf:justify-nbsp`

Specifies whether to justify NON-BREAKING SPACE or not.

Generally, NON-BREAKING SPACE (U+00A0) is intended for justification. The `axf:justify-nbsp` property can be used when you want to check off U+00A0 from justification.

Values have the following meanings:

- `true`: NON-BREAKING SPACE is included for justification.
- `false`: NON-BREAKING SPACE is not included for justification.

**Applies to:** all formatting objects

**Values:** true | false

**Initial:** true

**Inherited:** yes

`axf:kansuji-grouping-letter`

Specifies the grouping character used for Japanese numerals. For details, see `axf:kansuji-grouping-letter` in XSL/CSS Extensions in Features of the Online Manual.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** yes

`axf:kansuji-letter`

Specifies the character used for Japanese numerals. For details, see `axf:kansuji-letter` in XSL/CSS Extensions in Features of the Online Manual.

**Applies to:** all block-level and inline-level formatting objects

**Values:** kanji | latin | `<string>`

**Initial:** kanji

**Inherited:** yes

axf:kansuji-style

Specifies the style used for Japanese numerals. For details, see axf:kansuji-style in XSL/CSS Extensions in Features of the Online Manual.

**Applies to:** all block-level and inline-level formatting objects

**Values:** simple | grouping | readable

**Initial:** simple

**Inherited:** yes

axf:keep-together-within-dimension

Specifies the upper limit height of the [keep-together](#) condition.

If [keep-together.within-page](#) or [.within-column](#) is not auto, you can specify the height for [keep-together](#) to apply to that block. When it is all, the height is not restricted. If you specify a height with `<length>`, [keep-together](#) will be applied to that height, but after that it behaves as if auto was specified for [keep-together](#). For example, if you want to specify [keep-together.within-page="always"](#) for a block, but want to break it if it is a block that exceeds the height of the page, specify as follows:

```
<fo:block keep-together.within-page="always"  
  axf:keep-together-within-dimension="100vh">
```

**Applies to:** block level formatting object

**Values:** all | `<length>`

**Initial:** all

**Inherited:** no

axf:keep-together-within-inline-dimension

Specifies the upper limit width of the [keep-together.within-line](#) condition.

When [keep-together.within-line](#) is not auto, you can specify the width to apply [keep-together.within-line](#) to the block. When all is specified, the width is not limited. If you specify a width with `<length>`, [keep-together](#) is applied up to that width, but for a width longer than that, [keep-together](#) behaves as if auto is specified.

**Applies to:** block level formatting object

**Values:** all | `<length>`

**Initial:** all

**Inherited:** no

axf:kerning-mode

Specifies whether to process the kerning.

You can specify whether pair kerning is performed or not by [pair-kerning](#) in the Option Setting File. This can also be set in the Format Option Setting dialog in GUI.

Values have the following meanings:

- none: The kerning is not processed.
- pair: The pair kerning is processed.
- auto: Dependent on the system setting.

**Applies to:** all block-level and inline-level formatting objects

**Values:** none | pair | auto

**Initial:** auto

**Inherited:** yes

axf:layer

Specifies to which layer the area is arranged.

Values have the following meanings:

- none: The area is arranged to no layer.
- <layer-name>: The area is arranged to the layer with the name specified by `axf:layer-settings`.

**Applies to:** formatting object that generates area

**Values:** none | <layer-name>

**Initial:** none

**Inherited:** yes

`axf:layer-settings`

Defines layers.

- <layer-setting> = <layer-name> [on | off]? [ intent [view | design] || view [on | off] || print [on | off] || export [on | off] || lang <string> preferred? || zoom <number> <number>? || locked ]?
- <layer-name> = <string>

Values have the following meanings:

- none: No definition.
- <layer-setting>: Multiple layers can be defined by comma-separated items. What is essential for layer definition is <layer-name>. Other parameters are optional.
- <layer-name>: Specifies a name to identify the layer. on or off specifies the default state of the layer when the document is opened. If omitted, it is assumed to be on. If view, print, export are not specified, the value specified here will be referenced.
- intent: Specifies the intent of the layer. When view is specified, showing and hiding layers can be toggle. When design is specified, these cannot be toggled. If omitted, it is assumed to be view.
- view: Specifies whether to show or hide the layer. Displayed when the document is opened with on, it is hidden with off.
- print: Specifies whether to print the layer. It is printed by on and not printed by off.

- **export:** Specifies whether to include the layer in the exported result. It is included by `on` and not included by `off`.
- **lang:** Specifies the language of the layer. Displays the layer if the language of the PDF viewer application matches the specified `lang` when the document is opened. `preferred` also displays the layer when the language of the viewer partially matches `lang`. Whether the string of `lang` is valid or not depends on the PDF viewer application.
- **zoom:** Specifies the minimum and maximum values of the magnification of the displayed layer. If only one value is specified, the minimum value is set.
- **locked:** Locks the layer and disables editing. `locked` is effective with PDF1.6 or later.

In PDF/X, PDF/A and PDF/UA, the settings of `view`, `print`, and `export` are ignored.

**Applies to:** `<fo:root>`

**Values:** `none` | `<layer-setting>#`

**Initial:** `none`

**Inherited:** `no`

`axf:leader-expansion`

Specifies whether to expand a leader forcibly.

Values have the following meanings:

- `auto`: Operates as usual by specifying `text-align`.
- `force`: Considers a line with leaders as `text-align="justify"`. Consequently, leaders will expand.

For illustrated examples, see `axf:leader-expansion` in XSL/CSS

Extensions in Features of the Online Manual.

**Applies to:** `<fo:block>`

**Values:** `auto` | `force`

**Initial:** auto

**Inherited:** yes

axf:left-page-master-reference

Master name of the page master for the left page of a two-page spread. axf:left-page-master-reference refers to the page master that defines the page size and the non-spread regions for the left-hand page of a two-page spread.

Values have the following meanings:

- `<name>`: The name must refer to a master-name that exists within the document.

**Applies to:** `<axf:spread-page-master>`

**Values:** `<name>`

**Initial:** N/A, a value is required

**Inherited:** no

axf:letter-spacing-side

Specifies on which side of the character the space by `letter-spacing` is distributed.

Values have the following meanings:

- `both`: Half the amount of space is distributed on both side of the character for each.
- `start`: The space is distributed only on the start side of the character.
- `end`: The space is distributed only on the end side of the character.

**Applies to:** inline-level formatting objects

**Values:** `both` | `start` | `end`

**Initial:** `both`

**Inherited:** yes



## axf:ligature-mode

Specifies whether to perform the ligature processing.

The ligature processed here is the ligature defined in the font itself. The ligature defined in Unicode are not processed. (It is called Canonical Composition.) In order to normalize ligatures defined in Unicode Standard, specify `axf:normalize="nfc"`.

Values have the following meanings:

- none: The ligature processing is not performed.
- latin: Processes the ligature in Western languages. It is processed when the scripts are the following: Latn, Grek, Cysl.
- kana: Processes the ligature of Kana + semivoiced sound symbol in JIS X 0213:2004 as follows: U+304B + U+309A, U+304D + U+309A, U+304F + U+309A, U+3051 + U+309A, U+3053 + U+309A, U+30AB + U+309A, U+30AD + U+309A, U+30AF + U+309A, U+30B1 + U+309A, U+30B3 + U+309A, U+30BB + U+309A, U+30C4 + U+309A, U+30C8 + U+309A, U+31F7 + U+309A.

Although the ligature of Western languages and the ligature of symbols are included in JIS X 0213:2004, these are processed by `axf:ligature-mode="latin"`.

- jamo: Processes the ligature of Hangul Jamo U+1100 to U+11FF.
- all: latin kana jamo is considered to be specified.
- auto: The ligature of kana is performed. `latin-ligature` in the Option Setting File will decide whether to perform the ligature of Western words. This setting can also be done with the Format Option Setting dialog in GUI. Whether to process the ligature of Hangul Jamo depends on `jamo-ligature` in the Option Setting File.

**Applies to:** all block-level and inline-level formatting objects

**Values:** none | [ latin || kana || jamo ] | all | auto

**Initial:** auto

**Inherited:** yes

## axf:line-break

Specifies the method of line breaking.

Values have the following meanings:

- auto: It is assumed that normal is specified.
- normal: CJK Nonstarter characters (prolonged sound mark, small hiragana letters, small katakana letters, and iteration marks) defined in JIS X 4051:2004 are not treated as Nonstarter characters. Characters marked with [NS] in the following list are processed.
- strict: CJK Nonstarter character is treated. Characters marked with [NS] and [JIS] in the following list are processed.
- line: Line breaking is performed one by one by a simple algorithm.
- bpil: Line breaking is performed according to the line breaking algorithm by Knuth-Plass's Breaking Paragraphs into Lines. At this time, the [bpil](#) specification in the Option Setting File is ignored. Depending on the conditions, this algorithm may not be applicable. See Line Breaking in Technical Notes in Technical of the Online Manual.

If neither normal nor strict is specified, it is assumed that normal is specified. When neither line nor bpil is specified, the algorithm is selected according to the specification of [bpil](#) in the Option Setting File. For more details, see Line Breaking in Technical Notes in Technical of the Online Manual.

The line breaking other than Nonstarter characters in CJK complies with [UAX#14: Line Breaking Properties](#). At this time, characters specified to the properties of [axf:append-non-starter-characters](#), [axf:except-non-starter-characters](#), [axf:append-non-end-of-line-characters](#) and [axf:except-non-end-of-line-characters](#) are included.

**Applies to:** all block-level formatting objects

**Values:** auto | [[normal | strict] || [line | bpil]]

**Initial:** auto

## Inherited: yes

The CJK Nonstarter character is as follows:

U+203C DOUBLE EXCLAMATION MARK !! [NS]  
U+203D INTERROBANG ? [NS]  
U+2047 DOUBLE QUESTION MARK ?? [NS]  
U+2048 QUESTION EXCLAMATION MARK ?! [NS]  
U+2049 EXCLAMATION QUESTION MARK !? [NS]  
U+3005 IDEOGRAPHIC ITERATION MARK 々 [NS] [JIS]  
U+301C WAVE DASH ~ [NS]  
U+303B VERTICAL IDEOGRAPHIC ITERATION MARK ㄣ [NS] [JIS]  
U+303C MASU MARK ㄩ [NS]  
U+3041 HIRAGANA LETTER SMALL A あ [JIS]  
U+3043 HIRAGANA LETTER SMALL I い [JIS]  
U+3045 HIRAGANA LETTER SMALL U う [JIS]  
U+3047 HIRAGANA LETTER SMALL E え [JIS]  
U+3049 HIRAGANA LETTER SMALL O お [JIS]  
U+3063 HIRAGANA LETTER SMALL TU っ [JIS]  
U+3083 HIRAGANA LETTER SMALL YA や [JIS]  
U+3085 HIRAGANA LETTER SMALL YU ゅ [JIS]  
U+3087 HIRAGANA LETTER SMALL YO よ [JIS]  
U+308E HIRAGANA LETTER SMALL WA わ [JIS]  
U+3095 HIRAGANA LETTER SMALL KA か [JIS]  
U+3096 HIRAGANA LETTER SMALL KE け [JIS]  
U+309B KATAKANA-HIRAGANA VOICED SOUND MARK ˆ [NS]  
U+309C KATAKANA-HIRAGANA SEMI-VOICED SOUND MARK ˚ [NS]  
U+309D HIRAGANA ITERATION MARK ㄥ [NS] [JIS]  
U+309E HIRAGANA VOICED ITERATION MARK ㄷ [NS] [JIS]  
U+30A0 KATAKANA-HIRAGANA DOUBLE HYPHEN = [NS]  
U+30A1 KATAKANA LETTER SMALL A ア [JIS]  
U+30A3 KATAKANA LETTER SMALL I イ [JIS]

U+30A5 KATAKANA LETTER SMALL U ウ [JIS]  
U+30A7 KATAKANA LETTER SMALL E エ [JIS]  
U+30A9 KATAKANA LETTER SMALL O オ [JIS]  
U+30C3 KATAKANA LETTER SMALL TU ツ [JIS]  
U+30E3 KATAKANA LETTER SMALL YA ヤ [JIS]  
U+30E5 KATAKANA LETTER SMALL YU ユ [JIS]  
U+30E7 KATAKANA LETTER SMALL YO ヨ [JIS]  
U+30EE KATAKANA LETTER SMALL WA ワ [JIS]  
U+30F5 KATAKANA LETTER SMALL KA カ [JIS]  
U+30F6 KATAKANA LETTER SMALL KE ケ [JIS]  
U+30FB KATAKANA MIDDLE DOT ・ [NS]  
U+30FC KATAKANA-HIRAGANA PROLONGED SOUND MARK ー [JIS]  
U+30FD KATAKANA ITERATION MARK ヽ [NS] [JIS]  
U+30FE KATAKANA VOICED ITERATION MARK ヅ [NS] [JIS]  
U+31F0 KATAKANA LETTER SMALL KU ク [JIS]  
U+31F1 KATAKANA LETTER SMALL SI シ [JIS]  
U+31F2 KATAKANA LETTER SMALL SU ス [JIS]  
U+31F3 KATAKANA LETTER SMALL TO ト [JIS]  
U+31F4 KATAKANA LETTER SMALL NU ヌ [JIS]  
U+31F5 KATAKANA LETTER SMALL HA ハ [JIS]  
U+31F6 KATAKANA LETTER SMALL HI ヒ [JIS]  
U+31F7 KATAKANA LETTER SMALL HU フ [JIS]  
U+31F8 KATAKANA LETTER SMALL HE ヘ [JIS]  
U+31F9 KATAKANA LETTER SMALL HO ホ [JIS]  
U+31FA KATAKANA LETTER SMALL MU ム [JIS]  
U+31FB KATAKANA LETTER SMALL RA ラ [JIS]  
U+31FC KATAKANA LETTER SMALL RI リ [JIS]  
U+31FD KATAKANA LETTER SMALL RU ル [JIS]  
U+31FE KATAKANA LETTER SMALL RE レ [JIS]  
U+31FF KATAKANA LETTER SMALL RO ロ [JIS]

