QTMedia Class Reference

QuickTime > Cocoa

2009-03-04

Apple Inc.
© 2009 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, Mac OS, Quartz, and QuickTime 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

QTMedia Class Reference 5

Overview 5
Tasks 5
- Creating a QTMedia Object 5
- Initializing a QTMedia Object 5
- Accessing Media Properties 5
- Accessing QuickTime Media Data 6

Class Methods 6
- mediaWithQuickTimeMedia:error: 6

Instance Methods 7
- attributeForKey: 7
- hasCharacteristic: 7
- initWithQuickTimeMedia:error: 7
- mediaAttributes 8
- quickTimeMedia 8
- setAttribute:forKey: 9
- setMediaAttributes: 9
- track 9

Constants 10
- Media Types 10
- Media Characteristics 12
- Media Attributes 13

Document Revision History 15

Index 17

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

QTMedia Class Reference

Inherits from	NSObject
Conforms to	NSObject (NSObject)
Framework	/System/Library/Frameworks/QTKit.framework
Availability	Available in Mac OS X v10.4 and later.
Declared in	QTMedia.h
Related sample code	QTKitTimeCode QTMetadataEditor

Overview

The `QTMedia` class represents a QuickTime media (of type `Media`). `QTMedia` objects are associated with `QTTrack` objects and support methods for getting and setting the media properties. If necessary, you can retrieve the media identifier associated with a `QTMedia` object by calling its `quickTimeMedia` (page 8) method.

Tasks

Creating a QTMedia Object

`+ mediaWithQuickTimeMedia:error:` (page 6)
Creates a new QTMedia object with QuickTime media data.

Initializing a QTMedia Object

`- initWithQuickTimeMedia:error:` (page 7)
Initializes a new QTMedia object with QuickTime media data.

Accessing Media Properties

`- track` (page 9)
Returns the `QTTrack` object that contains the media.

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

- `hasCharacteristic:` (page 7)
  Returns whether the media has the specified characteristic.
- `attributeForKey:` (page 7)
  Returns the value of the specified media attribute.
- `setAttribute:forKey:` (page 9)
  Sets the value of the specified media attribute.
- `mediaAttributes` (page 8)
  Returns a dictionary containing all of the media's attributes.
- `setMediaAttributes:` (page 9)
  Sets the media's attributes using the values from the supplied dictionary.

Accessing QuickTime Media Data

- `quickTimeMedia` (page 8)
  Returns the QuickTime media associated with the media object.

Class Methods

mediaWithQuickTimeMedia:error:

Creates a new QTMedia object with QuickTime media data.

```
+ (id)mediaWithQuickTimeMedia:(Media)media error:(NSError **)errorPtr
```

Parameters

media
  The QuickTime media data with which to initialize the media object.

errorPtr
  On return, if the media object could not be created, a pointer to an error indicating the reason for the failure.

Return Value
The newly created media object.

Availability
Available in Mac OS X v10.3 and later.
Not available to 64-bit applications.

Declared In
`QTMedia.h`

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

Instance Methods

attributeForKey:

Returns the value of the specified media attribute.

```
- (id)attributeForKey:(NSString *)attributeKey
```

Parameters

attributeKey

The key for the desired attribute. Possible attribute keys are listed in "Media Attributes" (page 13).

Return Value

The value of the specified attribute.

Availability

Available in Mac OS X v10.3 and later.

See Also

- setAttribute:forKey: (page 9)

Related Sample Code

QTMetadataEditor

Declared In

QTMedia.h

hasCharacteristic:

Returns whether the media has the specified characteristic.

```
- (BOOL)hasCharacteristic:(NSString *)characteristic
```

Parameters

characteristic

The characteristic being tested. Possible characteristics are listed in "Media Characteristics" (page 12).

Return Value

YES if the media has the specified characteristic, NO otherwise.

Availability

Available in Mac OS X v10.3 and later.

Declared In

QTMedia.h

initWithQuickTimeMedia:error:

Initializes a new QTMedia object with QuickTime media data.

```
- (id)initWithQuickTimeMedia:(Media)media error:(NSError **)errorPtr
```


2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

Parameters

media

The QuickTime media data with which to initialize the media object.

errorPtr

On return, if the media object could not be created, a pointer to an error indicating the reason for the failure.

Return Value
The newly initialized media object.

Availability
Available in Mac OS X v10.3 and later.
Not available to 64-bit applications.

Declared In
QTMedia.h

mediaAttributes

Returns a dictionary containing all of the media's attributes.

```
- (NSDictionary *)mediaAttributes
```

Return Value
A dictionary containing all of the media's attributes.

