NSMutableParagraphStyle Class Reference

Cocoa > Text & Fonts

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NSMutableParagraphStyle Class Reference

Inherits from	NSParagraphStyle : NSObject
Conforms to	NSCoding (NSParagraphStyle) NSCopying (NSParagraphStyle) NSMutableCopying (NSParagraphStyle) NSObject (NSObject)
Framework	/System/Library/Frameworks/AppKit.framework
Availability	Available in Mac OS X v10.0 and later.
Companion guide	Rulers and Paragraph Styles
Declared in	NSParagraphStyle.h
Related sample code	FilterDemo IBFragmentView iSpend Quartz Composer WWDC 2005 TextEdit TextEditPlus

Overview

NSMutableParagraphStyle adds methods to its superclass, NSParagraphStyle, for changing the values of the subattributes in a paragraph style attribute. See the NSParagraphStyle and NSAttributedString specifications for more information.

Important: A paragraph style object should not be mutated after adding it to an attributed string; doing so can cause your program to crash.

Tasks

Setting Tab Stops

`- setTabStops:` (page 14)
Replaces the tab stops in the receiver with *tabStops*.

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- `addTabStop:` (page 7)
  Adds *tabStop* to the receiver.
- `removeTabStop:` (page 7)
  Removes the first text tab whose location and type are equal to those of *tabStop*.

Setting Other Style Information

- `setParagraphStyle:` (page 14)
  Replaces the subattributes of the receiver with those in *aStyle*.
- `setAlignment:` (page 8)
  Sets the alignment of the receiver to *alignment*.
- `setFirstLineHeadIndent:` (page 9)
  Sets the distance in points from the leading margin of a text container to the beginning of the paragraph's first line to *aFloat*.
- `setHeadIndent:` (page 10)
  Sets the distance in points from the leading margin of a text container to the beginning of lines other than the first to *aFloat*.
- `setTailIndent:` (page 15)
  Sets the distance in points from the margin of a text container to the end of lines to *aFloat*.
- `setLineBreakMode:` (page 11)
  Sets the mode used to break lines in a layout container to *mode*.
- `setMaximumLineHeight:` (page 12)
  Sets the maximum height that any line in the paragraph style will occupy, regardless of the font size or size of any attached graphic, to *aFloat*.
- `setMinimumLineHeight:` (page 13)
  Sets the minimum height that any line in the paragraph style will occupy, regardless of the font size or size of any attached graphic, to *aFloat*.
- `setLineSpacing:` (page 12)
  Sets the space in points added between lines within the paragraph to *aFloat*.
- `setParagraphSpacing:` (page 13)
  Sets the space added at the end of the paragraph to separate it from the following paragraph to *aFloat*.
- `setBaseWritingDirection:` (page 8)
  Sets the base writing direction for the receiver.
- `setLineHeightMultiple:` (page 11)
  Sets the line height multiple for the receiver.
- `setParagraphSpacingBefore:` (page 14)
  Sets the distance between the paragraph's top and the beginning of its text content
- `setDefaultTabInterval:` (page 9)
  Sets the default tab interval for the receiver.

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Setting Text Blocks and Lists

- `setTextBlocks:` (page 15)
  Sets the text blocks containing the paragraph, nested from outermost to innermost to *array*.
- `setTextLists:` (page 15)

Controlling Hyphenation and Truncation

- `setHyphenationFactor:` (page 10)
  Specifies the threshold for hyphenation.
- `setTighteningFactorForTruncation:` (page 16)
  Specifies the threshold for using tightening as an alternative to truncation.

Setting HTML Header Level

- `setHeaderLevel:` (page 10)
  Specifies whether the paragraph is to be treated as a header for purposes of HTML generation.

Instance Methods

addTabStop:

Adds *tabStop* to the receiver.

```
- (void)addTabStop:(NSTextTab *)tabStop
```

Availability
Available in Mac OS X v10.0 and later.

See Also
- `removeTabStop:` (page 7)
- `setTabStops:` (page 14)
- `tabStops` (NSParagraphStyle)

Related Sample Code
Quartz Composer WWDC 2005 TextEdit
TextEditPlus

Declared In
`NSParagraphStyle.h`

removeTabStop:

Removes the first text tab whose location and type are equal to those of *tabStop*.

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```
- (void)removeTabStop:(NSTextTab *)tabStop
```

Availability
Available in Mac OS X v10.0 and later.

See Also
- `addTabStop:` (page 7)
- `setTabStops:` (page 14)
- `tabStops` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

setAlignment:

Sets the alignment of the receiver to *`alignment`*.

```
- (void)setAlignment:(NSTextAlignment)alignment
```

Discussion
`alignment` may be one of:

```
NSLeftTextAlignment
NSRightTextAlignment
NSCenterTextAlignment
NSJustifiedTextAlignment
NSNaturalTextAlignment
```

Availability
Available in Mac OS X v10.0 and later.

See Also
- `alignment` (NSParagraphStyle)

Related Sample Code
FilterDemo
IBFragmentView
iSpend

Declared In
`NSParagraphStyle.h`

setBaseWritingDirection:

Sets the base writing direction for the receiver.

