NSFontDescriptor Class Reference

Cocoa > Objective-C Language

2008-03-11

Apple Inc.
1 Infinite Loop
Cupertino, CA 95014
408-996-1010

Simultaneously published in the United States and Canada.

Contents

NSFontDescriptor Class Reference

Inherits from	NSObject
Conforms to	NSCoding NSCopying NSObject (NSObject)
Framework	/System/Library/Frameworks/AppKit.framework
Availability	Available in Mac OS X v10.3 and later.
Companion guide	Font Handling
Declared in	NSFontDescriptor.h

Overview

`NSFontDescriptor` objects provide a mechanism to describe a font with a dictionary of attributes. This font descriptor can be used later to create or modify an `NSFont` object. Mac OS X v10.4 and later provides a font matching capability, so that you can partially describe a font by creating a font descriptor with, for example, just a family name. You can then find all the available fonts on the system with a matching family name using `matchingFontDescriptorsWithMandatoryKeys:` (page 12).

There are several ways to create a new `NSFontDescriptor` object. You can use `alloc` and `initWithFontAttributes:` (page 11), `fontDescriptorWithFontAttributes:` (page 7), `fontDescriptorWithName:matrix:` (page 7), or `fontDescriptorWithName:size:` (page 8). to create a font descriptor based on either your custom attributes dictionary or on a specific font's name and size. Alternatively you can use one of the `fontDescriptor...` instance methods (such as `fontDescriptorWithFace:` (page 9)) to create a modified version of an existing descriptor. The latter methods are useful if you have an existing descriptor and simply want to change one aspect.

All attributes in the attributes dictionary are optional.

Adopted Protocols

NSCoding

- `encodeWithCoder:`
- `initWithCoder:`

NSCopying

- `copyWithZone:`

Tasks

Creating a Font Descriptor

`+ fontDescriptorWithFontAttributes:` (page 7)
Returns a font descriptor with a dictionary of attributes.

`+ fontDescriptorWithName:matrix:` (page 7)
Returns a font descriptor with the `NSFontNameAttribute` and `NSFontMatrixAttribute` dictionary attributes set to the given values.

`+ fontDescriptorWithName:size:` (page 8)
Returns a font descriptor with the `NSFontNameAttribute` and `NSFontSizeAttribute` dictionary attributes set to the given values.

`- fontDescriptorByAddingAttributes:` (page 9)
Returns a new font descriptor that is the same as the receiver but with the specified attributes taking precedence over the existing ones.

`- fontDescriptorWithFace:` (page 9)
Returns a new font descriptor that is the same as the receiver but with the specified face.

`- fontDescriptorWithFamily:` (page 10)
Returns a new font descriptor whose attributes are the same as the receiver but from the specified family.

`- fontDescriptorWithMatrix:` (page 10)
Returns a new font descriptor that is the same as the receiver but with the specified matrix.

`- fontDescriptorWithSize:` (page 10)
Returns a new font descriptor that is the same as the receiver but with the specified point size.

`- fontDescriptorWithSymbolicTraits:` (page 11)
Returns a new font descriptor that is the same as the receiver but with the specified symbolic traits taking precedence over the existing ones.

Initializing a Font Descriptor

`- initWithFontAttributes:` (page 11)
Initializes and returns a new font descriptor with the specified attributes.

Finding Fonts

`- matchingFontDescriptorsWithMandatoryKeys:` (page 12)
Returns all the fonts available on the system whose specified attributes match those of the receiver.

`- matchingFontDescriptorWithMandatoryKeys:` (page 12)
Returns a normalized font descriptor whose specified attributes match those of the receiver.

Querying a Font Descriptor

- `fontAttributes` (page 8)
  Returns the receiver's dictionary of attributes.
- `matrix` (page 13)
  Returns the current transform matrix of the receiver.
- `objectForKey:` (page 13)
  Returns the font attribute specified by the given key.
- `pointSize` (page 13)
  Returns the point size of the receiver.
- `postscriptName` (page 14)
  Returns the PostScript name of the receiver.
- `symbolicTraits` (page 14)
  Returns a bit mask that describes the traits of the receiver.

