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# Application Kit Data Types Reference

[Cocoa > Objective-C Language](#)



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# Application Kit Data Types Reference

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<b>Declared in</b>	NSApplication.h NSBrowser.h NSColorList.h NSGraphics.h NSInterfaceStyle.h NSOpenGL.h NSSavePanel.h NSScreen.h NSSimpleHorizontalTypesetter.h NSTabViewItem.h

## Overview

This document describes the data types defined in the Application Kit framework and not described in a document for an individual class.

## Data Types

### **NSAnimationEffect**

This type defines the standard system animation effects, which include both display and sound.

```
typedef enum _NSAnimationEffect {  
    NSAnimationEffectDisappearingItemDefault = 0,  
    NSAnimationEffectPoof = 10  
} NSAnimationEffect;
```

#### **Constants**

`NSAnimationEffectDisappearingItemDefault`

The default effect.

Available in Mac OS X v10.3 and later.

Declared in `NSGraphics.h`.

`NSAnimationEffectPoof`

An effect showing a puff of smoke.

Available in Mac OS X v10.3 and later.

Declared in `NSGraphics.h`.

### Discussion

These effects are used to indicate that an item was removed from a collection, such as a toolbar, without deleting the underlying data. See `NSShowAnimationEffect`.

### Availability

Available in Mac OS X v10.3 and later.

### Declared In

`NSGraphics.h`

## NSBrowserAuxiliaryOpaque

A private data structure used internally by `NSBrowser`.

```
typedef struct NSBrowserAuxiliary NSBrowserAuxiliaryOpaque;
```

### Availability

Available in Mac OS X v10.3 and later.

### Declared In

`NSBrowser.h`

## NSColorListAuxiliaryOpaque

A private data structure used internally by `NSColorList`.

```
typedef struct NSColorListAuxiliary NSColorListAuxiliaryOpaque;
```

### Availability

Available in Mac OS X v10.3 and later.

### Declared In

`NSColorList.h`

## NSFocusRingPlacement

The focus ring style indicates how the focus ring will be drawn.

```
typedef enum {  
    NSFocusRingOnly = 0,  
    NSFocusRingBelow = 1,  
    NSFocusRingAbove = 2  
} NSFocusRingPlacement;
```

### Constants

`NSFocusRingAbove`

Use `NSFocusRingAbove` to draw over an image.

Fill a shape to add the focus ring around the shape.

Available in Mac OS X v10.1 and later.

Declared in `NSGraphics.h`.

`NSFocusRingBelow`

Use `NSFocusRingBelow` to draw the focus ring under text.

Available in Mac OS X v10.1 and later.

Declared in `NSGraphics.h`.

`NSFocusRingOnly`

Use `NSFocusRingOnly` if you don't have an image or text.

Available in Mac OS X v10.1 and later.

Declared in `NSGraphics.h`.

**Availability**

Available in Mac OS X v10.1 and later.

**Declared In**

`NSGraphics.h`

## **NSFocusRingType**

The focus ring type is used by `NSView` and `NSCell` to configure if and how a control should draw its focus ring.

```
typedef enum _NSFocusRingType {
    NSFocusRingTypeDefault = 0,
    NSFocusRingTypeNone    = 1,
    NSFocusRingTypeExterior = 2
} NSFocusRingType;
```

**Constants**

`NSFocusRingTypeDefault`

The default focus ring type for `NSView` or `NSCell`.

Available in Mac OS X v10.3 and later.

Declared in `NSGraphics.h`.

`NSFocusRingTypeNone`

No focus ring. If you set the focus ring type to this value, `NSView` and `NSCell` will not draw any focus ring.

Available in Mac OS X v10.3 and later.

Declared in `NSGraphics.h`.

`NSFocusRingTypeExterior`

The standard Aqua focus ring.

Available in Mac OS X v10.3 and later.

Declared in `NSGraphics.h`.

**Availability**

Available in Mac OS X v10.3 and later.

**Declared In**

`NSGraphics.h`

## NSInterfaceStyle

These constants are used in `NSResponder`'s `interfaceStyle` method.

```
typedef enum {
    NSNoInterfaceStyle          = 0,
    NSNextStepInterfaceStyle    = 1,
    NSWindows95InterfaceStyle   = 2,
    NSMacintoshInterfaceStyle   = 3
} NSInterfaceStyle;
```

### Constants

`NSNoInterfaceStyle`

The default interface style.

Available in Mac OS X v10.0 and later.

Declared in `NSInterfaceStyle.h`.

`NSNextStepInterfaceStyle`

The NextStep interface style.

Available in Mac OS X v10.0 and later.

Declared in `NSInterfaceStyle.h`.

`NSWindows95InterfaceStyle`

The Windows 95 interface style.

Available in Mac OS X v10.0 and later.

Declared in `NSInterfaceStyle.h`.