U+FE54 SMALL SEMICOLON ; [NS]  
U+FE55 SMALL COLON : [NS]  
U+FF1A FULLWIDTH COLON : [NS]  
U+FF1B FULLWIDTH SEMICOLON ; [NS]  
U+FF65 HALFWIDTH KATAKANA MIDDLE DOT ・ [NS]  
U+FF67 HALFWIDTH KATAKANA LETTER SMALL A ァ [JIS]  
U+FF68 HALFWIDTH KATAKANA LETTER SMALL I イ [JIS]  
U+FF69 HALFWIDTH KATAKANA LETTER SMALL U ウ [JIS]  
U+FF6A HALFWIDTH KATAKANA LETTER SMALL E エ [JIS]  
U+FF6B HALFWIDTH KATAKANA LETTER SMALL O オ [JIS]  
U+FF6C HALFWIDTH KATAKANA LETTER SMALL YA ヤ [JIS]  
U+FF6D HALFWIDTH KATAKANA LETTER SMALL YU ユ [JIS]  
U+FF6E HALFWIDTH KATAKANA LETTER SMALL YO ヨ [JIS]  
U+FF6F HALFWIDTH KATAKANA LETTER SMALL TU ヲ [JIS]  
U+FF70 HALFWIDTH KATAKANA-HIRAGANA PROLONGED SOUND MARK ー [JIS]  
U+FF9E HALFWIDTH KATAKANA VOICED SOUND MARK っ [NS]  
U+FF9F HALFWIDTH KATAKANA SEMI-VOICED SOUND MARK っ [NS]

[NS] is classified into NS in [Line Break Properties](#). [JIS] is classified into the Nonstarter character in JIS X 4051:2004.

axf:line-continued-mark

When the line with long text strings is broken and continues to the next line, line continued marks can be applied to the end of line. It is invalid inside `<fo:float>` or `<fo:footnote>`.

Values have the following meanings:

- `<string>`: Line continued marks with the specified character strings are shown. If the character strings are empty, line continued marks are not shown.

**Applies to:** all block-level formatting objects that are descendants of `<fo:flow>`

**Values:** <string>

**Initial:** empty string

**Inherited:** yes

axf:line-continued-mark-background-color

Specifies the background color of line continued marks.

**Applies to:** all block-level formatting objects that are descendants of <fo:flow>

**Values:** <color>

**Initial:** transparent

**Inherited:** yes

axf:line-continued-mark-color

Specifies the color of line continued marks.

**Applies to:** all block-level formatting objects that are descendants of <fo:flow>

**Values:** <color>

**Initial:** depends on the current line area

**Inherited:** yes

axf:line-continued-mark-font-family

Specifies the font family of line continued marks.

**Applies to:** all block-level formatting objects that are descendants of <fo:flow>

**Values:** [ <family-name> | <generic-family> ]#

**Initial:** depends on the current line area

**Inherited:** yes

axf:line-continued-mark-font-size

Specifies the font size of line continued marks.

**Applies to:** all block-level formatting objects that are descendants of

`<fo:flow>`

**Values:** `<absolute-size>` | `<relative-size>` | `<length>` | `<percentage>`

**Initial:** depends on the current line area

**Inherited:** yes

axf:line-continued-mark-font-style

Specifies whether to make the font style italic of line continued marks.

**Applies to:** all block-level formatting objects that are descendants of

`<fo:flow>`

**Values:** normal | italic

**Initial:** depends on the current line area

**Inherited:** yes

axf:line-continued-mark-font-weight

Specifies the font weight of line continued marks.

**Applies to:** all block-level formatting objects that are descendants of

`<fo:flow>`

**Values:** normal | bold | bolder | lighter | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000

**Initial:** depends on the current line area

**Inherited:** yes

axf:line-continued-mark-offset

Specifies the offset of line continued marks.

**Applies to:** all block-level formatting objects that are descendants of

`<fo:flow>`

**Values:** `<length>`

**Initial:** 0pt

**Inherited:** yes

axf:line-number

Specifies whether to show line numbers.

Values have the following meanings:

- none: Line numbers are not generated.
- show: Line numbers are shown.
- hide: Line numbers are not shown but the numbers of the line are counted.

Line numbers are counted against the lines inside the block where axf:line-number="show" or axf:line-number="hide" is specified.

**Applies to:** all block-level formatting objects that are descendants of [<fo:flow>](#), [<fo:table-column>](#)

**Values:** none | show | hide

**Initial:** none

**Inherited:** yes (except for [<fo:table-column>](#))

If axf:line-number is specified to [<fo:table-column>](#), independent line numbers are given to the column of the table. At this time, the same setting available for [<fo:page-sequence>](#) can be specified. The ID reference can be specified to [<fo:table-column>](#) as axf:line-number-initial="#xxx".

The ID must be the same as the one specified to the existing [<fo:table-column>](#). The value specified to that column is adopted as the default value of the line number information. A reference to a following column is invalid.

The following shows the example:

```
...
<fo:page-sequence ... axf:line-number="show"/>
...
<fo:table>
  <fo:table-column/>
  <fo:table-column axf:line-number="show" id="c2"/>
  <fo:table-body>
```



```
...
</fo:table-body>
</fo:table>
```

In this table, line numbers specified to `<fo:page-sequence>` are given to the left column and line numbers specified to `<fo:table-column id="c2">` are given to the right column independently. In the following table, if you specify as follows:

```
<fo:table>
  <fo:table-column/>
  <fo:table-column axf:line-number="show" axf:line-number-initial="#c2"/>
  <fo:table-body>
    ...
  </fo:table-body>
</fo:table>
```

then, line numbers of the right column will continue in sequence from the previous table.

`axf:line-number-background-color`

Specifies the background color of line numbers.

**Applies to:** all block-level formatting objects that are descendants of `<fo:flow>`, `<fo:table-column>`

**Values:** `<color>`

**Initial:** transparent

**Inherited:** yes

`axf:line-number-color`

Specifies the color of line numbers.

**Applies to:** all block-level formatting objects that are descendants of `<fo:flow>`, `<fo:table-column>`

**Values:** `<color>`

**Initial:** the value of the 'color' property

**Inherited:** yes

axf:line-number-display-align

Specifies the alignment, in the block-progression-direction, of line numbers in the line area.

Values have the following meanings:

- before: Align the line numbers in the upper end of the line area.
- center: Align the line numbers in the middle of the line area.
- after: Align the line numbers in the lower end of the line area.
- auto: It is considered after in horizontal writing, and center in vertical writing.

**Applies to:** all block-level formatting objects that are descendants of `<fo:flow>`, `<fo:table-column>`

**Values:** auto | before | center | after

**Initial:** auto

**Inherited:** yes

axf:line-number-except-continued-line

Specifies whether to add line numbers except for continued lines.

Values have the following meanings:

- true: When a long line wraps, only the first line is numbered. At this time, the continued lines is not counted in the number of lines.
- false: Adds line numbers to all lines.

**Applies to:** all block-level formatting objects that are descendants of `fo:flow`, `fo:table-column`

**Values:** true | false

**Initial:** false

**Inherited:** yes

axf:line-number-font-family

Specifies the font family of line numbers.

**Applies to:** all block-level formatting objects that are descendants of [<fo:flow>](#), [<fo:table-column>](#)

**Values:** [ [<family-name>](#) | [<generic-family>](#) ]#

**Initial:** depends on UA

**Inherited:** yes

axf:line-number-font-size

Specifies the font size of line numbers.

**Applies to:** all block-level formatting objects that are descendants of [<fo:flow>](#), [<fo:table-column>](#)

**Values:** [<absolute-size>](#) | [<relative-size>](#) | [<length>](#) | [<percentage>](#)

**Initial:** medium

**Inherited:** yes

axf:line-number-font-style

Specifies whether to make the font style italic.

**Applies to:** all block-level formatting objects that are descendants of [<fo:flow>](#), [<fo:table-column>](#)

**Values:** normal | italic

**Initial:** normal

**Inherited:** yes

axf:line-number-font-weight

Specifies the font weight of line numbers.

**Applies to:** all block-level formatting objects that are descendants of [<fo:flow>](#), [<fo:table-column>](#)

**Values:** normal | bold | bolder | lighter | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000

**Initial:** normal

**Inherited:** yes

axf:line-number-format

Specifies the format of line numbers. Line numbers are shown as the specified format. The way to specify is the same as that for the [format](#) property.

**Applies to:** [<fo:page-sequence>](#), [<fo:table-column>](#)

**Values:** [<string>](#)

**Initial:** 1

**Inherited:** no

axf:line-number-initial

Specifies the line number of the first line.

Values have the following meanings:

- [auto](#): Line numbers are not initialized, and it is succeeded from previous [<fo:page-sequence>](#). When previous [<fo:page-sequence>](#) does not exist, it becomes 1.
- [<number>](#): Initializes the line number with the specified value. The value must be greater than or equal to 1. Actual initialization takes place at the time when [axf:line-number-reset](#) is specified.
- [#<id>](#): This extension can only be specified to [<fo:table-column>](#) to continue line numbers of [<fo:table-column>](#) in sequence. See also [axf:line-number](#).

**Applies to:** [<fo:page-sequence>](#), [<fo:table-column>](#)

**Values:** [auto](#) | [<number>](#) | [#<id>](#)

**Initial:** auto

**Inherited:** no

### axf:line-number-interval

Specifies the interval of line numbers.

Values have the following meanings:

- auto: The specification of previous `<fo:page-sequence>` is succeeded. When previous `<fo:page-sequence>` does not exist, it becomes 1.
- `<number>`: Sets the interval of the line numbers to the value specified.

Specifies to show the line numbers like 5, 10, 15. In

this case, `axf:line-number-initial="1" axf:line-number-start="5" axf:line-number-interval="5"` can be applied.

**Applies to:** `<fo:page-sequence>`, `<fo:table-column>`

**Values:** auto | `<number>`

**Initial:** auto

**Inherited:** no

### axf:line-number-offset

Specifies the offset of line numbers.

**Applies to:** all block-level formatting objects that are descendants of `<fo:flow>`, `<fo:table-column>`

**Values:** `<length>`

**Initial:** 0pt

**Inherited:** yes

### axf:line-number-orientation

Rotates line numbers with specified degrees.

**Applies to:** `<fo:page-sequence>`, `<fo:table-column>`

**Values:** 0 | 90 | 180 | 270 | -90 | -180 | -270

**Initial:** 0

**Inherited:** no

### axf:line-number-position

Specifies the position of line numbers.

Values have the following meanings:

- start: Places line numbers at start-edge.
- end: Places line numbers at end-edge.
- inside: Places line numbers at start-edge on odd pages, at end-edge on even pages.
- outside: Places line number at end-edge on odd pages, at start-edge on even pages.
- alternate: Places line number at end-edge in the last column of a column layout, except for the last column, places it at start-edge. If the layout is non-column, places it at start-edge.

**Applies to:** all block-level formatting objects that are descendants of `<fo:flow>`, `<fo:table-column>`

**Values:** start | end | inside | outside | alternate

**Initial:** start

**Inherited:** yes

### axf:line-number-prefix

Specifies the prefix for line numbers. Specified string will be output before each line number generated by `axf:line-number`.

**Applies to:** `<fo:page-sequence>`, `<fo:table-column>`

**Values:** `<string>`

**Initial:** empty string

**Inherited:** no

### axf:line-number-reset

Resets line numbering.

Line numbers are reset to the value specified to `axf:line-number-initial`.

Values have the following meanings:

- auto: The specification of previous `<fo:page-sequence>` is succeeded. When the previous `<fo:page-sequence>` does not exist, it will become none.
- none: Line numbers are not reset.
- page: Line numbers are reset when pages break.
- column: Line numbers are reset when columns break.
- force: Line numbers are reset forcibly. It can be specified to `<fo:block>`.

CAUTION: force can be specified only to `<fo:block>`. On the contrary, other values cannot be specified to `<fo:block>`.

**Applies to:** `<fo:page-sequence>`, `<fo:block>`, `<fo:table-column>`

**Values:** auto | none | page | column | force

**Initial:** auto

**Inherited:** no

#### axf:line-number-show

Specifies the line number to be always output. Always outputs the numbers specified here even if numbers are not outputted by `axf:line-number-interval`, etc.