Class Methods

fontDescriptorWithFontAttributes:

Returns a font descriptor with a dictionary of attributes.

```
+ (NSFontDescriptor *)fontDescriptorWithFontAttributes:(NSDictionary *)attributes
```

Parameters

attributes
  The attributes for the font descriptor. If `nil`, the font descriptor's dictionary will be empty.

Return Value
The new font descriptor.

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

See Also
`+ fontDescriptorWithName:matrix:` (page 7)
`+ fontDescriptorWithName:matrix:` (page 7)

Declared In
`NSFontDescriptor.h`

fontDescriptorWithName:matrix:

Returns a font descriptor with the `NSFontNameAttribute` and `NSFontMatrixAttribute` dictionary attributes set to the given values.

```
+ (NSFontDescriptor *)fontDescriptorWithName:(NSString *)fontName
    matrix:(NSAffineTransform *)matrix
```

Parameters

fontName

The value for `NSFontNameAttribute`.

matrix

The value for `NSFontMatrixAttribute`.

Return Value
The new font descriptor.

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

See Also
`+ fontDescriptorWithFontAttributes:` (page 7)
`+ fontDescriptorWithName:size:` (page 8)

Declared In
`NSFontDescriptor.h`

fontDescriptorWithName:size:

Returns a font descriptor with the `NSFontNameAttribute` and `NSFontSizeAttribute` dictionary attributes set to the given values.

```
+ (NSFontDescriptor *)fontDescriptorWithName:(NSString *)fontName size:(CGFloat)size
```

Parameters

fontName

The value for `NSFontNameAttribute`.

size

The value for `NSFontSizeAttribute`.

Return Value
The new font descriptor.

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

See Also
`+ fontDescriptorWithFontAttributes:` (page 7)
`+ fontDescriptorWithName:matrix:` (page 7)

Declared In
`NSFontDescriptor.h`

Instance Methods

fontAttributes

Returns the receiver's dictionary of attributes.

```
- (NSDictionary *)fontAttributes
```

Return Value
The attribute dictionary.

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

Declared In
NSFontDescriptor.h

fontDescriptorByAddingAttributes:

Returns a new font descriptor that is the same as the receiver but with the specified attributes taking precedence over the existing ones.

```
- (NSFontDescriptor *)fontDescriptorByAddingAttributes:(NSDictionary *)attributes
```

Parameters
attributes
The new attributes.

Return Value
The new font descriptor.

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

See Also
+ fontDescriptorWithFontAttributes: (page 7)

Declared In
NSFontDescriptor.h

fontDescriptorWithFace:

Returns a new font descriptor that is the same as the receiver but with the specified face.

```
- (NSFontDescriptor *)fontDescriptorWithFace:(NSString *)newFace
```

Parameters
newFace
The new font face.

Return Value
The new font descriptor.

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

See Also
+ fontDescriptorWithFontAttributes: (page 7)

Declared In
NSFontDescriptor.h

fontDescriptorWithFamily:

Returns a new font descriptor whose attributes are the same as the receiver but from the specified family.

```
- (NSFontDescriptor *)fontDescriptorWithFamily:(NSString *)newFamily
```

Parameters

newFamily
The new font family.

Return Value
The new font descriptor.

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

See Also
+ fontDescriptorWithFontAttributes: (page 7)

Declared In
NSFontDescriptor.h

fontDescriptorWithMatrix:

Returns a new font descriptor that is the same as the receiver but with the specified matrix.

```
- (NSFontDescriptor *)fontDescriptorWithMatrix:(NSAffineTransform *)matrix
```

Parameters

matrix
The new font matrix.

Return Value
The new font descriptor.

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

See Also
+ fontDescriptorWithFontAttributes: (page 7)

Declared In
NSFontDescriptor.h

fontDescriptorWithSize:

Returns a new font descriptor that is the same as the receiver but with the specified point size.

```
- (NSFontDescriptor *)fontDescriptorWithSize:(CGFloat)newPointSize
```

Parameters

newPointSize

The new point size.

Return Value

The new font descriptor.

