NSAnimationContext Class Reference

Cocoa > Graphics & Imaging

2008-02-08

Apple Inc.
© 2008 Apple Inc.
All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, mechanical, electronic, photocopying, recording, or otherwise, without prior written permission of Apple Inc., with the following exceptions: Any person is hereby authorized to store documentation on a single computer for personal use only and to print copies of documentation for personal use provided that the documentation contains Apple's copyright notice.

The Apple logo is a trademark of Apple Inc.

Use of the "keyboard" Apple logo (Option-Shift-K) for commercial purposes without the prior written consent of Apple may constitute trademark infringement and unfair competition in violation of federal and state laws.

No licenses, express or implied, are granted with respect to any of the technology described in this document. Apple retains all intellectual property rights associated with the technology described in this document. This document is intended to assist application developers to develop applications only for Apple-labeled computers.

Every effort has been made to ensure that the information in this document is accurate. Apple is not responsible for typographical errors.

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

Apple, the Apple logo, Cocoa, Mac, and Mac OS are trademarks of Apple Inc., registered in the United States and other countries.

Simultaneously published in the United States and Canada.

Even though Apple has reviewed this document, APPLE MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS DOCUMENT, ITS QUALITY, ACCURACY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS DOCUMENT IS PROVIDED "AS IS," AND YOU, THE READER, ARE ASSUMING THE ENTIRE RISK AS TO ITS QUALITY AND ACCURACY.

IN NO EVENT WILL APPLE BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT OR INACCURACY IN THIS DOCUMENT, even if advised of the possibility of such damages.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, ORAL OR WRITTEN, EXPRESS OR IMPLIED. No Apple dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Contents

NSAnimationContext Class Reference 5

Overview 5
Tasks 6
- Grouping Transactions 6
- Getting the Current Animation Context 6
- Modifying the Animation Duration 6

Class Methods 6
- beginGrouping 6
- currentContext 7
- endGrouping 7

Instance Methods 7
- duration 7
- setDuration: 8

Document Revision History 9

Index 11

2008-02-08 | © 2008 Apple Inc. All Rights Reserved.

2008-02-08 | © 2008 Apple Inc. All Rights Reserved.

NSAnimationContext Class Reference

Inherits from	NSObject
Conforms to	NSObject (NSObject)
Framework	/System/Library/Frameworks/AppKit.framework
Availability	Available in Mac OS X v10.5 and later.
Declared in	NSAnimationContext.h
Related sample code	BasicCocoaAnimations LayerBackedOpenGLView MethodReplacement TrackBall

Overview

`NSAnimationContext` is analogous to `CATransaction` and are similar in overall concept to `NSGraphicsContext`. Each thread maintains its own stack of nestable `NSAnimationContext` instances, with each new instance initialized as a copy of the instance below (so, inheriting its current properties).

Multiple `NSAnimationContext` instances can be nested, allowing a given block of code to initiate animations using its own specified duration without affecting animations initiated by surrounding code.

```
[NSAnimationContext beginGrouping];
// Animate enclosed operations with a duration of 1 second
[[NSAnimationContext currentContext] setDuration:1.0];
[[aView animator] setFrame:newFrame];
...
    [NSAnimationContext beginGrouping];
    // Animate alpha fades with half-second duration
    [[NSAnimationContext currentContext] setDuration:0.5];
    [[aView animator] setAlphaValue:0.75];
    [[bView animator] setAlphaValue:0.75];
    [NSAnimationContext endGrouping];
...
// Will animate with a duration of 1 second
[[bView animator] setFrame:secondFrame];
[NSAnimationContext endGrouping];
```


2008-02-08 | © 2008 Apple Inc. All Rights Reserved.

Tasks

Grouping Transactions

`+ beginGrouping` (page 6)
Creates a new animation grouping.

`+ endGrouping` (page 7)
Ends the current animation grouping.

Getting the Current Animation Context

`+ currentContext` (page 7)
Returns the current animation context.

Modifying the Animation Duration

`- setDuration:` (page 8)
Sets the duration used by animations created as a result of setting new values for an animatable property.

`- duration` (page 7)
Returns the duration used when animating object properties that support animation.

Class Methods

beginGrouping

Creates a new animation grouping.

```
+ (void)beginGrouping
```

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

Related Sample Code
BasicCocoaAnimations
LayerBackedOpenGLView
MethodReplacement
TrackBall

Declared In
`NSAnimationContext.h`

2008-02-08 | © 2008 Apple Inc. All Rights Reserved.

currentContext

Returns the current animation context.

```
+ (NSAnimationContext *)currentContext
```

Return Value
The current animation context.

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

Related Sample Code
BasicCocoaAnimations
LayerBackedOpenGLView
MethodReplacement
TrackBall

Declared In
`NSAnimationContext.h`

endGrouping

Ends the current animation grouping.

```
+ (void)endGrouping
```

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

Related Sample Code
BasicCocoaAnimations
LayerBackedOpenGLView
MethodReplacement
TrackBall

Declared In
`NSAnimationContext.h`

Instance Methods

duration

Returns the duration used when animating object properties that support animation.

```
- (NSTimeInterval)duration
```

Return Value
The duration in seconds.

2008-02-08 | © 2008 Apple Inc. All Rights Reserved.

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

Declared In
`NSAnimationContext.h`

setDuration:

Sets the duration used by animations created as a result of setting new values for an animatable property.

```
- (void)setDuration:(NSTimeInterval)duration
```

Parameters

duration

The duration in seconds.

Discussion
Any animations that occur as a result of setting the values of animatable properties in the current context will run for this duration.

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

Related Sample Code
BasicCocoaAnimations
LayerBackedOpenGLView
MethodReplacement
TrackBall

Declared In
`NSAnimationContext.h`

2008-02-08 | © 2008 Apple Inc. All Rights Reserved.

Document Revision History

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

Date	Notes
2008-02-08	Corrected typos.
2006-07-13	New document that describes the class that provides nested transaction support for animating views.

2008-02-08 | © 2008 Apple Inc. All Rights Reserved.

Document Revision History

2008-02-08 | © 2008 Apple Inc. All Rights Reserved.

Index

B

`beginGrouping` class method 6

C

`currentContext` class method 7

D

`duration` instance method 7

E

`endGrouping` class method 7

S

`setDuration:` instance method 8

2008-02-08 | © 2008 Apple Inc. All Rights Reserved.