**Applies to:** `<fo:page-sequence>`, `<fo:table-column>`

**Values:** <number>\*

**Initial:** empty

**Inherited:** no

#### axf:line-number-start

Specifies the starting line number. Line numbers are shown when the value is greater than or equal to the value specified here. When `axf:line-number-initial="1"` `axf:line-number-start="5"` are specified, the first 4 line numbers are not shown but the 5th line number will be outputted as the beginning number. When `axf:line-number-initial="5"`

`axf:line-number-start="6"` are specified, the first line number is not shown but the next line number is outputted as 6.

Values have the following meanings:

- `auto`: The specification of the previous `<fo:page-sequence>` is succeeded. When the previous `<fo:page-sequence>` does not exist, it will become 1.
- `<number>`: Sets the line number that begins outputting to the value specified.

**Applies to:** `<fo:page-sequence>`

**Values:** `auto` | `<number>`

**Initial:** `auto`

**Inherited:** `no`

`axf:line-number-text-align`

Specifies the alignment of line numbers in the line area.

Values have the following meanings:

- `start` | `center` | `end` | `inside` | `outside` | `left` | `right`: Same as `text-align`.
- `auto`: When the position of the line numbers is in the start side, it is considered end. When the position of the line numbers is in the end side, it is considered start. The position of line numbers is specified by `axf:line-number-position`.

When `axf:line-number-width` is not specified, it is always considered `auto`.

**Applies to:** all block-level formatting objects that are descendants of `<fo:flow>`, `<fo:table-column>`

**Values:** `auto` | `start` | `center` | `end` | `inside` | `outside` | `left` | `right`

**Initial:** `auto`

**Inherited:** `yes`



#### axf:line-number-text-decoration

Specifies the text decoration of line numbers.

Values have the same meaning as [text-decoration](#).

**Applies to:** all block-level formatting objects that are descendants of [<fo:flow>](#), [<fo:table-column>](#)

**Values:** same as [text-decoration](#)

**Initial:** none

**Inherited:** yes

#### axf:line-number-width

Specifies the width of line numbers.

Values have the following meanings:

- **auto:** The width of line numbers becomes the width of the text of the line.
- **<length>:** When specifying the arrangement of line numbers by [axf:line-number-text-align](#), the value other than auto should be specified for the width.

**Applies to:** all block-level formatting objects that are descendants of [<fo:flow>](#), [<fo:table-column>](#)

**Values:** auto | [<length>](#)

**Initial:** auto

**Inherited:** yes

#### axf:media-activation

Specifies when to activate / deactivate the rich media.

Values have the following meanings (values are case insensitive, values other than these are ignored):

- **ExplicitlyActivated:** Activates when the content is clicked. It can be abbreviated as XA.

- PageOpen: Activates when the page containing the content is opened. It can be abbreviated as PO.
- PageVisible: Activates when the page containing the content is displayed. It can be abbreviated as PV.
- ExplicitlyDeactivated: Deactivates when “Disable Content” is selected from the context menu. It can be abbreviated as XD.
- PageClose: Deactivates when the page containing the content is closed. It can be abbreviated as PC.
- PageInvisible: Deactivates when the page containing the content is not displayed. It can be abbreviated as PI.

If omitted, it is considered ExplicitlyActivated ExplicitlyDeactivated. This setting is effective when Rich media is activated.

**Applies to:** <fo:external-graphic>

**Values:** [ ExplicitlyActivated | PageOpen | PageVisible ]?  
[ ExplicitlyDeactivated | PageClose | PageInvisible ]?

**Initial:** empty

**Inherited:** no

axf:media-duration

Specifies the duration of a time period of the multimedia.

**CAUTION:** Whether the setting is effective or not depends on the multimedia data, the viewer or the player. This setting is invalid with the rich media.

Values have the following meanings:

- intrinsic: Plays the multimedia only the period of time that the resource has.
- infinity: Plays the multimedia indefinitely.
- <number>: Plays the multimedia only the specified period of time. The value is the number of seconds.

This setting is invalid when `axf:media-play-mode="once"` is specified.

**Applies to:** <fo:external-graphic>

**Values:** intrinsic | infinity | <number>

**Initial:** intrinsic

**Inherited:** no

axf:media-extraction-policy

Specifies whether the creation of temporary files is allowed or not when playing the multimedia.

CAUTION: Whether the setting is effective or not depends on the multimedia data, the viewer or the player. This setting is invalid with the rich media.

Values have the following meanings:

- tempnever: The creation of temporary files is not allowed.
- tempextract: Only when the “copy of the contents” is given to the user right to access PDF, the creation of temporary files is allowed.
- tempaccess: Only when the “content extraction for accessibility” is given to the user right to access PDF, the creation of temporary files is allowed.
- tempalways: The creation of temporary files is always allowed.

**Applies to:** <fo:external-graphic>

**Values:** tempnever | tempextract | tempaccess | tempalways

**Initial:** tempaccess

**Inherited:** no

axf:media-flash-context-menu

Specifies whether to display the context menu of Flash When embedding Flash in the rich media.

This setting is effective when embedding Flash in the Rich media.

**Applies to:** <fo:external-graphic>

**Values:** true | false

**Initial:** true

**Inherited:** no

axf:media-flash-vars

Specifies the variable when embedding Flash in the rich media.

This setting is effective when embedding Flash in the Rich media.

CAUTION: Even if there are some errors in the described content, these are not detected and output to PDF as is.

**Applies to:** <fo:external-graphic>

**Values:** <string>

**Initial:** empty string

**Inherited:** no

axf:media-play-mode

Specifies the number of times to play the multimedia.

CAUTION: Whether the setting is effective or not depends on the multimedia data, the viewer or the player. This setting is invalid with the rich media.

Values have the following meanings:

- once: Plays the multimedia only one time.
- continuously: Plays the multimedia continuously.
- <number>: Plays the multimedia only the specified number of times.

**Applies to:** <fo:external-graphic>

**Values:** once | continuously | <number>

**Initial:** once

**Inherited:** no

axf:media-skin-auto-hide

Specifies whether to automatically hide Rich Media skins or not.

This setting is effective when the Rich Media is activated.

**Applies to:** <fo:external-graphic>

**Values:** true | false

**Initial:** true

**Inherited:** no

axf:media-skin-color

Specifies the skin color of the Rich Media.

When the color does not contain the  $\alpha$  value, the default  $\alpha$  value is adopted. When  $\alpha$  value is specified, that value is adopted. This setting is effective when the Rich media is activated.

**Applies to:** <fo:external-graphic>

**Values:** auto | <color>

**Initial:** auto

**Inherited:** no

axf:media-skin-control

Specifies the skin control of the Rich Media.

Values have the following meanings:

- none: No controls are displayed.
- all: All controls are displayed.
- play: The playback control is displayed.
- stop: The stop control is displayed.
- forward: The fast-forward control is displayed.
- rewind: The rewind control is displayed.
- seek: The seek control is displayed.
- mute: The mute control is displayed.
- volume: The volume control is displayed.

Other controls may be displayed automatically to display a certain control. This setting is effective when the Rich media is activated.

**Applies to:** <fo:external-graphic>

**Values:** none | all | [ play || stop || forward || rewind || seek || mute  
|| volume ]

**Initial:** all

**Inherited:** no

afx:media-volume

Specifies the volume of the sound when playing the multimedia.

CAUTION: Whether the setting is effective or not depends on the multimedia data, the viewer or the player. It is effective also with the rich media, but when editing the multimedia with Acrobat, this setting seems to be canceled.

**Applies to:** <fo:external-graphic>

**Values:** <percentage> | <number> | auto

**Initial:** auto

**Inherited:** no

afx:media-transparent-background

Specifies whether to make the background transparent when embedding Flash in the Rich Media.

**Applies to:** <fo:external-graphic>

**Values:** true | false

**Initial:** true

**Inherited:** no

afx:media-window-height

Specifies the height of the window when

[afx:multimedia-treatment="richmedia-windowed"](#) is specified. This setting is effective when the Rich media is activated.

**Applies to:** <fo:external-graphic>

**Values:** auto | <length>

**Initial:** auto

**Inherited:** no

axf:media-window-width

Specifies the width of the window when

`axf:multimedia-treatment="richmedia-windowed"` is specified. This setting is effective when the Rich media is activated.

**Applies to:** `<fo:external-graphic>`

**Values:** auto | `<length>`

**Initial:** auto

**Inherited:** no

axf:multimedia-treatment

Specifies whether to embed Multimedia in PDF.

Values have the following meanings:

- auto: The value specified by `multimedia-treatment` in the Option Setting File is adopted.
- embed: Embeds the multimedia objects in PDF. It is not recommended for PDF 2.0 or later.
- absolute-link: Links the multimedia objects in PDF, instead of embedding them. The linked multimedia objects are referred to as the absolute link. It is not recommended for PDF 2.0 or later.
- relative-link: Links the multimedia objects in PDF, instead of embedding them. The linked multimedia objects are referred to as the relative link from either XML or FO. It is not recommended for PDF 2.0 or later.
- richmedia: Embeds the multimedia as Rich media annotation. Effective with PDF1.7 or later.

- `richmedia-windowed`: Embeds the multimedia as Rich media annotation, but displayed in a separate window when playing. Effective with PDF1.7 or later.

**Applies to:** `<fo:external-graphic>`

**Values:** `auto` | `embed` | `absolute-link` | `relative-link` | `richmedia` | `richmedia-windowed`

**Initial:** `auto`

**Inherited:** `yes`

`axf:normalize`

Specifies the normalization of text.

Specifies whether the normalization defined in [UAX#15: Unicode Normalization Forms](#) is performed. The normalization is performed to the character strings described in the text area. If you use only the normalized code from the start, it is not necessary to specify the normalization. If not, the normalization by NFC will be a good choice for practical use.

In these conversions, all the [Composition Exclusions](#) are excluded from the normalization processing when `axf:normalize-exclude="full-composition-exclusion"` is specified.

CAUTION: Keep in mind that `U+00A0`, which is a meaningful code as FO, will be transformed to `U+0020`, etc. by performing the normalization with NFKC, for example.

Values have the following meanings:

- `auto`: Depends on the value of `normalize` specified to the Option Setting File.
- `none`: Does not normalize text.
- `nfc`: Performs NFC.
- `nfkc`: Performs NFKC.
- `nfd`: Performs NFD.



- nfkd: Performs NFKD.

**Applies to:** all block-level and inline-level formatting objects

**Values:** auto | none | nfc | nfkc | nfd | nfkd

**Initial:** auto

**Inherited:** yes

axf:normalize-exclude

Specifies whether [Composition Exclusions](#) are excluded or not when the normalization ([axf:normalize](#)) is specified.

Values have the following meanings:

- full-composition-exclusion: Excludes all the characters specified in [Composition Exclusions](#).
- none: Does not exclude.

**Applies to:** all block-level and inline-level formatting objects

**Values:** full-composition-exclusion | none

**Initial:** full-composition-exclusion

**Inherited:** yes

axf:number-transform

Converts the number sequence in the character string.

Values have the following meanings:

- none: Does nothing.
- kansuji: Converts the contained number sequence into Japanese numerals. The details of the Japanese numeral format can be specified by [axf:kansuji-style](#), [axf:kansuji-letter](#) and [axf:kansuji-grouping-letter](#).
- kansuji-if-vertical: Only with the vertical writing, such as [writing-mode="tb-rl"](#), [axf:number-transform="kansuji"](#) is applied. Does no conversion when it's not the vertical writing.

- `<list-style-type>`: The same value as `list-style-type` can be specified. The range of the value that can be converted varies depending on the style.
- `<string>`: When a character string is specified, the behavior is same as when the character string is specified by `format`.

A number sequence (number) here indicates character strings of the following forms:

`number ::= '-'? digits`

`digits ::= [0-9]+`

When it is simultaneously specified with `text-transform` or `axf:text-replace`, `axf:number-transform` is evaluated first. When a counter style which was specified with `<axf:counter-style>` or `symbols()` is used, prefix/suffix will not be added.

**Applies to:** all block-level and inline-level formatting objects

**Values:** none | kansuji | kansuji-if-vertical | `<list-style-type>` | `<string>`

**Initial:** none

**Inherited:** yes

#### `axf:number-type`

Specifies whether to output the page number or to output the column number.

It can be specified to `<fo:page-number>`, etc. and the column number can be outputted instead of the page number. While `format` property is applied to the format of the page number, `axf:column-number-format` property is applied to the format of the column number. The column number is not outputted if multiple column is not specified by specifying of `column-count="1"` or `span="all"`.

Values have the following meanings:

- `page`: Outputs the page number.

- column: Outputs the column number.
- page-and-column: Outputs both of the page number and the column number.

**Applies to:** <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>

**Values:** page | column | page-and-column

**Initial:** page

**Inherited:** no

#### axf:origin-id

Specifies the origin of the page number.

ID for the origin of the page number can be specified in <fo:page-number> or <fo:page-number-citation>. The output page number is as follows:

[ref-id page] - [origin-id page] + 1

If the specified Page is after the ref-id page, the value becomes 0.

In <fo:page-number>, ref-id is considered the position of <fo:page-number> itself.