Availability

Available in Mac OS X v10.4 and later.

See Also

+ fontDescriptorWithFontAttributes: (page 7)

Declared In

NSFontDescriptor.h

fontDescriptorWithSymbolicTraits:

Returns a new font descriptor that is the same as the receiver but with the specified symbolic traits taking precedence over the existing ones.

```
- (NSFontDescriptor
    *)fontDescriptorWithSymbolicTraits:(NSFontSymbolicTraits)symbolicTraits
```

Parameters

symbolicTraits

The new symbolic traits.

Return Value

The new font descriptor.

Availability

Available in Mac OS X v10.4 and later.

See Also

+ fontDescriptorWithFontAttributes: (page 7)

Declared In

NSFontDescriptor.h

initWithFontAttributes:

Initializes and returns a new font descriptor with the specified attributes.

```
- (id)initWithFontAttributes:(NSDictionary *)attributes
```

Parameters

attributes

The attributes for the new font descriptor. If nil, the font descriptor's attribute dictionary will be empty.

Return Value

The new font descriptor.

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

See Also
`+ fontDescriptorWithFontAttributes:` (page 7)

Declared In
`NSFontDescriptor.h`

matchingFontDescriptorsWithMandatoryKeys:

Returns all the fonts available on the system whose specified attributes match those of the receiver.

```
- (NSArray *)matchingFontDescriptorsWithMandatoryKeys:(NSSet *)mandatoryKeys
```

Parameters

mandatoryKeys
Keys that must be identical to be matched. Can be `nil`.

Return Value
The matching font descriptors.

Discussion
For example, suppose there are two versions of a given font installed that differ in the number of glyphs covered (the new version has more glyphs). A font descriptor that specifies a font name and character set by default matches both versions, since the character set attribute is not usually used for matching. If you specify that font name and character set keys are mandatory, the returned array contains only the font that matches both keys.

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

Declared In
`NSFontDescriptor.h`

matchingFontDescriptorWithMandatoryKeys:

Returns a normalized font descriptor whose specified attributes match those of the receiver.

```
- (NSFontDescriptor *)matchingFontDescriptorWithMandatoryKeys:(NSSet *)mandatoryKeys
```

Parameters

mandatoryKeys
Keys that must be identical to be matched. Can be `nil`.

Return Value
The matching font descriptor.

Discussion
The returned font descriptor is the first element returned from `matchingFontDescriptorsWithMandatoryKeys:` (page 12).

Availability
Available in Mac OS X v10.5 and later.

Declared In
NSFontDescriptor.h

matrix

Returns the current transform matrix of the receiver.

```
- (NSAffineTransform *)matrix
```

Return Value
The transform matrix.

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

See Also
- pointSize (page 13)

Declared In
NSFontDescriptor.h

objectForKey:

Returns the font attribute specified by the given key.

```
- (id)objectForKey:(NSString *)anAttribute
```

Parameters
anAttribute
The font attribute key.

Return Value
The font attribute corresponding to *anAttribute*. For valid values of *anAttribute*, see "Font attributes" (page 15).

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

See Also
+ fontDescriptorWithFontAttributes: (page 7)
- fontAttributes (page 8)
- symbolicTraits (page 14)

Declared In
NSFontDescriptor.h

pointSize

Returns the point size of the receiver.

```
- (CGFloat)pointSize
```

Return Value
The receiver's point size.

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

See Also
- `fontAttributes` (page 8)
- `matrix` (page 13)

Declared In
`NSFontDescriptor.h`

postscriptName

Returns the PostScript name of the receiver.

```
- (NSString *)postscriptName
```

Return Value
The receiver's Postscript name.

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

See Also
- `fontAttributes` (page 8)
- `symbolicTraits` (page 14)

Declared In
`NSFontDescriptor.h`

symbolicTraits

Returns a bit mask that describes the traits of the receiver.

```
- (NSFontSymbolicTraits)symbolicTraits
```

Return Value
The receiver's font traits.

Discussion
The traits describe the font's characteristics—see `NSFontSymbolicTraits` (page 19).