Discussion
Possible attribute keys are listed in "Media Attributes" (page 13).

Availability
Available in Mac OS X v10.3 and later.

See Also
- setMediaAttributes: (page 9)

Declared In
QTMedia.h

quickTimeMedia

Returns the QuickTime media associated with the media object.

```
- (Media)quickTimeMedia
```

Return Value
The QuickTime media associated with the media object.

Availability
Available in Mac OS X v10.3 and later.
Not available to 64-bit applications.

Declared In
QTMedia.h

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

setAttribute:forKey:

Sets the value of the specified media attribute.

```
- (void)setAttribute:(id)value forKey:(NSString *)attributeKey
```

Parameters

value

The new value for the specified attribute.

attributeKey

The key for the attribute to set. Possible attribute keys are listed in "Media Attributes" (page 13).

Availability
Available in Mac OS X v10.3 and later.

See Also
- attributeForKey: (page 7)

Declared In
QTMedia.h

setMediaAttributes:

Sets the media's attributes using the values from the supplied dictionary.

```
- (void)setMediaAttributes:(NSDictionary *)attributes
```

Parameters

attributes

A dictionary containing the new attribute keys and values.

Discussion
Possible attribute keys are listed in "Media Attributes" (page 13).

Availability
Available in Mac OS X v10.3 and later.

See Also
- mediaAttributes (page 8)

Declared In
QTMedia.h

track

Returns the QTTrack object that contains the media.

```
- (QTTrack *)track
```

Return Value
The QTTrack object that contains the media.

Availability
Available in Mac OS X v10.3 and later.

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

Declared In
`QTMedia.h`

Constants

Media Types

Constants for different media types. Compare these constants with the value associated with the `QTMediaTypeAttribute` key.

```
NSString * const QTMediaTypeVideo;
NSString * const QTMediaTypeSound;
NSString * const QTMediaTypeText;
NSString * const QTMediaTypeBase;
NSString * const QTMediaTypeMPEG;
NSString * const QTMediaTypeMusic;
NSString * const QTMediaTypeTimeCode;
NSString * const QTMediaTypeSprite;
NSString * const QTMediaTypeFlash;
NSString * const QTMediaTypeMovie;
NSString * const QTMediaTypeTween;
NSString * const QTMediaType3D;
NSString * const QTMediaTypeSkin;
NSString * const QTMediaTypeQTVR;
NSString * const QTMediaTypeHint;
NSString * const QTMediaTypeStream;
NSString * const QTMediaTypeMuxed;
NSString * const QTMediaTypeQuartzComposer;
```

Constants

`QTMediaTypeVideo`
Video media.
Available in Mac OS X v10.3 and later.
Declared in `QTMedia.h`.

`QTMediaTypeSound`
Sound media.
Available in Mac OS X v10.3 and later.
Declared in `QTMedia.h`.

`QTMediaTypeText`
Text media.
Available in Mac OS X v10.3 and later.
Declared in `QTMedia.h`.

`QTMediaTypeBase`
Base media.
Available in Mac OS X v10.3 and later.
Declared in `QTMedia.h`.

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

`QTMediaTypeMPEG`
MPEG media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTypeMusic`
Music media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTypeTimeCode`
Timecode media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTypeSprite`
Sprite media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTypeFlash`
Flash media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTypeMovie`
Movie media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTypeTween`
Tween media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaType3D`
3D media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTypeSkin`
Skin media

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTypeQTVR`
QuickTime VR media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

`QTMediaTypeHint`
Hint media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTypeStream`
Stream media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTypeMuxed`
Multiplexed audio and video media.

Available in Mac OS X v10.5 and later.

Declared in `QTMedia.h`.

`QTMediaTypeQuartzComposer`
Quartz Composer media.

Available in Mac OS X v10.5 and later.

Declared in `QTMedia.h`.

