NSURLCache Class Reference

Cocoa > Networking

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NSURLCache Class Reference

Inherits from	NSObject
Conforms to	NSObject (NSObject)
Framework	/System/Library/Frameworks/Foundation.framework
Availability	Available in Mac OS X v10.2 with Safari 1.0 installed. Available in Mac OS X v10.2.7 and later.
Companion guide	URL Loading System
Declared in	NSURLCache.h
Related sample code	URL CacheInfo

Overview

NSURLCache implements the caching of responses to URL load requests by mapping NSURLRequest objects to NSCachedURLResponse objects. It is a composite of an in-memory and an on-disk cache.

Methods are provided to manipulate the sizes of each of these caches as well as to control the path on disk to use for persistent storage of cache data.

Tasks

Getting and Setting Shared Cache

`+ sharedURLCache` (page 7)
Returns the shared NSURLCache instance.

`+ setSharedURLCache:` (page 6)
Sets the shared NSURLCache instance to a specified cache object.

Creating a New Cache Object

`- initWithMemoryCapacity:diskCapacity:diskPath:` (page 9)
Initializes an NSURLCache object with the specified values.

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Getting and Storing Cached Objects

- `cachedResponseForRequest:` (page 8)
  Returns the cached URL response in the cache for the specified URL request.
- `storeCachedResponse:forRequest:` (page 12)
  Stores a cached URL response for a specified request

Removing Cached Objects

- `removeAllCachedResponses` (page 10)
  Clears the receiver's cache, removing all stored cached URL responses.
- `removeCachedResponseForRequest:` (page 11)
  Removes the cached URL response for a specified URL request.

Getting and Setting On-disk Cache Properties

- `currentDiskUsage` (page 8)
  Returns the current size of the receiver's on-disk cache, in bytes.
- `diskCapacity` (page 9)
  Returns the capacity of the receiver's on-disk cache, in bytes.
- `setDiskCapacity:` (page 11)
  Sets the receiver's on-disk cache capacity

Getting and Setting In-memory Cache Properties

- `currentMemoryUsage` (page 9)
  Returns the current size of the receiver's in-memory cache, in bytes.
- `memoryCapacity` (page 10)
  Returns the capacity of the receiver's in-memory cache, in bytes.
- `setMemoryCapacity:` (page 12)
  Sets the receiver's in-memory cache capacity.

Class Methods

setSharedURLCache:

Sets the shared NSURLCache instance to a specified cache object.

```
+ (void)setSharedURLCache:(NSURLCache *)cache
```

Parameters

cache
  The cache object to use as the shared cache object.

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Discussion
Applications that have special caching requirements or constraints should use this method to specify an NSURLCache instance with customized cache settings.

Availability
Available in Mac OS X v10.2 with Safari 1.0 installed.
Available in Mac OS X v10.2.7 and later.

See Also
`+ sharedURLCache` (page 7)

Related Sample Code
URL CacheInfo

Declared In
`NSURLCache.h`

sharedURLCache

Returns the shared NSURLCache instance.

```
+ (NSURLCache *)sharedURLCache
```

Return Value
The shared NSURLCache instance.

Discussion
The disk path is set to: `<user_home_directory>/Library/Caches/<current_process_name>`. The user's home directory is determined by calling `NSHomeDirectory` and the current process name is determined using `[[NSProcessInfo processInfo] processName]`.

Applications that do not have special caching requirements or constraints should find the default shared cache instance acceptable. Applications with more specific needs can create a custom `NSURLCache` object and set it as the shared cache instance using `setSharedURLCache:` (page 6).

Availability
Available in Mac OS X v10.2 with Safari 1.0 installed.
Available in Mac OS X v10.2.7 and later.

See Also
`+ setSharedURLCache:` (page 6)

Related Sample Code
URL CacheInfo

Declared In
`NSURLCache.h`

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Instance Methods

cachedResponseForRequest:

Returns the cached URL response in the cache for the specified URL request.

```
- (NSCachedURLResponse *)cachedResponseForRequest:(NSURLRequest *)request
```

Parameters

request

The URL request whose cached response is desired.

Return Value

The cached URL response for *request*, or `nil` if no response has been cached.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

See Also

- `storeCachedResponse:forRequest:` (page 12)

Related Sample Code

URL CacheInfo

Declared In

`NSURLCache.h`

currentDiskUsage

Returns the current size of the receiver's on-disk cache, in bytes.

```
- (NSUInteger)currentDiskUsage
```

Return Value

The current size of the receiver's on-disk cache, in bytes.

Availability

Available in Mac OS X v10.2 with Safari 1.0 installed.

Available in Mac OS X v10.2.7 and later.

See Also

- `diskCapacity` (page 9)
- `setDiskCapacity:` (page 11)

Related Sample Code

URL CacheInfo

Declared In

`NSURLCache.h`

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currentMemoryUsage

Returns the current size of the receiver's in-memory cache, in bytes.

```
- (NSUInteger)currentMemoryUsage
```

Return Value
The current size of the receiver's in-memory cache, in bytes.