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

See Also
- `fontAttributes` (page 8)
- `postscriptName` (page 14)

Declared In
`NSFontDescriptor.h`

Constants

Font Attributes

These font attributes are defined by `NSFontDescriptor`.

```
NSString *NSFontFamilyAttribute;
NSString *NSFontNameAttribute;
NSString *NSFontFaceAttribute;
NSString *NSFontSizeAttribute;
NSString *NSFontVisibleNameAttribute;
NSString *NSFontColorAttribute;
NSString *NSFontMatrixAttribute;
NSString *NSFontVariationAttribute;
NSString *NSFontCharacterSetAttribute;
NSString *NSFontCascadeListAttribute;
NSString *NSFontTraitsAttribute;
NSString *NSFontFixedAdvanceAttribute;
NSString *NSFontFeatureSettingsAttribute
```

Constants

`NSFontFamilyAttribute`

An optional `NSString` object that specifies the font family.

Available in Mac OS X v10.3 and later.

Declared in `NSFontDescriptor.h`.

`NSFontNameAttribute`

An optional `NSString` object that specifies the font name.

Available in Mac OS X v10.3 and later.

Declared in `NSFontDescriptor.h`.

`NSFontFaceAttribute`

An optional `NSString` object that specifies the font face.

Available in Mac OS X v10.3 and later.

Declared in `NSFontDescriptor.h`.

`NSFontSizeAttribute`

An optional `NSString` object, containing a float value, that specifies the font size.

Available in Mac OS X v10.3 and later.

Declared in `NSFontDescriptor.h`.

`NSFontVisibleNameAttribute`

An optional `NSString` object that specifies the font's visible name.

Available in Mac OS X v10.3 and later.

Declared in `NSFontDescriptor.h`.

`NSFontColorAttribute`

An optional `NSData` object that specifies the font color. (**Deprecated.** Use `NSForegroundColorAttributeName` instead.)

Available in Mac OS X v10.3 and later.

Deprecated in Mac OS X v10.4.

Declared in `NSFontDescriptor.h`.

`NSFontMatrixAttribute`

An `NSAffineTransform` instance that specifies the font's transformation matrix.

The default value is the identity matrix.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontVariationAttribute`

An `NSDictionary` instance that describes the font's variation axis.

The default value is supplied by the font. See "Font variation axis dictionary keys" (page 18) for dictionary keys.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontCharacterSetAttribute`

An `NSCharacterSet` instance that represents the set of Unicode characters covered by the font.

The default value is supplied by the font.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontCascadeListAttribute`

An `NSArray` instance—each member of the array is a sub-descriptor.

The default value is the system default cascading list for user's locale.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontTraitsAttribute`

An `NSDictionary` instance instance fully describing font traits.

The default value is supplied by the font. See "Font traits dictionary keys" (page 17) for dictionary keys.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontFixedAdvanceAttribute`

An `NSNumber` instance containing a float value that overrides the glyph advancement specified by the font.

The default value is `0.0`.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontFeatureSettingsAttribute`

An array of dictionaries representing non-default font feature settings.

Each dictionary contains `NSFontFeatureTypeIdentifierKey` (page 19) and `NSFontFeatureSelectorIdentifierKey` (page 19).

Available in Mac OS X v10.5 and later.

Declared in `NSFontDescriptor.h`.

Discussion
You can retrieve the values for these attributes using `objectForKey:` (page 13).

Declared In
`NSFontDescriptor.h`

Font Traits Dictionary Keys

The following constants can be used as keys to retrieve information about a font descriptor from its trait dictionary.

```
NSString *NSFontSymbolicTrait;
NSString *NSFontWeightTrait;
NSString *NSFontWidthTrait;
NSString *NSFontSlantTrait;
```

Constants
`NSFontSymbolicTrait`

The symbolic traits value as an `NSNumber` object.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontWeightTrait`

The normalized weight value as an `NSNumber` object.

The valid value range is from `-1.0` to `1.0`. The value of `0.0` corresponds to the regular or medium font weight.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontWidthTrait`

The relative inter-glyph spacing value as an `NSNumber` object.