`NSMacintoshInterfaceStyle`

The Macintosh interface style.

Available in Mac OS X v10.0 and later.

Declared in `NSInterfaceStyle.h`.

### Availability

Available in Mac OS X v10.0 and later.

### Declared In

`NSInterfaceStyle.h`

## NSModalSession

Variables of type `NSModalSession` point to information used by the system between `NSApplication`'s `beginModalSessionForWindow:` and `endModalSession:` messages.

```
typedef struct _NSModalSession *NSModalSession;
```

### Availability

Available in Mac OS X v10.0 and later.

### Declared In

`NSApplication.h`



## NSOpenGLContextAuxiliary

A private data structure used by `NSOpenGLContext`.

```
typedef struct _CGLContextObject NSOpenGLContextAuxiliary;
```

### Availability

Available in Mac OS X v10.0 and later.

### Declared In

`NSOpenGL.h`

## NSOpenGLGlobalOption

These constants are option names for `NSOpenGLSetOption` and `NSOpenGLGetOption`.

```
typedef enum {
    NSOpenGLGLOFormatCacheSize = 501,
    NSOpenGLGLOClearFormatCache = 502,
    NSOpenGLGLORetainRenderers = 503,
    NSOpenGLGLOResetLibrary = 504
} NSOpenGLGlobalOption;
```

### Constants

`NSOpenGLGLOFormatCacheSize`

Sets the size of the pixel format cache.

Available in Mac OS X v10.0 and later.

Declared in `NSOpenGL.h`.

`NSOpenGLGLOClearFormatCache`

Resets the pixel format cache if true.

Available in Mac OS X v10.0 and later.

Declared in `NSOpenGL.h`.

`NSOpenGLGLORetainRenderers`

Whether to retain loaded renderers in memory.

Available in Mac OS X v10.0 and later.

Declared in `NSOpenGL.h`.

`NSOpenGLGLOResetLibrary`

Does a soft reset of the CGL library if true.

Available in Mac OS X v10.0 and later.

Declared in `NSOpenGL.h`.

### Availability

Available in Mac OS X v10.0 and later.

### Declared In

`NSOpenGL.h`

## NSOpenGLPixelFormatAuxiliary

A private data structure used by `NSOpenGLPixelFormat`.

```
typedef struct _CGLPixelFormatObject NSOpenGLPixelFormatAuxiliary;
```

**Availability**

Available in Mac OS X v10.0 and later.

**Declared In**

NSOpenGL.h

### **NSSavePanelAuxiliaryOpaque**

A private data structure used internally by NSSavePanel.

```
typedef struct NSSavePanelAuxiliary NSSavePanelAuxiliaryOpaque;
```

**Availability**

Available in Mac OS X v10.3 and later.

**Declared In**

NSSavePanel.h

### **NSScreenAuxiliaryOpaque**

A private data structure used internally by NSScreen.

```
typedef struct NSScreenAuxiliary NSScreenAuxiliaryOpaque;
```

**Availability**

Available in Mac OS X v10.0 and later.

**Declared In**

NSScreen.h

### **NSTabViewItemAuxiliaryOpaque**

A private data structure used by NSTabViewItem.

```
typedef struct NSTabViewItemAuxiliary NSTabViewItemAuxiliaryOpaque;
```

**Availability**

Available in Mac OS X v10.2 and later.

**Declared In**

NSTabViewItem.h

### **NSTypesetterGlyphInfo**

This type is a caching structure used by NSSimpleHorizontalTypesetter.

```
typedef struct _NSTypesetterGlyphInfo {
    NSPoint curLocation;
    float extent;
    float belowBaseline;
    float aboveBaseline;
    unsigned glyphCharacterIndex;
    NSFont *font;
    NSSize attachmentSize;
    struct {
        BOOL defaultPositioning:1;
        BOOL dontShow:1;
        BOOL isAttachment:1;
    } _giflags;
} NSTypesetterGlyphInfo;
```

**Fields**

curLocation

Location (relative to the baseline) for laying this glyph out.

extent

Required space from curLocation to lay this glyph out; -1.0 if not set.

belowBaseline

Distance from baseline to bottom of the line fragment required for all the glyphs so far, including this one (positive if baseline is above the bottom of the line fragment).

aboveBaseline

Distance from baseline to top of the line fragment required for all the glyphs so far, including this one (positive if baseline is below the top of the line fragment).

glyphCharacterIndex

Character index.

font

Font.

attachmentSize

Size of the character if it's an attachment; otherwise meaningless.

defaultPositioning

This block needs to be "show"ed.

dontShow

Don't show this glyph.

isAttachment

Whether the glyph is an attachment.

**Availability**

Available in Mac OS X v10.0 and later.

**Declared In**

NSSimpleHorizontalTypesetter.h



# Document Revision History

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This table describes the changes to *Application Kit Data Types Reference*.

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

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