**Applies to:** <fo:page-number>, <fo:page-number-citation>, <fo:page-number-citation-last>

**Values:** <idref>

**Initial:** none

**Inherited:** no

#### axf:outline-color

Specifies the color which appears as a title of bookmarks. When transparent is specified, the color information is not set to PDF. This property is effective with PDF1.4 or later.

**Applies to:** block-level formatting objects

**Values:** <color>

**Initial:** transparent

**Inherited:** no

axf:outline-expand

Specifies whether to display the lower hierarchy of bookmark items or not.

true specifies to display the lower hierarchy in the expanded state. false specifies to display in the collapsed state.

**Applies to:** block-level formatting objects

**Values:** true | false

**Initial:** true

**Inherited:** no

axf:outline-external-destination

Sets the external link in the PDF bookmark.

Values have the following meanings:

- `<uri-specification>`: Specifies the URI of the link destination.

**Applies to:** block-level formatting objects

**Values:** `<uri-specification>`

**Initial:** empty string

**Inherited:** no

axf:outline-font-style

Specifies the font style which appears as a title of bookmarks. This property is effective with PDF1.4 or later.

Values have the following meanings:

- normal: Specifies normal style.
- italic: Specifies italic.

**Applies to:** block-level formatting objects

**Values:** normal | italic

**Initial:** normal

**Inherited:** no

afx:outline-font-weight

Specifies the font weight which appears as a title of bookmarks. This property is effective with PDF1.4 or later.

Values have the following meanings:

- normal: Specifies normal weight.
- bold: Specifies bold weight.

**Applies to:** block-level formatting objects

**Values:** normal | bold

**Initial:** normal

**Inherited:** no

afx:outline-group

Groups bookmark items, and outputs them collectively.

If this property is omitted or specifies empty string, bookmark items are not grouped. If this specifies any string, the string is used as the name of group. The group with the same name is outputted collectively.

The non-grouped bookmark is outputted as the group without the group name.

**Applies to:** block-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** no

afx:outline-internal-destination

Sets the internal link in the PDF bookmark.

Values have the following meanings:

- <idref>: Specifies the ID of the link destination.

- `<number-with-fragment>`: Specifies the page number of the link destination. This string is simple numeric characters or the following string that combines numeric characters and a fragment with “#”. See Making Link in XSL/CSS Extensions in Features of the Online Manual for the fragment.

123#zoom=50

The page number also can be specified in the fragment.

#page=123&zoom=50

When the page number is not specified, it is usually considered the 1st page. However, when the top position is specified, it is considered the head of the page of a block where `axf:outline-internal-destination` is contained. For example, it is specified as follows:

#view=fit

#view=fith

#zoom=, ,0

**Applies to:** block-level formatting objects

**Values:** `<idref>` | `<number-with-fragment>`

**Initial:** empty string

**Inherited:** no

`axf:outline-level`

Indicates the hierarchy level of bookmark items.

The `<number>` must be a non-negative integer. Initial value is 0 and it means that bookmarks should not be created. The highest level of bookmarks is 1 and it becomes 2 or more according to the hierarchy level of the bookmarks.

**Applies to:** block-level formatting objects

**Values:** `<number>`

**Initial:** 0

**Inherited:** no

## axf:outline-title

Specifies the string which appears as a title of bookmarks.

If this property is omitted or has an empty string, the text of the object to which the property is added will become the title. In other words, the following two samples create the same bookmark.

```
<fo:block axf:outline-level="2" axf:outline-title="1. Introduction">...  
<fo:block axf:outline-level="2">1. Introduction</fo:block>
```

**Applies to:** block-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** no

## axf:output-volume-break

Separates the file in multi volume.

Specifies `axf:output-volume-break="true"` to [<fo:page-sequence>](#) where you want to start separating the volume. The document number increases one by one. When separating the volume, `axf:output-volume-break="true"` is considered to be always being specified to the first [<fo:page-sequence>](#). If `axf:output-volume-break="false"` is specified explicitly, it is ignored.

Values have the following meanings:

- true: Separates the volume newly from this [<fo:page-sequence>](#).
- false: Do not separates the volume newly from this [<fo:page-sequence>](#).

**Applies to:** [<fo:page-sequence>](#)

**Values:** true | false

**Initial:** false

**Inherited:** no

## axf:output-volume-filename

Specifies the document file name in multi separate volume.

If nothing specified, the automatic file name using the format property is adopted. If this property is specified, the specified name is adopted. This property is effective only with the top `<fo:page-sequence>` or with the `<fo:page-sequence>` where `axf:output-volume-break="true"` is specified. An application example can be found in XSL/CSS Extensions in Features of the Online Manual.

**Applies to:** `<fo:page-sequence>`

**Values:** `<string>`

**Initial:** empty string

**Inherited:** no

`axf:overflow-align`

Specifies the alignment of the overflowed block.

This setting is invalid when `overflow="condense"` is specified.

Values have the following meanings:

- `normal`: Specifies the alignment of the block according to the `text-align` setting.
- `start`: Specifies the alignment of the block to the start side.
- `end`: Specifies the alignment of the block to the end side.
- `center`: Specifies the block to center aligned.

**Applies to:** block-level formatting objects

**Values:** `normal | start | end | center`

**Initial:** `normal`

**Inherited:** `yes`

`axf:overflow-condense`

Specifies how to condense the overflowed text within the region.

When `overflow="condense"` is specified, the text within the region can be condensed by the way specified in the `axf:overflow-condense` property.

The adjustment for condensing the text includes both the inline



progression direction and the block progression direction. There is a difference in the condensing process between inline and block.

Inline condensing process occurs by specifying `<fo:inline-container>`, and block condensing process occurs by specifying `<fo:block-container>`.

For example, if there is an absolute value setting such as `font-size="20pt"` internally, the size setting will not be changed by the condensing process with `font-size`. The same is true for other `font-stretch` and `line-height`.

`text-align-last="justify"` may be set when the condensing process by `font-size` or `font-stretch` in a block occurs. See [axf:condensed-text-align-last](#).

You can specify multiple methods, such as `"font-size font-stretch"`. In this example, if condensing process by `font-size` does not resolve the overflow, condensing process by `font-stretch` will continue to be attempted.

Values have the following meanings:

- `font-size`: Condenses the text by adjusting the font size.
- `font-stretch`: Condenses the text by adjusting the font width.
- `line-height`: Condenses the text by adjusting the line height. There is no condensing process that makes `line-height` negative.
- `letter-spacing`: Condenses the text by adjusting the letter spacing. CAUTION: Condensing process by specifying `letter-spacing` may cause overlapping characters. The display position of characters may also be reversed. We recommend that you avoid extreme condensing process with [axf:overflow-condense-limit-letter-spacing](#).
- `auto`: It is considered `font-size` for the condensing process in the block, `font-stretch` for the condensing process in inline.
- `none`: Specifies not to condense the text. This can also be specified to the inline element and is not inherited.

**Applies to:** all block-level formatting objects

**Values:** [ font-size | font-stretch | line-height | letter-spacing ]+ | auto | none

**Initial:** auto

**Inherited:** yes

axf:overflow-condense-limit-font-size

Specifies the lower limit font size when `axf:overflow-condense="font-size"` is specified.

When the content exceeds the limit shown by `<length>`, the region still overflows. Then a solution can be specified as follows:

```
axf:overflow-condense-limit-font-size="4pt hidden"
```

However, it is ignored when the following condensing method is specified in `axf:overflow-condense`.

CAUTION: When overflow cannot be resolved, such as when there is not enough block height or a large image is included, the condensing process may be terminated before reaching the lower limit value.

**Applies to:** all block-level formatting objects

**Values:** `<length>` none | [ `<length>` [ visible | hidden | error-if-overflow | repeat ]? ]

**Initial:** none

**Inherited:** yes

axf:overflow-condense-limit-font-stretch

Specifies the lower limit value when `axf:overflow-condense="font-stretch"` is specified.

When the content exceeds the limit shown by `<percentage>` or `<number>`, the region still overflows. Then a solution can be specified as follows:

```
axf:overflow-condense-limit-font-stretch="30% hidden"
```

However, it is ignored when the following condensing method is specified in `axf:overflow-condense`.

**CAUTION:** When overflow cannot be resolved, such as when there is not enough block height or a large image is included, the condensing process may be terminated before reaching the lower limit value.

**Applies to:** all block-level formatting objects

**Values:** none | [ [ <number> | <percentage> ] [ visible | hidden | error-if-overflow | repeat ]? ]

**Initial:** none

**Inherited:** yes

`axf:overflow-condense-limit-line-height`

Specifies the lower limit value when `axf:overflow-condense="line-height"` is specified.

Values have the following meanings:

- none: It is considered that 0 is specified.
- <number>: Specifies the lower limit value of line-height. line-height is not made smaller than that value. The value is a percentage against the font size. If you specify less than 0, it is considered that 0 is specified.

When the content exceeds the limit shown by <number>, the region still overflows. Then a solution can be specified as follows:

```
axf:overflow-condense-limit-line-height="1 hidden"
```

However, it is ignored when the following condensing method is specified in `axf:overflow-condense`.

**CAUTION:** When overflow cannot be resolved, such as when there is not enough block height or a large image is included, the condensing process may be terminated before reaching the lower limit value.

**Applies to:** all block-level formatting objects

**Values:** none | [ <number> [ visible | hidden | error-if-overflow | repeat ]? ]

**Initial:** none

**Inherited:** yes

axf:overflow-condense-limit-letter-spacing

Specifies the lower limit value when `axf:overflow-condense="letter-spacing"` is specified.

Values have the following meanings:

- none: It is considered that `-1em` is specified.
- `<length>`: Specifies the lower limit value of letter-spacing. letter-spacing is not made smaller than that value.

When the content exceeds the limit shown by `<length>`, the region still overflows. Then a solution can be specified as follows.

CAUTION: When overflow cannot be resolved, such as when there is not enough block height or a large image is included, the condensing process may be terminated before reaching the lower limit value.

**Applies to:** all block-level formatting objects

**Values:** none | [ `<length>` [ visible | hidden | error-if-overflow | repeat ]? ]

**Initial:** none

**Inherited:** yes

axf:overflow-limit

Specifies the overflow limit value with `<length>`. If a single `<length>` value is specified, it gives both the inline and block overflow limit values. If two `<length>` values are specified, the first gives the inline overflow limit value and the second gives the block overflow limit value. Negative values are invalid.

When `overflow="error-if-overflow"` is specified, overflows greater than the overflow limit value are reported as error level 2 (warning) and smaller overflows are reported as error level 1 (information).

The initial values of the overflow limit can be set by [overflow-limit-inline](#) and [overflow-limit-block](#) in the Option Setting File. This is a shorthand property for setting [axf:overflow-limit-inline](#) and [axf:overflow-limit-block](#).

**Applies to:** all formatting objects

**Values:** `<length>`{1,2}

**Initial:** depends on system

**Inherited:** yes

`axf:overflow-limit-block`

Specifies the block overflow limit value with `<length>`. Negative values are invalid.

For more details, see [axf:overflow-limit](#).

**Applies to:** all formatting objects

**Values:** `<length>`

**Initial:** depends on system

**Inherited:** yes

`axf:overflow-limit-inline`

Specifies the inline overflow limit value with `<length>`. Negative values are invalid.

For more details, see [axf:overflow-limit](#).

**Applies to:** all formatting objects

**Values:** `<length>`

**Initial:** depends on system

**Inherited:** yes

`axf:overflow-replace`

Specifies an alternative character string for the overflowed text.

When `overflow="replace"` is specified, the overflowed text is replaced by repeating the specified string. A complex character string cannot be specified.

**Applies to:** all block-level formatting objects

**Values:** <string>

**Initial:** empty string

**Inherited:** yes

axf:overprint

Specifies the overprint.

Values have the following meanings:

- auto: The setting of the `overprint` in the Option Setting File is adopted. If you specify `overprint="k100"` in the Option Setting File, even if nothing is specified in FO, black overprinting will be done on all pages.
- <color>: Specifies a color you want to apply the overprint. A color with alpha value cannot be specified.
- k100: Applies the overprint to `rgb-icc(#CMYK,0,0,0,1)`.
- separation: Applies the overprint to the separation color shown `rgb-icc(#Separation)`. The registration color is not included.
- all: Applies the overprint to all colors except for a color with alpha value.
- stroke: Applies the overprint for the line stroke.
- paint: Applies the overprint for the paint.
- full  
nonzero: Specifies the operation in case the color ingredient is 0 when applying the overprint. When full is specified, the color ingredient is set to 0, when nonzero is specified, the color ingredient is not changed. (It is considered no color.) This setting is effective only with CMYK.

- none: The overprint is not applied.

For more details see `axf:overprint` in XSL/CSS Extensions in Features of the Online Manual.

**Applies to:** all formatting objects

**Values:** auto | `<overprint>#`

`<overprint>` = `<opcolor>` [[`stroke` || `paint` || [`full` | `nonzero`]] | `none`]?

`<opcolor>` = `<color>` | `k100` | `separation` | `all`

**Initial:** auto

**Inherited:** yes

`axf:page-number-prefix`

Sets the prefix of page number.

CAUTION: A similar function is provided in XSL 1.1. Use

[<fo:folio-prefix>](#).