The valid value range is from `-1.0` to `1.0`. The value of `0.0` corresponds to the regular glyph spacing.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontSlantTrait`

The relative slant angle value as an `NSNumber` object.

The valid value range is from `-1.0` to `1.0`. The value of `0.0` corresponds to `0` degree clockwise rotation from the vertical and `1.0` corresponds to `30` degrees clockwise rotation.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

Discussion
These keys are used with `NSFontTraitsAttribute` (page 16).

Declared In
NSFontDescriptor.h

Font Variation Axis Dictionary Keys

The following constants can be used as keys to retrieve information about a font descriptor from its variation axis dictionary.

```
NSString *NSFontVariationAxisIdentifierKey;
NSString *NSFontVariationAxisMinimumValueKey;
NSString *NSFontVariationAxisMaximumValueKey;
NSString *NSFontVariationAxisDefaultValueKey;
NSString *NSFontVariationAxisNameKey;
```

Constants

`NSFontVariationAxisIdentifierKey`
The axis identifier value as an `NSNumber` object.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontVariationAxisMinimumValueKey`
The minimum axis value as an `NSNumber` object.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontVariationAxisMaximumValueKey`
The maximum axis value as an `NSNumber` object.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontVariationAxisDefaultValueKey`
The default axis value as an `NSNumber` object.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontVariationAxisNameKey`
The localized variation axis name.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

Discussion
These keys are used with `NSFontVariationAttribute` (page 16).

Declared In
NSFontDescriptor.h

Font Feature Keys

The following constants can be used as keys to retrieve information about a font descriptor from its feature dictionary.

```
NSString *NSFontFeatureTypeIdentifierKey;
NSString *NSFontFeatureSelectorIdentifierKey;
```

Constants

`NSFontFeatureTypeIdentifierKey`

An `NSNumber` object specifying a font feature type such as ligature, character shape, and so on. See "Font Features" in *ATSUI Programming Guide* for predefined feature types.

Available in Mac OS X v10.5 and later.

Declared in `NSFontDescriptor.h`.

`NSFontFeatureSelectorIdentifierKey`

An `NSNumber` object specifying a font feature selector such as common ligature off, traditional character shape, and so on. See "Font Features" in *ATSUI Programming Guide* for predefined feature selectors.

Available in Mac OS X v10.5 and later.

Declared in `NSFontDescriptor.h`.

Discussion

These keys are used with `NSFontFeatureSettingsAttribute` (page 17).

Declared In

`NSFontDescriptor.h`

NSFontSymbolicTraits

`NSFontSymbolicTraits` symbolically describes stylistic aspects of a font.

```
typedef uint32_t NSFontSymbolicTraits;
```

Discussion

The upper 16 bits is used to describe appearance of the font (see `NSFontFamilyClass` (page 19)) whereas the lower 16 bits is used for typeface information (see `Typeface information` (page 21)). The font appearance information represented by the upper 16 bits can be used for stylistic font matching. The symbolic traits supersede the existing `NSFontTraitMask` type used by `NSFontManager`. The corresponding values are kept compatible between `NSFontTraitMask` and `NSFontSymbolicTraits`.

Availability

Available in Mac OS X v10.4 and later.

Declared In

`NSFontDescriptor.h`

NSFontFamilyClass

These constants classify certain stylistic qualities of the font. These values correspond closely to the font class values in the OpenType OS/2 table. The class values are bundled in the upper four bits of the `NSFontSymbolicTraits` and can be accessed via `NSFontFamilyClassMask`. For more information about the specific meaning of each identifier, refer to the OpenType specification.

```
enum {
    NSFontUnknownClass = 0 << 28,
    NSFontOldStyleSerifsClass = 1 << 28,
    NSFontTransitionalSerifsClass = 2 << 28,
    NSFontModernSerifsClass = 3 << 28,
    NSFontClarendonSerifsClass = 4 << 28,
    NSFontSlabSerifsClass = 5 << 28,
    NSFontFreeformSerifsClass = 7 << 28,
    NSFontSansSerifClass = 8 << 28,
    NSFontOrnamentalsClass = 9 << 28,
    NSFontScriptsClass = 10 << 28,
    NSFontSymbolicClass = 12 << 28
};
typedef uint32_t NSFontFamilyClass;
```