```
- (void)setBaseWritingDirection:(NSWritingDirection)writingDirection
```


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Discussion
It can be `NSWritingDirectionNaturalDirection`, `NSWritingDirectionLeftToRight`, or `NSWritingDirectionRightToLeft`. If you specify `NSWritingDirectionNaturalDirection`, the receiver resolves the writing direction to either `NSWritingDirectionLeftToRight` or `NSWritingDirectionRightToLeft`, depending on the direction for the user's language preference setting.

Availability
Available in Mac OS X v10.2 and later.

See Also
`+ defaultWritingDirectionForLanguage:` (NSParagraphStyle)
`- baseWritingDirection` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

setDefaultTabInterval:

Sets the default tab interval for the receiver.

```
- (void)setDefaultTabInterval:(CGFloat)aFloat
```

Discussion
Tabs after the last specified in `tabStops` are placed at integral multiples of this distance. This value must be nonnegative.

Availability
Available in Mac OS X v10.3 and later.

See Also
`- defaultTabInterval` (NSParagraphStyle)

Related Sample Code
Quartz Composer WWDC 2005 TextEdit
TextEditPlus

Declared In
`NSParagraphStyle.h`

setFirstLineHeadIndent:

Sets the distance in points from the leading margin of a text container to the beginning of the paragraph's first line to *aFloat*.

```
- (void)setFirstLineHeadIndent:(CGFloat)aFloat
```

Discussion
This value must be nonnegative.

Availability
Available in Mac OS X v10.0 and later.

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See Also
- `setHeadIndent:` (page 10)
- `setTailIndent:` (page 15)
- `firstLineHeadIndent` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

setHeaderLevel:

Specifies whether the paragraph is to be treated as a header for purposes of HTML generation.

```
- (void)setHeaderLevel:(NSInteger)level
```

Discussion
Should be set to 0 (the default value) if the paragraph is not a header, or from 1 through 6 if the paragraph is to be treated as a header.

Availability
Available in Mac OS X v10.4 and later.

See Also
- `headerLevel` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

setHeadIndent:

Sets the distance in points from the leading margin of a text container to the beginning of lines other than the first to *aFloat*.

```
- (void)setHeadIndent:(CGFloat)aFloat
```

Discussion
This value must be nonnegative.

Availability
Available in Mac OS X v10.0 and later.

See Also
- `setFirstLineHeadIndent:` (page 9)
- `setTailIndent:` (page 15)
- `headIndent` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

setHyphenationFactor:

Specifies the threshold for hyphenation.

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```
- (void)setHyphenationFactor:(float)aFactor
```

Discussion
Valid values lie between 0.0 and 1.0 inclusive. The default value is 0.0. Hyphenation is attempted when the ratio of the text width (as broken without hyphenation) to the width of the line fragment is less than the hyphenation factor. When the paragraph's hyphenation factor is 0.0, the layout manager's hyphenation factor is used instead. When both are 0.0, hyphenation is disabled.

Availability
Available in Mac OS X v10.4 and later.

See Also
- `hyphenationFactor` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

setLineBreakMode:

Sets the mode used to break lines in a layout container to *`mode`*.

```
- (void)setLineBreakMode:(NSLineBreakMode)mode
```

Discussion
The *`mode`* parameter may be one of:

```
NSLineBreakByWordWrapping
NSLineBreakByCharWrapping
NSLineBreakByClipping
NSLineBreakByTruncatingHead
NSLineBreakByTruncatingTail
NSLineBreakByTruncatingMiddle
```

See the description of `lineBreakMode` in the NSParagraphStyle class specification for descriptions of these values.

Availability
Available in Mac OS X v10.0 and later.

Related Sample Code
IBFragmentView

Declared In
`NSParagraphStyle.h`

setLineHeightMultiple:

Sets the line height multiple for the receiver.

```
- (void)setLineHeightMultiple:(CGFloat)aFloat
```


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Discussion
The natural line height of the receiver is multiplied by this factor before being constrained by minimum and maximum line height. This value must be nonnegative.

Availability
Available in Mac OS X v10.3 and later.

See Also
- `lineHeightMultiple` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

setLineSpacing:

Sets the space in points added between lines within the paragraph to *aFloat*.

```
- (void)setLineSpacing:(CGFloat)aFloat
```

Discussion
This value must be nonnegative.

Availability
Available in Mac OS X v10.0 and later.

See Also
- `setMaximumLineHeight:` (page 12)
- `setMinimumLineHeight:` (page 13)
- `setParagraphSpacing:` (page 13)
- `lineSpacing` (NSParagraphStyle)

Related Sample Code
TipWrapper

Declared In
`NSParagraphStyle.h`

setMaximumLineHeight:

Sets the maximum height that any line in the paragraph style will occupy, regardless of the font size or size of any attached graphic, to *aFloat*.

```
- (void)setMaximumLineHeight:(CGFloat)aFloat
```

Discussion
Glyphs and graphics exceeding this height will overlap neighboring lines; however, a maximum height of 0 implies no line height limit. This value must be nonnegative.