Media Characteristics

Characteristics of a given media. You can query for these characteristics using the `hasCharacteristic:` (page 7) method.

```
NSString * const QTMediaCharacteristicVisual;
NSString * const QTMediaCharacteristicAudio;
NSString * const QTMediaCharacteristicCanSendVideo;
NSString * const QTMediaCharacteristicProvidesActions;
NSString * const QTMediaCharacteristicNonLinear;
NSString * const QTMediaCharacteristicCanStep;
NSString * const QTMediaCharacteristicHasNoDuration;
NSString * const QTMediaCharacteristicHasSkinData;
NSString * const QTMediaCharacteristicProvidesKeyFocus;
NSString * const QTMediaCharacteristicHasVideoFrameRate;
```

Constants

`QTMediaCharacteristicVisual`
The media has video data.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaCharacteristicAudio`
The media has audio data.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaCharacteristicCanSendVideo`
The media can send visual data to another track.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

`QTMediaCharacteristicProvidesActions`
The media has actions.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaCharacteristicNonLinear`
The media is non-linear.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaCharacteristicCanStep`
The media can step.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaCharacteristicHasNoDuration`
The media has no duration.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaCharacteristicHasSkinData`
The media has skin data.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaCharacteristicProvidesKeyFocus`
Key events can be focused at the media.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaCharacteristicHasVideoFrameRate`
The media has a video frame rate.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

Media Attributes

The following constants are keys for the media attributes that you can get and set using the `mediaAttributes` (page 8) and `setMediaAttributes:` (page 9) methods. To get or set a single attribute, use `attributeForKey:` (page 7) or `setAttribute:forKey:` (page 9).

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

```
NSString * const QTMediaCreationTimeAttribute;
NSString * const QTMediaDurationAttribute;
NSString * const QTMediaModificationTimeAttribute;
NSString * const QTMediaSampleCountAttribute;
NSString * const QTMediaQualityAttribute;
NSString * const QTMediaTimeScaleAttribute;
NSString * const QTMediaTypeAttribute;
```

Constants

`QTMediaCreationTimeAttribute`

The creation time. The value for this key is of type `NSDate`.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaDurationAttribute`

The duration. The value for this key is of type `NSValue`, interpreted as a `QTTime`.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaModificationTimeAttribute`

The modification time. The value for this key is of type `NSDate`.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaSampleCountAttribute`

The media sample count. The value for this key is of type `NSNumber`, interpreted as a `long`.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaQualityAttribute`

The media quality. The value for this key is of type `NSNumber`, interpreted as a `short`.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTimeScaleAttribute`

The media time scale. The value for this key is of type `NSNumber`, interpreted as a `long`.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

`QTMediaTypeAttribute`

The media type. The value for this key is of type `NSString`. See "Media Types" (page 10) for the values this attribute can return.

Available in Mac OS X v10.3 and later.

Declared in `QTMedia.h`.

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

Document Revision History

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

Date	Notes
2009-03-04	Added parameter descriptions and constant groupings.
2006-05-23	First publication of this content as a separate document.
	First publication of this content as a separate document.

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

Document Revision History

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.

Index

A

attributeForKey: instance method 7

H

hasCharacteristic: instance method 7

I

initWithQuickTimeMedia:error: instance method 7

M

Media Attributes 13
Media Characteristics 12
Media Types 10
mediaAttributes instance method 8
mediaWithQuickTimeMedia:error: class method 6

Q

QTMediaCharacteristicAudio constant 12
QTMediaCharacteristicCanSendVideo constant 12
QTMediaCharacteristicCanStep constant 13
QTMediaCharacteristicHasNoDuration constant 13
QTMediaCharacteristicHasSkinData constant 13
QTMediaCharacteristicHasVideoFrameRate constant 13
QTMediaCharacteristicNonLinear constant 13
QTMediaCharacteristicProvidesActions constant 13
QTMediaCharacteristicProvidesKeyFocus constant 13
QTMediaCharacteristicVisual constant 12
QTMediaCreationTimeAttribute constant 14
QTMediaDurationAttribute constant 14
QTMediaModificationTimeAttribute constant 14
QTMediaQualityAttribute constant 14
QTMediaSampleCountAttribute constant 14
QTMediaTimeScaleAttribute constant 14
QTMediaType3D constant 11
QTMediaTypeAttribute constant 14
QTMediaTypeBase constant 10
QTMediaTypeFlash constant 11
QTMediaTypeHint constant 12
QTMediaTypeMovie constant 11
QTMediaTypeMPEG constant 11
QTMediaTypeMusic constant 11
QTMediaTypeMuxed constant 12
QTMediaTypeQTVR constant 11
QTMediaTypeQuartzComposer constant 12
QTMediaTypeSkin constant 11
QTMediaTypeSound constant 10
QTMediaTypeSprite constant 11
QTMediaTypeStream constant 12
QTMediaTypeText constant 10
QTMediaTypeTimeCode constant 11
QTMediaTypeTween constant 11
QTMediaTypeVideo constant 10
quickTimeMedia instance method 8

S

setAttribute:forKey: instance method 9
setMediaAttributes: instance method 9

T

track instance method 9

2009-03-04 | © 2009 Apple Inc. All Rights Reserved.