Animatable Properties

Many of the properties in `CALayer` and `CIFilter` can be animated. This appendix lists those properties, along with the animation used by default.

CALayer Animatable Properties

Table B–1 lists the properties of the `CALayer` class that you might consider animating. For each property, the table also lists the type of default animation object that is created to execute an implicit animation.

Table B–1 Layer properties and their default animations

Property	Default animation
anchorPoint	Uses the default implied `CABasicAnimation` object, described in Table B–2.
backgroundColor	Uses the default implied `CABasicAnimation` object, described in Table B–2.
backgroundFilters	Uses the default implied `CATransition` object, described in Table B–3. Sub-properties of the filters are animated using the default implied `CABasicAnimation` object, described in Table B–2.
borderColor	Uses the default implied `CABasicAnimation` object, described in Table B–2.
borderWidth	Uses the default implied `CABasicAnimation` object, described in Table B–2.
bounds	Uses the default implied `CABasicAnimation` object, described in Table B–2.
compositingFilter	Uses the default implied `CATransition` object, described in Table B–3. Sub-properties of the filters are animated using the default implied `CABasicAnimation` object, described in Table B–2.
contents	Uses the default implied `CABasicAnimation` object, described in Table B–2.
contentsRect	Uses the default implied `CABasicAnimation` object, described in Table B–2.
cornerRadius	Uses the default implied `CABasicAnimation` object, described in Table B–2.
doubleSided	There is no default implied animation.
filters	Uses the default implied `CABasicAnimation` object, described in Table B–2. Sub-properties of the filters are animated using the default implied `CABasicAnimation` object, described in Table B–2.
frame	This property is not animatable. You can achieve the same results by animating the `bounds` and `position` properties.

`hidden`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`mask`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`masksToBounds`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`opacity`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`position`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`shadowColor`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`shadowOffset`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`shadowOpacity`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`shadowPath`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`shadowRadius`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`sublayers`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`sublayerTransform`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`transform`	Uses the default implied `CABasicAnimation` object, described in Table B–2.
`zPosition`	Uses the default implied `CABasicAnimation` object, described in Table B–2.

Table B–2 lists the animation attributes for the default property–based animations.

Table B-2 Default Implied Basic Animation

Description	Value
Class	`CABasicAnimation`
Duration	0.25 seconds, or the duration of the current transaction
Key path	Set to the property name of the layer.

Table B–3 lists the animation object configuration for default transition–based animations.

Table B-3 Default Implied Transition

Description	Value
Class	CATransition
Duration	0.25 seconds, or the duration of the current transaction
Type	Fade (kCATransitionFade)
Start progress	0.0
End progress	1.0

CIFilter Animatable Properties

Core Animation adds the following animatable properties to Core Image's `CIFilter` class. These properties are available only on OS X.

- name
- enabled

For more information about these additions, see *CIFilter Core Animation Additions*.