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# NSViewAnimation Class Reference

Graphics & Animation: Animation



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# NSViewAnimation Class Reference

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| <b>Inherits from</b>       | NSAnimation : NSObject   |
| <b>Conforms to</b>         | NSCoding (NSAnimation)<br>NSCopying (NSAnimation)<br>NSObject (NSObject) |
| <b>Framework</b>           | /System/Library/Frameworks/AppKit.framework                              |
| <b>Availability</b>        | Available in Mac OS X v10.4 and later.                                   |
| <b>Companion guide</b>     | Cocoa Drawing Guide  |
| <b>Declared in</b>         | NSAnimation.h  |
| <b>Related sample code</b> | From A View to A Movie<br>iSpend<br>QTCoreVideo301<br>Reducer            |

## Overview

The `NSViewAnimation` class, a public subclass of `NSAnimation`, offers a convenient way to animate multiple views and windows. The animation effects you can achieve are limited to changes in frame location and size, and to fade-in and fade-out effects.

An `NSViewAnimation` object takes an array of dictionaries from which it determines the objects to animate and the effects to apply to them. Each dictionary must have a target object and, optionally, properties that specify beginning and ending frame and whether to fade in or fade out. (See [“View Animation Dictionary Keys”](#) (page 7) for further information.) Animations with `NSViewAnimation` are, by default, in non-blocking mode over a duration of 0.5 seconds using the ease in-out animation curve. But you can configure the animation to have any duration, curve, frame rate, and blocking mode. You may also set progress marks, assign a delegate, and implement delegation methods in order to animate view and windows concurrent with the ones specified as targets in the view-animation dictionary.

Invoking the `NSAnimation stopAnimation` method on a running `NSViewAnimation` object moves the animation to the end frame.

## Tasks

### Initializing an NSViewAnimation Object

- [initWithViewAnimations:](#) (page 6)  
Returns an `NSViewAnimation` object initialized with the supplied information.

### Getting and Setting View-animation Dictionaries

- [setViewAnimations:](#) (page 7)  
Sets the dictionaries defining the objects to animate.
- [viewAnimations](#) (page 7)  
Returns the array of dictionaries defining the objects to animate.

## Instance Methods

### **initWithViewAnimations:**

Returns an `NSViewAnimation` object initialized with the supplied information.

```
- (id)initWithViewAnimations:(NSArray *)viewAnimations
```

#### **Parameters**

*viewAnimations*

An array of `NSDictionary` objects. Each dictionary specifies a view or window to animate and the effect to apply. *viewAnimations* can be `nil`, but you must later set the required array of dictionaries with [setViewAnimations:](#) (page 7) if you want to use the capabilities of the `NSViewAnimation` class. See “[View Animation Dictionary Keys](#)” (page 7) for a description of valid keys and values for dictionaries in *viewAnimations*.

#### **Return Value**

The created `NSViewAnimation` object or `nil` if there was a problem initializing the object.

#### **Availability**

Available in Mac OS X v10.4 and later.

#### **Related Sample Code**

From A View to A Movie

iSpend

QTCoreVideo301

Reducer

#### **Declared In**

`NSAnimation.h`

## setViewAnimations:

Sets the dictionaries defining the objects to animate.

```
- (void)setViewAnimations:(NSArray *)viewAnimations
```

### Parameters

*viewAnimations*

An array of `NSDictionary` objects. Each dictionary specifies a view or window to animate and the effect to apply. Pass in `nil` to remove the current list of dictionaries. See “[View Animation Dictionary Keys](#)” (page 7) for a description of valid keys and values for dictionaries in *viewAnimations*.

### Availability

Available in Mac OS X v10.4 and later.

### See Also

- [viewAnimations](#) (page 7)

### Related Sample Code

From A View to A Movie

### Declared In

`NSAnimation.h`

## viewAnimations

Returns the array of dictionaries defining the objects to animate.

```
- (NSArray *)viewAnimations
```

### Discussion

Each dictionary in the returned array specifies a view or window to animate and the effect to apply.

### Availability

Available in Mac OS X v10.4 and later.

### See Also

- [setViewAnimations:](#) (page 7)

### Declared In

`NSAnimation.h`

## Constants

### View Animation Dictionary Keys

The following string constants are keys for the dictionaries in the array passed into [initWithViewAnimations:](#) (page 6) and [setViewAnimations:](#) (page 7).

```
NSString *NSViewAnimationTargetKey;
NSString *NSViewAnimationStartFrameKey;
NSString *NSViewAnimationEndFrameKey;
NSString *NSViewAnimationEffectKey;
```

**Constants**

`NSViewAnimationTargetKey`

The target of the animation.

The target can be either an `NSView` object or an `NSWindow` object. This property is required.

Available in Mac OS X v10.4 and later.

Declared in `NSAnimation.h`.

`NSViewAnimationStartFrameKey`

The size and location of the window or view at the start of the animation.

The size and location are specified by an `NSRect` structure encoded in an `NSValue` object. This property is optional. If it is not specified, `NSViewAnimation` uses the frame of the window or view at the start of the animation.

Available in Mac OS X v10.4 and later.

Declared in `NSAnimation.h`.

`NSViewAnimationEndFrameKey`

The size and location of the window or view at the end of the animation.

The size and location are specified by an `NSRect` structure encoded in an `NSValue` object. This property is optional. If it is not specified, `NSViewAnimation` uses the frame of the window or view at the start of the animation. If the target is a view and the end frame is empty, the view is hidden at the end.

Available in Mac OS X v10.4 and later.

Declared in `NSAnimation.h`.

`NSViewAnimationEffectKey`

An effect to apply to the animation.

Takes a string constant specifying fade-in or fade-out effects for the target:

`NSViewAnimationFadeInEffect` and `NSViewAnimationFadeOutEffect`. If the target is a view and the effect is to fade out, the view is hidden at the end. If the effect is to fade in an initially hidden view and the end frame is non-empty, the view is unhidden at the end. If the target is a window, the window is ordered in or out as appropriate to the effect. This property is optional.

Available in Mac OS X v10.4 and later.

Declared in `NSAnimation.h`.

**Declared In**

`NSAnimation.h`

**Values for NSViewAnimationEffectKey**

The following constants specify the animation effect to apply and are used as values for the animation effect property of the animation view. See the description of `NSViewAnimationEffectKey` for usage details.

```
NSString *NSViewAnimationFadeInEffect;  
NSString *NSViewAnimationFadeOutEffect;
```

**Constants**

`NSViewAnimationFadeInEffect`

Specifies a fade-in type of effect.

Available in Mac OS X v10.4 and later.

Declared in `NSAnimation.h`.

`NSViewAnimationFadeOutEffect`

Specifies a fade-out type of effect.

Available in Mac OS X v10.4 and later.

Declared in `NSAnimation.h`.

**Availability**

Available in Mac OS X v10.4 and later

**Declared In**

`NSAnimation.h`



# Document Revision History

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

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

**REVISION HISTORY**

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