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# NSGlyphGenerator Class Reference

[Cocoa](#) > [Text & Fonts](#)



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# NSGlyphGenerator Class Reference

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<b>Inherits from</b>	NSObject
<b>Conforms to</b>	NSObject (NSObject)
<b>Framework</b>	/System/Library/Frameworks/AppKit.framework
<b>Availability</b>	Available in Mac OS X v10.3 and later.
<b>Declared in</b>	NSGlyphGenerator.h
<b>Companion guides</b>	Text System Overview Text Layout Programming Guide for Cocoa

## Overview

An `NSGlyphGenerator` object performs the initial, nominal glyph generation phase in the layout process.

The nominal glyph generation pass essentially generates one glyph per character; the typesetter may later make substitutions in the glyph stream, for example, changing an acute accent glyph followed by an “e” glyph into a single acute-accented “é” glyph.

`NSGlyphGenerator` communicates via the `NSGlyphStorage` protocol. An example of a class conforming to the protocol is `NSLayoutManager`.

## Tasks

### Obtaining a Glyph Generator

+ [sharedGlyphGenerator](#) (page 6)  
Returns a shared instance of `NSGlyphGenerator`.

### Generating Glyphs

- [generateGlyphsForGlyphStorage:desiredNumberOfCharacters:glyphIndex:characterIndex:](#) (page 6)  
Generates glyphs for the specified glyph storage object (`NSLayoutManager` by default).

## Class Methods

### sharedGlyphGenerator

Returns a shared instance of `NSGlyphGenerator`.

```
+ (id)sharedGlyphGenerator
```

#### Availability

Available in Mac OS X v10.3 and later.

#### Declared In

`NSGlyphGenerator.h`

## Instance Methods

### generateGlyphsForGlyphStorage:desiredNumberOfCharacters:glyphIndex:characterIndex:

Generates glyphs for the specified glyph storage object (`NSLayoutManager` by default).

```
- (void)generateGlyphsForGlyphStorage:(id < NSGlyphStorage >)glyphStorage
    desiredNumberOfCharacters:(NSUInteger)nChars glyphIndex:(NSUInteger *)glyphIndex
    characterIndex:(NSUInteger *)charIndex
```

#### Discussion

Generates glyphs for the glyph storage object specified by *glyphStorage*, beginning with the character at *charIndex* and continuing for *nChars* characters. The *glyphIndex* specifies the index of the first glyph generated.

#### Availability

Available in Mac OS X v10.3 and later.

#### Declared In

`NSGlyphGenerator.h`

# Document Revision History

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

Date	Notes
2006-05-23	First publication of this content as a separate document.

**REVISION HISTORY**

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