Although this limit applies to the line itself, line spacing adds extra space between adjacent lines.

Availability
Available in Mac OS X v10.0 and later.

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See Also
- `setMinimumLineHeight:` (page 13)
- `setLineSpacing:` (page 12)
- `maximumLineHeight` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

setMinimumLineHeight:

Sets the minimum height that any line in the paragraph style will occupy, regardless of the font size or size of any attached graphic, to *aFloat*.

```
- (void)setMinimumLineHeight:(CGFloat)aFloat
```

Discussion
This value must be nonnegative.

Availability
Available in Mac OS X v10.0 and later.

See Also
- `setMaximumLineHeight:` (page 12)
- `setLineSpacing:` (page 12)
- `minimumLineHeight` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

setParagraphSpacing:

Sets the space added at the end of the paragraph to separate it from the following paragraph to *aFloat*.

```
- (void)setParagraphSpacing:(CGFloat)aFloat
```

Discussion
This value must be nonnegative.

Availability
Available in Mac OS X v10.0 and later.

See Also
- `setLineSpacing:` (page 12)
- `setParagraphSpacingBefore:` (page 14)
- `paragraphSpacing` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

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setParagraphSpacingBefore:

Sets the distance between the paragraph's top and the beginning of its text content

```
- (void)setParagraphSpacingBefore:(CGFloat)aFloat
```

Discussion
. This value must be nonnegative.

Availability
Available in Mac OS X v10.3 and later.

See Also
- `setParagraphSpacing:` (page 13)
- `paragraphSpacingBefore` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

setParagraphStyle:

Replaces the subattributes of the receiver with those in *aStyle*.

```
- (void)setParagraphStyle:(NSParagraphStyle *)aStyle
```

Availability
Available in Mac OS X v10.0 and later.

Related Sample Code
FilterDemo

Declared In
`NSParagraphStyle.h`

setTabStops:

Replaces the tab stops in the receiver with *tabStops*.

```
- (void)setTabStops:(NSArray *)tabStops
```

Availability
Available in Mac OS X v10.0 and later.

See Also
- `addTabStop:` (page 7)
- `removeTabStop:` (page 7)
- `tabStops` (NSParagraphStyle)

Related Sample Code
Quartz Composer WWDC 2005 TextEdit
TextEditPlus

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Declared In
NSParagraphStyle.h

setTailIndent:

Sets the distance in points from the margin of a text container to the end of lines to *aFloat*.

```
- (void)setTailIndent:(CGFloat)aFloat
```

Discussion
If positive, this is the distance from the leading margin (for example, the left margin in left-to-right text). That is, it's the absolute line width. If 0 or negative, it's the distance from the trailing margin—the value is added to the line width.

For example, to create a paragraph style that fits exactly in a 2-inch wide container, set its head indent to 0.0 and its tail indent to 0.0. To create a paragraph style with quarter-inch margins, set its head indent to 0.25 and its tail indent to –0.25.

Availability
Available in Mac OS X v10.0 and later.

See Also
- `setHeadIndent:` (page 10)
- `setFirstLineHeadIndent:` (page 9)
- `tailIndent` (NSParagraphStyle)

Declared In
NSParagraphStyle.h

setTextBlocks:

Sets the text blocks containing the paragraph, nested from outermost to innermost to *array*.

```
- (void)setTextBlocks:(NSArray *)array
```

Availability
Available in Mac OS X v10.4 and later.

See Also
- `textBlocks` (NSParagraphStyle)

Related Sample Code
iSpend

Declared In
NSParagraphStyle.h

setTextLists:

```
- (void)setTextLists:(NSArray *)array
```


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Discussion
Sets the text lists containing the paragraph, nested from outermost to innermost, to *array*.

Availability
Available in Mac OS X v10.4 and later.

See Also
- `textLists` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

setTighteningFactorForTruncation:

Specifies the threshold for using tightening as an alternative to truncation.

```
- (void)setTighteningFactorForTruncation:(float)aFactor
```

Discussion
When the line break mode specifies truncation, the text system attempts to tighten intercharacter spacing as an alternative to truncation, provided that the ratio of the text width to the line fragment width does not exceed 1.0 + the value returned by `tighteningFactorForTruncation`. Otherwise the text is truncated at a location determined by the line break mode. The default value is 0.05. This method accepts positive and negative values. Values less than or equal to 0.0 result in not tightening.

Availability
Available in Mac OS X v10.4 and later.

See Also
- `tighteningFactorForTruncation` (NSParagraphStyle)

Declared In
`NSParagraphStyle.h`

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Document Revision History

This table describes the changes to *NSMutableParagraphStyle Class Reference*.

Date	Notes
2008-10-15	Removed erroneous statement that 0 is not accepted by setTighteningFactorForTruncation: method.
2006-05-23	First publication of this content as a separate document.

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