Specifies the prefix for page numbers. Specified string will be outputted before the page number by [<fo:page-number>](#) and [<fo:page-number-citation>](#). Also this string will be used as the page label in the PDF.

```
<fo:page-sequence axf:page-number-prefix="A-" format="i" initial-page-number="10">
```

```
  <fo:static-content ...>
```

```
    ...<fo:page-number/>...
```

```
  </fo:static-content>
```

```
  ...
```

```
</fo:page-sequence>
```

Arabic and Hebrew cannot be specified for the value of `axf:page-number-prefix`.

**Applies to:** [<fo:page-sequence>](#)

**Values:** `<string>`

**Initial:** empty string

**Inherited:** no

## afx:pdftag

Specifies the tag name of Tagged PDF.

Customizes the tag name when outputting Tagged PDF. When you want to make the tag name of the relevant element “Paragraph”, e.g., specify as follows:

```
<fo:block afx:pdftag="Paragraph">
```

When [new-tagging-mode](#) is set to true, and an empty string is specified explicitly as shown below, that element does not create a tag but belongs to the tag to which the parent area belongs.

```
<fo:block afx:pdftag="">
```

**Applies to:** all formatting objects

**Values:** [<string>](#)

**Initial:** empty string

**Inherited:** no

## afx:physical-page-number

Gets physical page number.

The value of [initial-page-number](#) property is disregarded and the physical page number that is not affected by the page-sequence is obtained. In order to obtain the total number of pages, ID is given to the last page per the following example:

```
<fo:page-number-citation ref-id="lastpage" afx:physical-page-number="true"/>
```

See also [<fo:page-number-citation-last>](#) in XSL 1.1.

**Applies to:** [<fo:page-number>](#), [<fo:page-number-citation>](#),

[<fo:page-number-citation-last>](#)

**Values:** true | false

**Initial:** false

**Inherited:** no



#### axf:poster-content-type

Specifies the content type of the poster image for embedded multimedia.

Values have the following meanings:

- `<string>`: Specifies the content type of the poster image.
- `auto`: Recognizes the content type from the poster image.

See also Multimedia in PDF Output in Output Formats of the Online Manual.

**Applies to:** `<fo:external-graphic>`

**Values:** `<string>` | `auto`

**Initial:** `auto`

**Inherited:** `no`

#### axf:poster-image

Specifies the poster image for embedded multimedia.

Values have the following meanings:

- `<uri-specification>`: Specifies the URL of the poster image. Multimedia, such as video or audio, cannot be specified.
- `none`: Specifies no poster images.
- `auto`: Uses the plain fallback image for the poster image.

See also Multimedia in PDF Output in Output Formats of the Online Manual.

**Applies to:** `<fo:external-graphic>`

**Values:** `<uri-specification>` | `none` | `auto`

**Initial:** `auto`

**Inherited:** `no`

#### axf:printer-bin-selection

Selects the printer tray.

Effective only with the Windows version and functions when outputting to a printer. Whether it is effective also depends on a printer. What can be specified by the character string is the tray name which comes out in each printer setting dialog. This is the tray name acquired from a printer driver. The specified name which does not match to the tray name acquired from a printer driver is invalid. The specified integer needs to match to the tray number acquired from a printer driver.

**Applies to:** <fo:page-sequence>

**Values:** <string> | <integer>

**Initial:** depends on the environment

**Inherited:** no

axf:printer-duplex

Specifies to print in duplex mode.

Effective only with the Windows version and functions when outputting to a printer. Whether it is effective also depends on a printer. Specify the value that is specified by the printer driver. Most printers support following integer values:

1: Simplex Printing.

2: Duplex Printing. Flip on Long(Vertical) Edge.

3: Duplex Printing. Flip on Short(Horizontal) Edge.

**Applies to:** <fo:page-sequence>

**Values:** <integer>

**Initial:** depends on the environment

**Inherited:** no

axf:printer-marks

Specifies the Printing marks, such as a crop mark. Specifies the action of external link.

Values have the following meanings:

- crop: Outputs corner marks. Outputs corner marks to the position of the trim size and the position of the bleed area if it exists. When corner marks are output to both the position of the trim size and the position of the bleed area, they are combinations of crop marks and bleed marks in Japanese style.
- crop-trim: Outputs corner marks only to the position of the trim size (crop marks).
- cross: Outputs cross-shaped marks.
- cross-circle: Outputs cross-shaped marks with concentric circle.
- cross-registration: Outputs registration marks.
- `<uri-specification>`: Original printer marks, color bars, etc. can be outputted by specifying images, such as SVG. Two or more URIs can be specified. Images will be clipped at the bleed area. To avoid clipping, specify `axf:printer-marks-over-content="true"`.

**Applies to:** `<fo:simple-page-master>`

**Values:** [ [ crop | crop-trim ] || [ cross | cross-circle | cross-registration ] || `<uri-specification>+`  ] | none

**Initial:** none

**Inherited:** no

`axf:printer-marks-line-color`

Specifies the line color of printer marks. When the value is auto, the color is considered the registration color.

**Applies to:** `<fo:simple-page-master>`

**Values:** `<color>` | auto

**Initial:** auto

**Inherited:** no

#### afx:printer-marks-line-length

Specifies the line length of printer marks. When the value is auto, the length depends on the system setting. The default length of a printer mark is 10mm, it can be adjusted in the Option Setting File.

**Applies to:** <fo:simple-page-master>

**Values:** <length> | auto

**Initial:** auto

**Inherited:** no

#### afx:printer-marks-line-width

Specifies the line width of printer marks. When the value is auto, the width depends on the system setting. The default width of a printer mark is 0.24pt, it can be adjusted in the Option Setting File.

**Applies to:** <fo:simple-page-master>

**Values:** <length> | auto

**Initial:** auto

**Inherited:** no

#### afx:printer-marks-over-content

Specifies whether printer marks are drawn over the page content.

**Applies to:** <fo:simple-page-master>

**Values:** false | true

**Initial:** false

**Inherited:** no

If true is specified, printer marks can be drawn over the page content.

#### afx:printer-marks-spine-width

Specifies the spine width of the facing page. When a value greater than 0pt is specified, the printing image is assumed to be constructed

as facing pages, the center mark of the spine will be outputted as a spine-width printer mark.

**Applies to:** `<fo:simple-page-master>`

**Values:** `<length>`

**Initial:** 0pt

**Inherited:** no

`axf:printer-marks-zero-margin`

Specifies the margin between the page and the printer marks when `axf:bleed` is 0. When the value is auto, the margin depends on the system setting. The default margin is 3mm, it can be adjusted in the Option Setting File.

**Applies to:** `<fo:simple-page-master>`

**Values:** `<length>` | auto

**Initial:** auto

**Inherited:** no

`axf:punctuation-spacing`

Specifies the trimming spacing between a full width punctuation and a full width character in Japanese.

This space is used for the following space amount specified by `axf:punctuation-trim="adjacent"`.

- Between full width close parenthesis and full width open parenthesis.
- Between full width close parenthesis and full width non punctuation characters.
- Between full width non punctuation character and full width open parenthesis.

The initial value of this space can be set by `punctuation-spacing` in the Option Setting File.

Values have the following meanings:

- `<length>`: Specifies the amount of the trimming space with an absolute value.
- `<percentage>`: It's a relative setting to the font size when actually applied.
- `auto`: Dependent on the system setting. This is the value specified by `punctuation-spacing` in the Option Setting File.

**Applies to:** all block-level and inline-level formatting objects

**Values:** `<length>` | `<percentage>` | `auto`

**Initial:** `auto`

**Inherited:** `yes`

`axf:punctuation-trim`

Specifies whether to treat full width punctuations in Japanese.

For more details see `axf:punctuation-trim` in XSL/CSS Extensions in Features of the Online Manual.

**Applies to:** all block-level and inline-level formatting objects

**Values:** `[none | auto | all | [ [ start | start-except-first ] | [ end | allow-end | end-except-fullstop ] | adjacent ] ]` | `<string>`

**Initial:** `auto`

**Inherited:** `yes`

`axf:quotetype`

Specifies the direction of the quotes.

For non-directional quotation marks such as U+0022, explicitly specify the direction as follows to encourage proper line breaks:

Lorem

```
<fo:character character="&#x22;"
```

```
axf:quotetype="0P"/>ipsum<fo:character character="&#x22;"
```

`axf:quotetype="CL"/>`

dolor sit amet,

Specifying the property to characters other than quotation marks is invalid. See [Quotation Mark](#) in [Technical Notes](#) in [Technical of the Online Manual](#) for how to handle quotation marks. If not specified, the setting there will be used.

Values have the following meanings (they are case insensitive):

- QU: Considered to be a non-directional quotation mark.
- OP: Considered to be an open quotation mark.
- CL: Considered to be a close quotation mark.

**Applies to:** `<fo:character>`

**Values:** QU | OP | CL

**Initial:** empty

**Inherited:** no

`axf:repeat-cell-content-at-break`

Specifies whether to copy the contents of a cell when a cell breaks.

Values have the following meanings:

- true: When the content of table cell fits in table-cell-area without breaking and table-cell-area breaks according to the break of other table-cell in the same row, or according to the break among the multiple rows with [number-rows-spanned](#), usually the content of table-cell-area becomes empty. When `axf:repeat-cell-content-at-break` is specified to `<fo:table-cell>`, the content of the cell before break is copied and repeated.
- false: The content of the cell is not copied.

**Applies to:** `<fo:table-cell>`

**Values:** true | false

**Initial:** false

**Inherited:** no

#### axf:repeat-footnote-in-table-footer

Specifies whether to repeat the `<fo:footnote>` in the `<fo:table-footer>` that is repeated by `table-omit-footer-at-break="false"`.

Values have the following meanings:

- true: Process `<fo:footnote>` repeatedly.
- false: Do not process `<fo:footnote>` repeatedly.

**Applies to:** `<fo:table-footer>`

**Values:** true | false

**Initial:** true

**Inherited:** yes

#### axf:repeat-footnote-in-table-header

Specifies whether to repeat the `<fo:footnote>` in the `<fo:table-header>` that is repeated by `table-omit-header-at-break="false"`.

Values have the following meanings:

- true: Process `<fo:footnote>` repeatedly.
- false: Do not process `<fo:footnote>` repeatedly.

**Applies to:** `<fo:table-header>`

**Values:** true | false

**Initial:** true

**Inherited:** yes

#### axf:repeat-page-sequence-master

Specifies the repetition of the page sequence. When the value is true, if the page output reaches in the end of `<fo:page-sequence-master>` and the page which should still be outputted remains, page output repeats from the start of `<fo:page-sequence-master>`.

**Applies to:** `<fo:page-sequence-master>`

**Values:** true | false



**Initial:** false  
**Inherited:** no

axf:require

Specifies the version of Antenna House Formatter required for formatting.

You can specify the required version of Antenna House Formatter when formatting FO, HTML, etc. Formatting will not be performed if the specified version is not reached. For example, if you specify as follows:

```
axf:require="7.4"
```

only 7.4 or later can format. If you specify as follows:

```
axf:require="7.4.1"
```

only 7.4.1 or later can format. Up to four numbers can be specified.

**Applies to:** [<fo:root>](#)

**Values:** [<string>](#)

**Initial:** empty string

**Inherited:** no

axf:retrieve-table-rows

Specifies the maximum number of [<fo:table-row>](#) in [<fo:marker>](#) referenced from [<fo:retrieve-table-marker>](#).

When multiple rows are retrieved, the number of rows may be inconsistent and the rows may be duplicated. In such cases, specify the maximum number of lines to avoid it. Values less than 1 are considered 1.

**Applies to:** [<fo:retrieve-table-marker>](#)

**Values:** [<integer>](#)

**Initial:** 1

**Inherited:** no

axf:reverse-diagonal-border-color

Specifies the color of the reverse diagonal border.

**Applies to:** all elements which can have borders

**Values:** <color>

**Initial:** the value of the 'color' property

**Inherited:** yes

axf:reverse-diagonal-border-style

Specifies the style of the reverse diagonal border.

**Applies to:** all elements which can have borders

**Values:** <border-style>

**Initial:** none

**Inherited:** no

axf:reverse-diagonal-border-width

Specifies the width of the reverse diagonal border.

**Applies to:** all elements which can have borders

**Values:** <border-width>

**Initial:** medium

**Inherited:** yes

axf:reverse-page

Outputs pages in reverse order.

Values have the following meanings:

- true: Outputs pages in reverse order.
- false: Outputs pages in order.

**Applies to:** <fo:page-sequence>

**Values:** true | false

**Initial:** false

**Inherited:** no

### axf:reverse-page-number

Places page numbers in reverse order.

By specifying `axf:reverse-page-number="true"`, the page number reference in `<fo:page-sequence>` is counted from the last page of `<fo:page-sequence>` in descending order. When pages with different formatting directions are mixed, together with `"true"`, it is available to align the page numbers in one order when outputting PDF.

Values have the following meanings:

- `true`: Places page numbers in reverse order.
- `false`: Places page numbers in order.

