
UIImageProvider Protocol Reference

[Cocoa > Graphics & Imaging](#)



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CIImageProvider Protocol Reference

(informal protocol)

Adopted by	NSObject
Framework	Library/Frameworks/QuartzCore.framework
Availability	Available in Mac OS X v10.4 and later
Companion guide	Core Image Programming Guide
Declared in	CIImageProvider.h

Overview

The `CIImageProvider` informal protocol defines methods for supplying bitmap data to create or initialize a `CIImage` object.

Tasks

Providing Image Data

- [provideImageData:bytesPerRow:origin:size:userInfo:](#) (page 5)
Supplies data to a `CIImage` object.

Instance Methods

provideImageData:bytesPerRow:origin:size:userInfo:

Supplies data to a `CIImage` object.

```
- (void)provideImageData:(void *)data bytesPerRow:(size_t)rowbytes origin:(size_t)x:(size_t)y size:(size_t)width:(size_t)height userInfo:(id)info
```

Parameters

data

A pointer to image data. Note that `data[0]` refers to the first byte of the requested subimage, not the larger image buffer.

rowbytes

The number of bytes per row.

x

The x origin of the image data.

y

The y origin of the image data.

width

The width of the image data.

height

The height of the image data.

info

User supplied data, which is optional.

DiscussionYou can supply the image provider to these methods of the `CImage` class:

- `initWithImageProvider:size::format:colorSpace:options:` to create a `CImage` object from image data
- `initWithImageProvider:size::format:colorSpace:options:` to initialize an existing `CImage` with data

You initialize the given bitmap with the subregion specified by the arguments `x`, `y`, `width`, and `height`. The subregion uses the local coordinate space of the image, with the origin at the upper-left corner of the image. If you change the virtual memory mapping of the buffer specified by the `data` argument (such as by using `vm_copy` to modify it), the behavior is undefined.

That this callback always requests the full image data regardless of what is actually visible. All of the image is loaded or none of it is. The exception is when you create a tiled image by specifying the `kCImageProviderTileSize` option. In this case, only the needed tiles are requested.

Availability

Mac OS X v10.4 and later.

Constants

Image Provider Options

Keys for the options dictionary of an image provider.

```
extern NSString *kCImageProviderTileSize;
extern NSString *kCImageProviderUserInfo;
```

Constants`kCImageProviderTileSize`

A key for the image tiles size. The associated value is an `NSArray` that contains `NSNumber` objects for the dimensions of the image tiles requested from the image provider.

Available in Mac OS X v10.4 and later.

Declared in `CImageProvider.h`.

`kCIImageProviderUserInfo`

A key for data needed by the image provider. The associated value is an object that contains the needed data.

Available in Mac OS X v10.4 and later.

Declared in `CIImageProvider.h`.

Discussion

You can use these options when you create or initialize an image provider with such methods as `initWithImageProvider:size::format:colorSpace:options:` or `initWithImageProvider:size::format:colorSpace:options:.`

Declared In

`CIImageProvider.h`

Document Revision History

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

Date	Notes
2006-12-05	Updated formatting.
2006-06-28	Clarified a few technical points.
	Added information to the discussion of provideImageData:bytesPerRow:origin::size::userInfo: (page 5).
2006-05-23	First publication of this content as a separate document.
	Added parameter descriptions.

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