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# CAAction Protocol Reference

[Graphics & Imaging](#) > Quartz



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# CAAction Protocol Reference

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|-------------------------|---|
| <b>Adopted by</b>       | CAAnimation   |
| <b>Framework</b>        | /System/Library/Frameworks/QuartzCore.framework             |
| <b>Availability</b>     | Available in Mac OS X v10.5 and later.                      |
| <b>Declared in</b>      | CALayer.h   |
| <b>Companion guides</b> | Core Animation Programming Guide<br>Core Animation Cookbook |

## Overview

The `CAAction` protocol provides an interface that allows an object to respond to an action triggered by an `CALayer`. When queried with an action identifier (a key path, an external action name, or a predefined action identifier) the layer returns the appropriate action object—which must implement the `CAAction` protocol—and sends it a `runActionForKey:object:arguments:` (page 5) message.

## Tasks

### Responding to an Action

- `runActionForKey:object:arguments:` (page 5)  
Called to trigger the action specified by the identifier.

## Instance Methods

### `runActionForKey:object:arguments:`

Called to trigger the action specified by the identifier.

- (void)runActionForKey:(NSString \*)key  
object:(id)anObject  
arguments:(NSDictionary \*)dict

### Parameters

*key*

The identifier of the action. The identifier may be a key or key path relative to *anObject*, an arbitrary external action, or one of the action identifiers defined in *CALayer Class Reference*.

*anObject*

The layer on which the action should occur.

*dict*

A dictionary containing parameters associated with this event. May be *nil*.

### Availability

Available in Mac OS X v10.5 and later.

### Declared In

*CALayer.h*

# Document Revision History

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This table describes the changes to *CAAction Protocol Reference*.

| Date       | Notes  |
|------------|--|
| 2007-07-24 | New document that describes the protocol used by objects to respond to actions initiated by a layer. |

## REVISION HISTORY

### Document Revision History



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