**Applies to:** `<fo:page-number>`, `<fo:page-number-citation>`,  
`<fo:page-number-citation-last>`

**Values:** `true` | `false`

**Initial:** `false`

**Inherited:** `no`

### axf:revision-bar-color

Instead of this outdated property, it is recommended to use the `<fo:change-bar-begin>` and `<fo:change-bar-end>` objects provided in XSL 1.1.

### axf:revision-bar-offset

Instead of this outdated property, it is recommended to use the `<fo:change-bar-begin>` and `<fo:change-bar-end>` objects provided in XSL 1.1.

### axf:revision-bar-position

Instead of this outdated property, it is recommended to use the `<fo:change-bar-begin>` and `<fo:change-bar-end>` objects provided in XSL 1.1.

#### axf:revision-bar-style

Instead of this outdated property, it is recommended to use the `<fo:change-bar-begin>` and `<fo:change-bar-end>` objects provided in XSL 1.1.

#### axf:revision-bar-width

Instead of this outdated property, it is recommended to use the `<fo:change-bar-begin>` and `<fo:change-bar-end>` objects provided in XSL 1.1.

#### axf:right-page-master-reference

Master name of the page master for the right page of a two-page spread.

axf:right-page-master-reference refers to the page master that defines the page size and the non-spread regions for the right-hand page of a two-page spread.

Values have the following meanings:

- `<name>`: The name must refer to a `master-name` that exists within the document.

An application example can be found in Spread Page Master Extension in Features of the Online Manual.

**Applies to:** `<axf:spread-page-master>`

**Values:** `<name>`

**Initial:** N/A, a value is required

**Inherited:** no

axf:ruby-align  
axf:ruby-position  
axf:ruby-offset  
axf:ruby-overhang  
axf:ruby-limit-overhang  
axf:ruby-limit-space  
axf:ruby-small-kana  
axf:ruby-font-family  
axf:ruby-font-size  
axf:ruby-minimum-font-size  
axf:ruby-font-style  
axf:ruby-font-weight  
axf:ruby-font-stretch  
axf:ruby-condense  
axf:ruby-color

The use of the Ruby extension is documented comprehensively and with examples in Ruby Extension in Features of the Online Manual. A description of the properties is omitted here.

**Applies to:** <axf:ruby>

**Values:** see above

axf:scope

Specifies the range of cells with which this table header cell is associated. It is the same as the scope attribute in HTML.

**Applies to:** <fo:table-cell>

**Values:** auto | row | col | rowgroup | colgroup | both

**Initial:** auto

**Inherited:** no

#### axf:show-controls

Specifies whether to show the player control bar for multimedia. The control bar is shown under the playing multimedia object. To prevent overlapping the control bar with another object, it is necessary to make enough space below the multimedia object.

**CAUTION:** Whether the control bar is shown or not depends on the multimedia data, the viewer or the player. This setting is invalid with the Rich Media.

**Applies to:** <fo:external-graphic>

**Values:** true | false

**Initial:** false

**Inherited:** no

#### axf:soft-hyphen-treatment

The value auto has the meaning SOFT HYPHEN is deleted except when needed for line breaking.

The value preserve has the meaning SOFT HYPHEN is not deleted and the target glyph is output.

**Applies to:** all formatting elements on block and inline level

**Values:** auto | preserve

**Initial:** auto

**Inherited:** yes

#### axf:suppress-duplicate-footnote

Specifies whether to delete footnotes duplicated in the same page.

Deters the display of duplicated footnotes on the same footnote region when the same footnote is assigned to two or more places in the same page. When `axf:footnote-position="column"` is specified, it is effective only for the footnote in the same column.

**Applies to:** <fo:footnote>

**Values:** true | false

**Initial:** false

**Inherited:** yes

axf:suppress-duplicate-marker-contents

Specifies the removal of duplicate marker references.

When inline consecutive `<fo:retrieve-marker>` refer to `<fo:marker>` with the same content, one `<fo:retrieve-marker>` is removed. For example, in the following case, text and elements between `<fo:retrieve-marker>` are also removed:

```
<fo:retrieve-marker/> – <fo:retrieve-marker/>
```

It does not work in the following cases:

- When `<fo:marker>` is not an inline element
- When `<fo:retrieve-marker>` is not a sibling element.

The same applies to inline consecutive `<fo:retrieve-marker>`.

**Applies to:** all formatting objects

**Values:** true | false

**Initial:** false

**Inherited:** yes

axf:suppress-duplicate-page-number

Specifies to delete the duplicated page numbers.

**CAUTION:** A similar function is provided in XSL 1.1. Use `merge-*-index-key-reference`.

When formatting an index, generally several `<fo:page-number-citation>` line up for one index item. In such case, when `<fo:page-number-citation>` refers to the same page number of the index, duplicate page numbers will be output using the standard property. If true is specified, when the same page number of the previous `<fo:page-number-citation>` is referred,

that page number will be hidden along with the intervening elements (such as commas).

For a detailed example, see `axf:suppress-duplicate-page-number` in XSL/CSS Extensions in Features of the Online Manual.

**Applies to:** all formatting objects

**Values:** true | false

**Initial:** false

**Inherited:** yes

`axf:suppress-folio-prefix`

Invalidates the prefix of page numbers.

Specifies whether to invalidate the prefix set by `<fo:folio-prefix>`.

Values have the following meanings:

- true: Invalidates the prefix.
- false: Validates the prefix.

**Applies to:** `<fo:page-number>`, `<fo:page-number-citation>`,  
`<fo:page-number-citation-last>`

**Values:** true | false

**Initial:** false

**Inherited:** no

`axf:suppress-folio-suffix`

Invalidates the suffix of page numbers.

Specifies whether to invalidate the suffix set by `<fo:folio-suffix>`.

Values have the following meanings:

- true: Invalidates the suffix.
- false: Validates the suffix.

**Applies to:** `<fo:page-number>`, `<fo:page-number-citation>`,  
`<fo:page-number-citation-last>`

**Values:** true | false



**Initial:** false  
**Inherited:** no

`axf:suppress-if-first-on-page`

Specifies whether to suppress the block at the beginning of a page or column.

Values have the following meanings:

- `false`: Does nothing.
- `true`: Suppresses a block when it comes at the beginning of a page or column. Actually, it is hidden but exists as a block of zero size without being deleted, it's effective to refer to id, etc.
- `unless`: Suppresses a block when it comes to a place other than the beginning of a page or column. Actually, it is hidden but exists as a block of zero size without being deleted, it's effective to refer to id, etc.

**Applies to:** `<fo:block>`, `<fo:block-container>`

**Values:** `true` | `false` | `unless`

**Initial:** false

**Inherited:** no

`axf:tab-align`

Specifies the tab alignment at the tab stop position.

- With the default value `auto`, the alignment follows the setting in `axf:tab-stops` in the parent block (`<fo:block>`).
- `start` aligns the start of the string to the tab stop position.
- `center` aligns the center of the string to the tab stop position.
- `end` aligns the end of the string to the tab stop position.
- `left` aligns the left side of the string (the top of the string in case of vertical writing) to the tab stop position. Same as `start` above in case of `writing-mode="lr-tb"` and `"tb-rl"`.

- right aligns the right side of the string (the bottom of the string in case of vertical writing) to the tab stop position. Same as end above in case of `writing-mode="lr-tb"` and `"tb-rl"`.
- bei decimal, considered that "." is specified.
- `<string>` aligns the start of the string to the tab stop position as specified.

**Applies to:** `<afx:tab>`

**Values:** auto | start | center | end | left | right | decimal | `<string>`

**Initial:** auto

**Inherited:** no

#### afx:tab-stops

This property is used to specify both the tab stops and the alignment of the content at the tab stop positions of the block lines in blocks (`<fo:block>`). These specifications are inherited by any subordinate blocks! For each tab stop, the alignment at the tab stop is set first, then the tab stop position (tab width) itself. All values are separated by spaces. If the alignment value is missing, the alignment value of the preceding tab stop position is assumed. If the alignment value at the beginning of the line is missing, then the start value applies. For the available alignment values, see `afx:tab-align`.

The tab width is set either by a length value (`<length>`) or a number (`<number>`). The number value corresponds to the number of spaces (U-0020). The default is eight spaces (8).

The `eol` value is the tab stop position at the end of a line. If this value is missing, then the last defined tab width is repeated to the end of the line.

**Applies to:** practically useful in `<fo:block>`

**Values:** `[[<tab-align? [<length>|<number>]]* [<tab-align? eol]?]!`

**Initial:** 8

**Inherited:** yes

axf:tab-treatment

Specifies the method to treat the tab character (U+0009). The value `<number>` means the specified number of the white space characters (U+0020). You cannot specify a negative value. This white space is subject to processing of `white-space-treatment` and `white-space-collapse`, etc. The value `preserve` means treated as `<axf:tab>`.

**Applies to:** `<fo:block>`, `<fo:character>`

**Values:** `<number>` | `preserve`

**Initial:** 4

**Inherited:** yes

axf:tab-overlap-treatment

Specifies a behavior when tab alignment makes letters overlapped. The default value `auto` depends on the default value of the system. This is the value specified in `tab-overlap-treatment` in the Option Setting File. The value `ignore-tab` ignores the tab. The string will be shown just after the previous string. The value `next-tab` places the tab at the next tab stop position. Letters will not be overlapped when `axf:tab-align="start"` is specified.

**Applies to:** `<fo:block>`, `<fo:character>`

**Values:** `auto` | `ignore-tab` | `next-tab`

**Initial:** `auto`

**Inherited:** yes

axf:table-auto-layout-limit

Specifies the number of rows of `<fo:table>` to read ahead to determine the width of column when `table-layout="auto"` is specified.

**Applies to:** `<fo:table>`

**Values:** auto | `<number>`

**Initial:** auto

**Inherited:** yes

`axf:table-row-orphans`

Specifies the number of table-rows that must remain at the bottom of the page (column).

**Applies to:** `<fo:table-body>`

**Values:** `<integer>`

**Initial:** 1

**Inherited:** yes

`axf:table-row-widows`

Specifies the number of table-rows that must remain at the top of the page (column).

**Applies to:** `<fo:table-body>`

**Values:** `<integer>`

**Initial:** 1

**Inherited:** yes

`axf:table-summary`

Describes the table summary.

This is equivalent to `<table summary="<string">` in HTML. It doesn't affect the formatting result. It is outputted with Tagged PDF.

**Applies to:** `<fo:table>`

**Values:** `<string>`

**Initial:** empty

**Inherited:** no

### axf:text-align-first

Specifies the text alignment of the first line.

Specifies the alignment of the child of the first line area and the alignment of the line coming right after the line with U+000A at the end. Priority is given above [text-align-last](#).

Values have the following meanings:

- relative: Does nothing. axf:text-align-first is invalid.
- start
  - center
  - end
  - justify
  - inside
  - outside
  - left
- right: Same as [text-align](#) or [text-align-last](#).

**Applies to:** <fo:block>

**Values:** relative | start | center | end | justify | inside | outside | left | right

**Initial:** relative

**Inherited:** yes

### axf:text-align-string

Specifies the text alignment when [text-align](#)="<string>".

Although the specification of <string> to <fo:table-cell> aligns the character position of decimal point, etc., there is no definition for the alignment of the whole character string. At a default, AH XSL Formatter displayed it right aligned according to the illustration of [17.5.4 Horizontal alignment in a column](#). AH XSL Formatter extends the alignment and makes it possible to align left or align center.

Values have the following meanings:

- start
- center
- end
- inside
- outside
- left
- right: Same as [text-align](#) or [text-align-last](#).

**Applies to:** `<fo:table-cell>`

**Values:** start | center | end | inside | outside | left | right

**Initial:** end

**Inherited:** yes

`axf:text-autospace`

Specifies whether to add space surrounding ideographic glyphs or not. The initial value of whether space is added or not can be set by [text-autospace](#) in the Option Setting File. It can also be set in the Format Option Setting Dialog in the GUI.

Values have the following meanings:

- none: Space is not added.
- ideograph-numeric: Space is added between ideograph character and non-ideographic number character. Non-ideographic number character mentioned here indicates the character of Nd classified by Unicode and the non-full-width character.
- ideograph-alpha: Space is added between ideograph character and non-ideographic alphabet character. Non-ideographic alphabet character mentioned here indicates the character of Lu, Ll, Lt and Lm classified by Unicode.
- ideograph-parenthesis: Space is added between ideograph character and non-ideographic parenthesis character. However space is not

added between ideograph character and non-ideographic closing parenthesis or between non-ideographic opening parenthesis and ideograph character.

- auto: Dependent on the system setting. It's considered `axf:text-autospace="none"` or `axf:text-autospace="ideograph-numeric ideograph-alpha"` according to the setting.

**Applies to:** all block-level and inline-level formatting objects

**Values:** none | [ ideograph-numeric || ideograph-alpha || ideograph-parenthesis ] | auto

**Initial:** auto

**Inherited:** yes

`axf:text-autospace-width`

Specifies the width for `axf:text-autospace`.

Values have the following meanings:

- `<length>`: Specifies the amount of the space with an absolute value.
- `<percentage>`: It's a relative setting to the font size when actually applied.
- auto: Dependent on the system setting. This is the value specified by `text-autospace-width` in the Option Setting File.