Availability
Available in Mac OS X v10.2 with Safari 1.0 installed.
Available in Mac OS X v10.2.7 and later.

See Also
- `memoryCapacity` (page 10)
- `setMemoryCapacity:` (page 12)

Related Sample Code
URL CacheInfo

Declared In
`NSURLCache.h`

diskCapacity

Returns the capacity of the receiver's on-disk cache, in bytes.

```
- (NSUInteger)diskCapacity
```

Return Value
The capacity of the receiver's on-disk cache, in bytes.

Availability
Available in Mac OS X v10.2 with Safari 1.0 installed.
Available in Mac OS X v10.2.7 and later.

See Also
- `currentDiskUsage` (page 8)
- `setDiskCapacity:` (page 11)

Declared In
`NSURLCache.h`

initWithMemoryCapacity:diskCapacity:diskPath:

Initializes an NSURLCache object with the specified values.

```
- (id)initWithMemoryCapacity:(NSUInteger)memoryCapacity
    diskCapacity:(NSUInteger)diskCapacity diskPath:(NSString *)path
```

Parameters

memoryCapacity
The memory capacity of the cache, in bytes.

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diskCapacity
The disk capacity of the cache, in bytes.

path
The location at which to store the on-disk cache.

Return Value
The initialized NSURLCache object.

Discussion
The returned NSURLCache is backed by disk, so developers can be more liberal with space when choosing the capacity for this kind of cache. A disk cache measured in the tens of megabytes should be acceptable in most cases.

Availability
Available in Mac OS X v10.2 with Safari 1.0 installed.
Available in Mac OS X v10.2.7 and later.

See Also
`+ sharedURLCache` (page 7)

Related Sample Code
URL CacheInfo

Declared In
`NSURLCache.h`

memoryCapacity

Returns the capacity of the receiver's in-memory cache, in bytes.

```
- (NSUInteger)memoryCapacity
```

Return Value
The capacity of the receiver's in-memory cache, in bytes.

Availability
Available in Mac OS X v10.2 with Safari 1.0 installed.
Available in Mac OS X v10.2.7 and later.

See Also
`- currentMemoryUsage` (page 9)
`- setMemoryCapacity:` (page 12)

Declared In
`NSURLCache.h`

removeAllCachedResponses

Clears the receiver's cache, removing all stored cached URL responses.

```
- (void)removeAllCachedResponses
```


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Availability
Available in Mac OS X v10.2 with Safari 1.0 installed.
Available in Mac OS X v10.2.7 and later.

See Also
- `removeCachedResponseForRequest:` (page 11)

Related Sample Code
URL CacheInfo

Declared In
`NSURLCache.h`

removeCachedResponseForRequest:

Removes the cached URL response for a specified URL request.

```
- (void)removeCachedResponseForRequest:(NSURLRequest *)request
```

Parameters

request
The URL request whose cached URL response should be removed. If there is no corresponding cached URL response, no action is taken.

Availability
Available in Mac OS X v10.2 with Safari 1.0 installed.
Available in Mac OS X v10.2.7 and later.

See Also
- `removeAllCachedResponses` (page 10)

Declared In
`NSURLCache.h`

setDiskCapacity:

Sets the receiver's on-disk cache capacity

```
- (void)setDiskCapacity:(NSUInteger)diskCapacity
```

Parameters

diskCapacity
The new on-disk cache capacity, in bytes. The on-disk cache will truncate its contents to *diskCapacity*, if necessary.

Availability
Available in Mac OS X v10.2 with Safari 1.0 installed.
Available in Mac OS X v10.2.7 and later.

See Also
- `currentDiskUsage` (page 8)
- `diskCapacity` (page 9)

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Related Sample Code
URL CacheInfo

Declared In
`NSURLCache.h`

setMemoryCapacity:

Sets the receiver's in-memory cache capacity.

```
- (void)setMemoryCapacity:(NSUInteger)memoryCapacity
```

Parameters

memoryCapacity
The new in-memory cache capacity, in bytes. The in-memory cache will truncate its contents to *memoryCapacity*, if necessary.

Availability
Available in Mac OS X v10.2 with Safari 1.0 installed.
Available in Mac OS X v10.2.7 and later.

See Also
- `currentMemoryUsage` (page 9)
- `memoryCapacity` (page 10)

Related Sample Code
URL CacheInfo

Declared In
`NSURLCache.h`

storeCachedResponse:forRequest:

Stores a cached URL response for a specified request

```
- (void)storeCachedResponse:(NSCachedURLResponse *)cachedResponse
    forRequest:(NSURLRequest *)request
```

Parameters

cachedResponse
The cached URL response to store.

request
The request for which the cached URL response is being stored.

Availability
Available in Mac OS X v10.2 with Safari 1.0 installed.
Available in Mac OS X v10.2.7 and later.

See Also
- `cachedResponseForRequest:` (page 8)

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Declared In
NSURLCache.h

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Document Revision History

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

Date	Notes
2008-03-11	Updated discussion for the -sharedURLCache method.
2006-05-23	First publication of this content as a separate document.

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