Constants

`NSFontUnknownClass`

The font has no design classification.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontOldStyleSerifsClass`

The font's style is based on the Latin printing style of the 15th to 17th century.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontTransitionalSerifsClass`

The font's style is based on the Latin printing style of the 18th to 19th century.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontModernSerifsClass`

The font's style is based on the Latin printing style of the 20th century.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontClarendonSerifsClass`

The font's style is a variation of the Oldstyle Serifs and the Transitional Serifs.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontSlabSerifsClass`

The font's style is characterized by serifs with a square transition between the strokes and the serifs (no brackets).

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontFreeformSerifsClass`

The font's style includes serifs, but it expresses a design freedom that does not generally fit within the other serif design classifications.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontSansSerifClass`
: The font's style includes most basic letter forms (excluding Scripts and Ornamentals) that do not have serifs on the strokes.

  Available in Mac OS X v10.4 and later.

  Declared in `NSFontDescriptor.h`.

`NSFontOrnamentalsClass`
: The font's style includes highly decorated or stylized character shapes such as those typically used in headlines.

  Available in Mac OS X v10.4 and later.

  Declared in `NSFontDescriptor.h`.

`NSFontScriptsClass`
: The font's style is among those typefaces designed to simulate handwriting.

  Available in Mac OS X v10.4 and later.

  Declared in `NSFontDescriptor.h`.

`NSFontSymbolicClass`
: The font's style is generally design independent, making it suitable for special characters (icons, dingbats, technical symbols, and so on) that may be used equally well with any font.

  Available in Mac OS X v10.4 and later.

  Declared in `NSFontDescriptor.h`.

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

Declared In
`NSFontDescriptor.h`

NSFontFamilyClassMask

This constant is used to access `NSFontFamilyClass` values in the upper four bits of `NSFontSymbolicTraits`.

```
enum {
    NSFontFamilyClassMask = 0xF0000000
};
```

Constants
`NSFontFamilyClassMask`
: The font family class mask used to access `NSFontFamilyClass` values.

  Available in Mac OS X v10.4 and later.

  Declared in `NSFontDescriptor.h`.

Typeface Information

Typeface information is specified by the lower 16 bits of `NSFontSymbolicTraits` using the following constants.

```
enum {
    NSFontItalicTrait = (1 << 0),
    NSFontBoldTrait = (1 << 1),
    NSFontExpandedTrait = (1 << 5),
    NSFontCondensedTrait = (1 << 6),
    NSFontMonoSpaceTrait = (1 << 10),
    NSFontVerticalTrait = (1 << 11),
    NSFontUIOptimizedTrait = (1 << 12)
};
```

Constants

`NSFontItalicTrait`

The font's typestyle is italic.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontBoldTrait`

The font's typestyle is boldface.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontExpandedTrait`

The font's typestyle is expanded. Expanded and condensed traits are mutually exclusive.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontCondensedTrait`

The font's typestyle is condensed. Expanded and condensed traits are mutually exclusive.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontMonoSpaceTrait`

The font uses fixed-pitch glyphs if available. The font may have multiple glyph advances (many CJK glyphs contain two spaces).

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontVerticalTrait`

The font uses vertical glyph variants and metrics.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

`NSFontUIOptimizedTrait`

The font synthesizes appropriate attributes for user interface rendering, such as control titles, if necessary.

Available in Mac OS X v10.4 and later.

Declared in `NSFontDescriptor.h`.

Declared In

`NSFontDescriptor.h`

Document Revision History

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

Date	Notes
2008-03-11	Added description of NSFontFamilyClassMask constant.
2007-04-04	Documented methods and constants added in Mac OS X v10.5.
2006-07-24	Added descriptions for typeface and typestyle constants.
2006-05-23	First publication of this content as a separate document.

Document Revision History

Index

O

P

S

T