**Applies to:** all block-level and inline-level formatting objects

**Values:** `<length>` | `<percentage>` | auto

**Initial:** auto

**Inherited:** yes

`axf:text-combine-horizontal`

Sets horizontal-in-vertical composition in vertical writing mode automatically.

CAUTION: Automatic horizontal-in-vertical composition is not recommended to use in any other way than

`axf:text-orientation="upright"`.

Automatic horizontal-in-vertical composition is invalid in the following cases. Emphasis marks in horizontal-in-vertical composition will be deleted:

- In horizontal writing mode (includes the case where the value for `axf:text-orientation` is sideways in horizontal-in-vertical composition)
- When languages other than CJK are specified
- Within ruby
- Character strings generated dynamically, such as `<fo:page-number>`.

Values have the following meanings:

- none: Does not set horizontal-in-vertical composition.
- all: The whole element which consists of only text is set to horizontal-in-vertical composition.
- digits: A sequence of consecutive numbers (0-9) that are less than or equal to the digit number specified by `<integer>` is set to horizontal-in-vertical composition.
- alpha: A sequence of consecutive alphabetic characters (A-Z, a-z) that are less than or equal to the digit number specified by `<integer>` is set to horizontal-in-vertical composition.
- alphanumeric: A sequence of consecutive alphanumeric characters (0-9, A-Z, a-z) that are less than or equal to the digit number specified by `<integer>` is set to horizontal-in-vertical composition.
- emoji: Makes the emoji horizontal-in-vertical composition.

For a detailed usage example, see `axf:text-combine-horizontal` in XSL/CSS Extensions in Features of the Online Manual.

**Applies to:** all block-level and inline-level formatting objects

**Values:** none | all | [`<integer>`] | alpha `<integer>` | alphanumeric `<integer>` | emoji]



**Initial:** none

**Inherited:** yes

axf:text-emphasis-style

Specifies the style of emphasis marks.

Values have the following meanings:

- none: No emphasis marks.
- filled: Specifies a character with color-fill.
- open: Specifies a character with an outline without color-fill.
- dot: Specifies a filled dot. filled dot is U+2022 •, open dot is U+25E6 ◦.
- circle: Specifies a circle. filled circle is U+25CF ●, open circle is U+25CB ○.
- double-circle: Specifies a double-circle. filled double-circle is U+25C9 ◎, open double-circle is U+25CE ◯.
- triangle: Specifies a triangle. filled triangle is U+25B2 ▲, open triangle is U+25B3 △.
- sesame: Specifies a sesame dot. filled sesame is U+FE45 ◌, open sesame is U+FE46 ◌.
- `<string>`: Specifies an arbitrary character string. When multiple characters are specified, overlapping of emphasis marks is not considered though everything is displayed.

When filled or open is not specified, it's considered filled. When filled or open is specified, it's considered circle in vertical writing mode.

**Applies to:** all elements

**Values:** none | [[filled | open] || [dot | circle | double-circle | triangle | sesame]] | `<string>`

**Initial:** none

**Inherited:** yes

#### axf:text-emphasis-position

Specifies on which side of base characters emphasis marks are put.

Values have the following meanings:

- before: Emphasis marks are put on the before side.
- after: Emphasis marks are put on the after side.

**Applies to:** all elements

**Values:** before | after

**Initial:** before

**Inherited:** yes

#### axf:text-emphasis-offset

Specifies the space between emphasis marks and the base characters.

When specified using `<number>`, the value is what is obtained by multiplying [axf:text-emphasis-font-size](#) by the specified `<number>`. When ruby and emphasis marks are put on the same side, it is adjusted to the larger one of the specified value and the ruby height.

**Applies to:** all elements

**Values:** `<number>` | `<length>` | `<percentage>`

**Initial:** 0pt

**Inherited:** yes

#### axf:text-emphasis-skip

Specifies the character to which emphasis marks are not applied.

Values have the following meanings:

- none: No character is excluded.
- spaces: White space characters are excluded.
- punctuation: Punctuation marks are excluded.
- symbols: Symbols are excluded.
- narrow: Non full width characters (half width characters, etc.) are excluded.

**Applies to:** all elements

**Values:** none | [spaces || punctuation || symbols || narrow]

**Initial:** spaces

**Inherited:** yes

axf:text-emphasis-font-family

Specifies the font family of emphasis marks. If nothing is specified, it's considered the same as [font-family](#).

**Applies to:** emphasis elements

**Values:** [[<family-name>](#) | [<generic-family>](#)]

**Initial:** empty string

**Inherited:** yes

axf:text-emphasis-font-size

Specifies the font size of emphasis marks. When specified using [<number>](#), the value is what is obtained by multiplying [font-size](#) by the specified [<number>](#).

**Applies to:** emphasis elements

**Values:** [<number>](#) | [<absolute-size>](#) | [<relative-size>](#) | [<length>](#) | [<percentage>](#)

**Initial:** 0.5

**Inherited:** yes

axf:text-emphasis-font-style

Specifies whether emphasis marks are made italic. If nothing is specified, it's considered the same as [font-style](#).

**Applies to:** emphasis elements

**Values:** normal | italic

**Initial:** empty

**Inherited:** yes

#### axf:text-emphasis-font-weight

Specifies the font weight of emphasis marks. If nothing is specified, it's considered the same as [font-weight](#).

**Applies to:** emphasis elements

**Values:** normal | bold | bolder | lighter | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000

**Initial:** empty

**Inherited:** yes

#### axf:text-emphasis-font-stretch

Specifies the font stretching of emphasis marks. If nothing is specified, it's considered the same as [font-stretch](#).

**Applies to:** emphasis elements

**Values:** normal | wider | narrower | ultra-condensed | extra-condensed | condensed | semi-condensed | semi-expanded | expanded | extra-expanded | ultra-expanded | [<percentage>](#) | [<number>](#)

**Initial:** empty

**Inherited:** yes

#### axf:text-emphasis-color

Specifies the color of emphasis marks. If nothing is specified, it's considered the same as [color](#).

**Applies to:** emphasis elements

**Values:** [<color>](#)

**Initial:** empty

**Inherited:** yes

### axf:text-indent-if-first-on-page

Specifies the [text-indent](#) of a block at the top of the page or the top of the column.

Values have the following meanings:

- [<length>](#)  
[<percentage>](#): When the block comes to the top of the page or column, if the first line is on that page or column, the value of this property substitutes for the value of [text-indent](#).
- auto: Does nothing.

**Applies to:** [<fo:block>](#), [<fo:block-container>](#)

**Values:** [<length>](#) | [<percentage>](#) | auto

**Initial:** auto

**Inherited:** yes

### axf:text-justify

Specifies how to justify text.

Values have the following meanings:

- auto: Uses the best text justification method for the script. For instance, in case of Japanese Kanji, Hiragana and Katakana, spaces between letters are expanded. In case of Arabic scripts, Kashida is used while spaces between words are expanded for the other scripts.
- inter-word: Justifies text by expanding the space between words.
- inter-character: Justifies text by expanding the space between letters.
- distribute: Changed to inter-character with CSST-Text 2017-08-22.

We also accept distribute for compatibility.

**CAUTION:** If inter-character is specified, kerning and ligature are limited.

**Applies to:** all block-level and inline-level formatting objects

**Values:** auto | inter-word | inter-character | distribute

**Initial:** auto

**Inherited:** yes

axf:text-justify-trim

Specifies the way to trim in text justification.

Trim the spaces between characters as specified so that text fits into a line. When `axf:punctuation-trim="all"` is specified, there may be no more space to trim.

Values have the following meanings:

- none: Do not trim Japanese text.
- punctuation: Trim text with parentheses, middle dots, and punctuations of full width in Japanese.
- punctuation-except-fullstop: Behaves as the same as the punctuation value except for the following two characters:
  - U+3002 IDEOGRAPHIC FULL STOP 。
  - U+FF0E FULLWIDTH FULL STOP .
- punctuation-except-middledot: Behaves as the same as the punctuation value except for the following middle dots:
  - U+30FB KATAKANA MIDDLE DOT ・
  - U+FF1A FULLWIDTH COLON :
  - U+FF1B FULLWIDTH SEMICOLON ;
- kana: Trim Hiragana and Katakana a bit.
- ideograph: Trim spaces between Kanji or Kana.
- inter-word: Trim spaces between Western words.
- auto: Dependent on the system setting. This is the value specified by `punctuation-trim` and `text-justify-mode` in the Option Setting File. However, when `axf:avoid-widow-words` is enabled, it is considered that `axf:text-justify-trim="ideograph inter-word"` is specified.

**Applies to:** all block-level and inline-level formatting objects

**Values:** none | [ punctuation || punctuation-except-fullstop || punctuation-except-middledot || [ kana | ideograph ] || inter-word ] | auto

**Initial:** auto

**Inherited:** yes

axf:text-kashida-space

Specifies the percentage of Kashida in Arabic justification.

The initial value of the percentage can be set by `text-kashida-space` in the Option Setting File.

Values have the following meanings:

- `<percentage>`: Indicates the percentage of white space and Kashida. If the value is 0%, Kashida is not inserted and only the white space expands as well as the normal justification. If the value is 100%, Kashida is inserted as much as possible. The value should be from 0% to 100%.
- Dependent on the system setting.

**Applies to:** all block-level and inline-level formatting objects

**Values:** `<percentage>` | auto

**Initial:** auto

**Inherited:** yes

axf:text-line-color

Specifies the color of underline, strikethrough, and overline.

**Applies to:** all elements with and generated content with textual content

**Values:** auto | `<color>`

**Initial:** the value of the 'color' property

**Inherited:** no

#### afx:text-line-style

Specifies the style of underline, strikethrough, and overline.  
none cannot be specified to `<border-style>`.

**Applies to:** all elements with and generated content with textual content

**Values:** `<border-style>`

**Initial:** solid

**Inherited:** no

#### afx:text-line-width

Specifies the width of underline, strikethrough, and overline.

**Applies to:** all elements with and generated content with textual content

**Values:** auto | `<border-width>`

**Initial:** auto

**Inherited:** no

#### afx:text-orientation

Specifies the orientation of text in vertical writing mode.

This property is not effective in horizontal writing mode. In addition, complicated scripts, such as Arabic or Thai, cannot be rendered upright.

Values have the following meanings:

- mixed: Rotates alphanumeric characters, etc. 90-degree clockwise.
- upright: Renders all the characters upright except for punctuation marks, such as parentheses.
- sideways-rl  
sideways: Rotates all the characters 90-degree clockwise. This has the same effect as setting some parts in horizontal layout in the vertical writing mode.



- none: Dependent on the system. Although the operation is close to mixed, which character is rotated is decided by considering the compatibility with the old version.
- auto: It is considered mixed when the value of `text-orientation-mode` is 7 in the Option Setting File, none when the value is less than or equal to 6.

See also Upright Rendering of Text in Vertical Writing Mode in Technical Notes in Technical of the Online Manual to learn more about the behavior of mixed and upright. It is always considered `axf:word-break="break-all"`, `hyphenate="false"` in upright character strings.

**Applies to:** all block-level and inline-level formatting objects

**Values:** mixed | upright | sideways-rl | sideways | none | auto

**Initial:** auto

**Inherited:** yes

#### `axf:text-overflow`

Specifies the display method at the end of the content when overflowing in the inline progression direction.

This feature is effective only when `overflow="hidden"` is specified.

It has no effect on the overflow in the block progression direction.

When overflowing with only the first one character (or an object such as the first image), an ellipsis (abbreviated character string) is not added and it is treated as clip.

If the first one character (or an object such as the first image) does not overflow, but if it overflows when an ellipsis (abbreviated character string) is attached, the ellipsis (abbreviated character string) is also displayed.

Values have the following meanings:

- clip: When overflowing in the inline progression direction, no processing is performed.

- **ellipsis**: When overflowing in the inline progression direction, narrow the display area by the extent that the ellipsis (U+2026) is entered, and then insert the ellipsis at the end.
- **<string>**: When overflowing in the inline progression direction, narrow the display area by the intent that the character string is entered, and then insert the specified character string at the end.

**Applies to:** block level elements

**Values:** clip | ellipsis | <string>

**Initial:** clip

**Inherited:** no

axf:text-replace

Replaces the character strings.

When it is simultaneously specified with [text-transform](#) or [axf:number-transform](#), axf:text-replace will be evaluated last.

Values have the following meanings:

- **none**: Does nothing.
- **<string> <string>**: The first pair of character strings is replaced by the latter character strings. You have to specify a character string by a pair. It is not replaced when character strings are odd pieces or the first character string is empty. White space characters will be replaced after being processed by [white-space-treatment](#), etc.

**Applies to:** all block-level and inline-level formatting objects

**Values:** none | [ <string> <string> ]+

**Initial:** none

**Inherited:** yes

axf:text-stroke

Specifies the stroke of the character.

This is a shorthand property for `axf:text-stroke-width` and `axf:text-stroke-color`.

CAUTION: This property is valid for GUI and PDF output, SVG output. Ignored on other outputs.

CAUTION: Contiguous character strings such as Arabic or Devanagari draw strokes at character boundaries.

**Applies to:** all block-level and inline-level formatting objects

**Values:** `<length> <color>?|<color>`

**Initial:** 0pt transparent

**Inherited:** yes

`axf:text-stroke-color`

Specifies the stroke color of the character. Strokes are not drawn when these are transparent.

CAUTION: This property is valid for GUI and PDF output, SVG output. Ignored on other outputs.

CAUTION: Contiguous character strings such as Arabic or Devanagari draw strokes at character boundaries.

**Applies to:** all block-level and inline-level formatting objects

**Values:** `<color>`

**Initial:** transparent

**Inherited:** yes

`axf:text-stroke-width`

Specifies the stroke width of the character. Strokes are not drawn when these are less than or equal to 0.

CAUTION: This property is valid for GUI and PDF output, SVG output. Ignored on other outputs.

CAUTION: Contiguous character strings such as Arabic or Devanagari draw strokes at character boundaries.

**Applies to:** all block-level and inline-level formatting objects

**Values:** <length>

**Initial:** 0pt

**Inherited:** yes

axf:text-treat-as

Specifies the character string treatable for trimming space between ideograph character and non-ideographic alphabet character and full width punctuation.

For more details see axf:text-treat-as in XSL/CSS Extensions in Features of the Online Manual.

**Applies to:** inline formatting objects

**Values:** <string> [both | start | end]?

**Initial:** empty string

**Inherited:** no

axf:text-underline-position

Specifies the position of underline.

Values have the following meanings:

- auto: The underline is placed on the automatically adjusted position. The specification of [axf:vertical-underline-side](#) in vertical writing mode is effective.
- before-edge: The underline is placed on the before-edge. When <percentage> or <length> is not specified, the upper end of the height of an underline is placed on the before-edge. When <percentage> or <length> is specified, the center of the height of an underline is placed on the before-edge.
- alphabetic: The underline is placed on the position of the baseline. When <percentage> or <length> is not specified, the upper end of the height of an underline is placed on the baseline. When <percentage>

or `<length>` is specified, the center of the height of an underline is placed on the baseline.

- `after-edge`: The underline is placed on the after-edge. When `<percentage>` or `<length>` is not specified, the upper end of the height of an underline is placed on the after-edge. When `<percentage>` or `<length>` is specified, the center of the height of an underline is placed on the after-edge.
- `<percentage>`  
`<length>`: The underline position is shifted by the specified amount. When the underline is placed on the right side by `axf:vertical-underline-side`, it is moved to the opposite direction of the left side.

**Applies to:** all elements with and generated content with textual content

**Values:** auto | [ [ before-edge | alphabetic | after-edge ] || [ `<percentage>` | `<length>` ] ]

**Initial:** auto

**Inherited:** yes

`axf:transform`

Specifies the block transformation.

**CAUTION:** The transformation of the region does not happen. Only the contents are transformed.

Values have the following meanings:

- `none`: Does not transform the block.
- Performs the specified transformation. The following transformations can be specified:
  - `matrix(<number>, <number>, <number>, <number>, <number>, <number>)`
  - `translate(<translation-value>[, <translation-value>])`
  - `translateX(<translation-value>)`

- `translateY(<translation-value>)`
- `scale(<number>[, <number>])`
- `scaleX(<number>)`
- `scaleY(<number>)`
- `rotate(<angle>)`
- `skew(<angle>[, <number>])`
- `skewX(<number>)`
- `skewY(<number>)`

**Applies to:** transformable objects

**Values:** none | <transform-function> +

**Initial:** none

**Inherited:** no

`axf:transform-origin`

Specifies the origin of the block transformation.

**Applies to:** transformable objects

**Values:** [ <percentage> | <length> | left | center | right | top | bottom]  
 | [ [ <percentage> | <length> | left | center | right ] &&  
 [ <percentage> | <length> | top | center | bottom ] ]

**Initial:** center center

**Inherited:** no

`axf:url-break`

Specifies how to perform the line breaking in a URL.

**Applies to:** all block-level and inline-level formatting objects

**Values:** normal | chicago

**Initial:** normal

**Inherited:** yes

Values have the following meanings:

- normal: Follows a normal line breaking rule

chicago: Breaks lines for substrings such as URLs in text, as in [The Chicago Manual of Style](#). That is, follows these rules:

- Disallows breaking after /.  
Allows breaking before a single / other than at the end of the URL. (Disallows breaking before //.)  
Other than these, follows a normal line breaking rule.

**CAUTION:** Whether a string is a URL does not determine whether it strictly follows the URL syntax. It is determined only by whether it starts with `http://`, `https://` or `file://`.

`axf:vertical-underline-side`

Specifies on which side of the text to put underline in vertical writing-mode.

This property is effective only when `axf:text-underline-position="auto"` is specified. The overline is placed on the opposite position of the underline.

The initial value of the underline position can be set by `vertical-underline-side` in the Option Setting File. It can also be set in the Format Option Setting Dialog in the GUI.

When `axf:vertical-underline-side="auto"` is specified and the initial value of the system is also auto, the underline is placed on the right side when the `language` property is Japanese (jpn) or Korean (kor). The underline is placed on the left side when the `language` property is other than Japanese (jpn) or Korean (kor). If there is no `language` properties specified, it depends on the Default CJK language setting (`default-CJK`).

**Applies to:** all block-level and inline-level formatting objects

**Values:** left | right | depend-on-language | auto

**Initial:** auto

**Inherited:** yes

`axf:word-break`

Specifies whether to enable line breaking even inside a word.

Values have the following meanings:

- `normal`: Follows a normal line breaking rule.
- `keep-all`: Does not break inside words. A word here indicates a character string which consists of the following category (General Category) of Unicode:
  - Letter
  - Mark
  - Number

Whether to break lines on a boundary with characters other than these follows the rule of the standard line break. Moreover, `hyphenate="true"` is disregarded.

- `break-all`: The line breaking is enabled between all the characters in the word. This is effective only with the following scripts:
  - Latn
  - Cysl
  - Grek
  - Zyyy

`axf:word-wrap="normal"` is disregarded.

- `keep-non-spaces`: Does not break between non-whitespace characters.

Within the word oriented upright by `axf:text-orientation="upright"`, it is always considered `axf:word-break="break-all"`.

**Applies to:** all block-level and inline-level formatting objects

**Values:** `normal` | `keep-all` | `break-all` | `keep-non-spaces`

**Initial:** `normal`

**Inherited:** `yes`



## axf:word-wrap

Specifies whether to break word forcibly when line break cannot be performed.

Values have the following meanings:

- normal: The line is not broken forcibly. The text will overflow across the region.
- break-word: The line is broken forcibly at an appropriate position.

**Applies to:** all block-level and inline-level formatting objects

**Values:** normal | break-word

**Initial:** break-word

**Inherited:** yes

## additive-symbols

Specifies the weighted counter symbol of a counter style.

**Applies to:** <axf:counter-style>

**Values:** [ <integer> && <symbol> ]#

**Initial:** N/A

**Inherited:** no

## code

This AHF-specific property is used to specify the punctuation character in the extension objects below.

**Applies to:** <axf:space-after-punctuation>,

<axf:space-before-punctuation>, <axf:space-between-digit-and-punctuation>,

<axf:space-between-punctuation-and-digit>

**Values:** <string>

**Initial:** empty string

**Inherited:** no

## fallback

Specifies the fallback counter style in case where the style could not be applied due to the style out of the range.

**Applies to:** <axf:counter-style>

**Values:** <counter-style-name>

**Initial:** decimal

**Inherited:** no

## name

Specifies the name of the counter style.

**Applies to:** <axf:counter-style>

**Values:** see the usage rules and the predefined counter styles in the AHF Online Manual

**Initial:** N/A

**Inherited:** no

## name

## value

In a <axf:document-info> object a number of characteristics of display, rendering and handling in the PDF viewer can be set for PDF output with the name and value properties.

With the property name one designates the characteristic, with value the characteristic value. The names are fixed, the characteristic value is characteristic-specific. To the names and characteristic values in detail see <axf:document-info>.

**Applies to:** <axf:document-info>

**Values:** see above

**Initial:** see above

**Inherited:** no

## negative

Specifies the prefix and the suffix for the negative value of a counter style.

**Applies to:** `<afx:counter-style>`

**Values:** `<symbol> <symbol>?`

**Initial:** `"."`

**Inherited:** no

## pad

Specifies the padding for a small digit of a counter style.

**Applies to:** `<afx:counter-style>`

**Values:** `<integer> && <symbol>`

**Initial:** `0 ''`

**Inherited:** no

## prefix

Specifies the prefix of a counter style.

**Applies to:** `<afx:counter-style>`

**Values:** `<symbol>`

**Initial:** `""`

**Inherited:** no

## range

Specifies the range to which the counter style is applied.

**Applies to:** `<afx:counter-style>`

**Values:** `[ [ <integer> | infinite ]{2} ]# | auto`

**Initial:** auto

**Inherited:** no

## space

This AHF-specific property is used for specifying the width of the space (spatium width) in the extension objects below.

To the values: Percentages refer to the font size of the environment. figure corresponds to the width of the character U+2007. punctuation corresponds to the width of the character U+2008. thin corresponds to the width of the character U+2009. hair corresponds to the width of the character U+200A.

**Applies to:** `<axf:space-after-punctuation>`,  
`<axf:space-before-punctuation>`, `<axf:space-between-digit-and-punctuation>`,  
`<axf:space-between-punctuation-and-digit>`

**Values:** `<number>` | `<length>` | `<percentage>` | figure | punctuation | thin | hair

**Initial:** none

**Inherited:** no

## suffix

Specifies the suffix of a counter style.

**Applies to:** `<axf:counter-style>`

**Values:** `<symbol>`

**Initial:** ", "

**Inherited:** no

## symbols

Specifies the counter symbol of a counter style.

**Applies to:** `<axf:counter-style>`

**Values:** `<symbol>+`

**Initial:** N/A

**Inherited:** no

system

Specifies the type of the counter system.

**Applies to:** `<axf:counter-style>`

**Values:** cyclic | numeric | alphabetic | symbolic | additive | [fixed `<integer>?`] | [ extends `<counter-style-name>` ]

**Initial:** "symbolic"

**Inherited:** no

## 2.4 AHF Extensions: Functions

`cmyk()`

The function `cmyk()` is equivalent to the function `rgb-icc(#CMYK,<C>,<M>,<Y>,<K>)` (see `rgb-icc()`).

`cmyka()`

The `cmyka()` function has 5 arguments: `cmyka(<C>,<M>,<Y>,<K>,<A>)` (see also `rgb-icc()`).

`hsl()`

`hsl()` is a function in CSS3 and specifies the hue saturation lightness (HSL). The 3 arguments to it are `hsl(<H>,<S>,<L>)`. `<H>` is a number without a unit of measurement. For `<S>` and `<L>` percentage values or the values from 0.0 to 1.0 are allowed.

`hsla()`

`hsla()` is a function in CSS3 and specifies the hue saturation lightness (HSL) with an additional alpha value. The 4 arguments for it are `hsl(<H>,<S>,<L>,<A>)`. `<H>` is a number without a unit of measurement.

For <S>, <L> and <A> percentage values or the values from 0.0 to 1.0 are allowed.

rgb-icc()

The extension of Antenna House concerns the color formats initiated with # for gray values, four-color printing (CMYK), and spot colors.

**Argument names** used in the following:

- <R>, <G>, <B> = %-values or integers from 0 to 255
- <C>, <M>, <Y>, <K> = %-values or numbers from 0.0 to 1.0
- <Scale> = %-value or 0.0 (black) to 1.0 (white)
- <Tint> = %-value or 0.0 (brightest value) to 1.0 (darkest value).

**Specify gray values.** The intensity of the gray value is set with the <Scale> argument:

```
rgb-icc(#Grayscale,<Scale>)
```

**Specification of four-color printing** according to the CMYK format (cyan, magenta, yellow, black). If the RGB specification is missing, the RGB values are derived from the CMYK values:

```
rgb-icc(<R>,<G>,<B>,#CMYK,<C>,<M>,<Y>,<K>)
```

```
rgb-icc(#CMYK,<C>,<M>,<Y>,<K>)
```

**Specification of spot colors.** The color name is specified as <Name>, e.g. as PANTONE 131 PC. The tint is entered as <Tint>. If <Tint> is not specified, the tint is assumed to be 1.0. Furthermore, RGB or CMYK must be specified. If the RGB specification is missing, the RGB values are derived from the CMYK values:

```
rgb-icc(<R>,<G>,<B>,#Separation,<Name>,<Tint>,<C>,<M>,<Y>,<K>)
```

```
rgb-icc(<R>,<G>,<B>,#Separation,<Name>,<Tint>)
```

```
rgb-icc(<R>,<G>,<B>,#Separation,<Name>)
```

```
rgb-icc(#Separation,<Name>,<Tint>,<C>,<M>,<Y>,<K>)
```

```
rgb-icc(#Separation,<Name>,<Tint>)
```

```
rgb-icc(#Separation,<Name>)
```

If the option "AH Formatter PANTONE®" is included in the license for the AH XSL Formatter, the PANTONE colors are automatically converted to RGB or CMYK values. Then you can write the function as follows:

```
rgb-icc(#Separation, 'PANTONE 131 PC')
```

## 3 Literature

### SHORT and TIGHT

The bibliography contains the bibliographic information of the sources used for this reference and the documents cited.

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