NSURLRequest Class Reference

Cocoa > Networking

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NSURLRequest Class Reference

Inherits from	NSObject
Conforms to	NSCoding NSCopying NSMutableCopying 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	NSURLRequest.h
Related sample code	URL CacheInfo

Overview

`NSURLRequest` objects represent a URL load request in a manner independent of protocol and URL scheme.

NSURLRequest encapsulates two basic data elements of a load request: the URL to load, and the policy to use when consulting the URL content cache made available by the implementation.

NSURLRequest is designed to be extended to support additional protocols by adding categories that access protocol specific values from a property object using NSURLProtocol's `propertyForKey:inRequest:` and `setProperty:forKey:inRequest:` methods.

The mutable subclass of NSURLRequest is NSMutableURLRequest.

Adopted Protocols

NSCopying
- `copyWithZone:`

NSMutableCopying
- `mutableCopyWithZone:`

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Tasks

Creating Requests

+ `requestWithURL:` (page 7)
  Creates and returns a URL request for a specified URL with default cache policy and timeout value.

- `initWithURL:` (page 10)
  Returns a URL request for a specified URL with default cache policy and timeout value.

+ `requestWithURL:cachePolicy:timeoutInterval:` (page 7)
  Creates and returns an initialized URL request with specified values.

- `initWithURL:cachePolicy:timeoutInterval:` (page 10)
  Returns an initialized URL request with specified values.

Getting Request Properties

- `cachePolicy` (page 8)
  Returns the receiver's cache policy.

- `mainDocumentURL` (page 11)
  Returns the main document URL associated with the request.

- `timeoutInterval` (page 11)
  Returns the receiver's timeout interval, in seconds.

- `URL` (page 12)
  Returns the request's URL.

Getting HTTP Request Properties

- `allHTTPHeaderFields` (page 8)
  Returns a dictionary containing all the receiver's HTTP header fields.

- `HTTPBody` (page 8)
  Returns the receiver's HTTP body data.

- `HTTPBodyStream` (page 9)
  Returns the receiver's HTTP body stream.

- `HTTPMethod` (page 9)
  Returns the receiver's HTTP request method.

- `HTTPShouldHandleCookies` (page 10)
  Returns whether the default cookie handling will be used for this request.

- `valueForHTTPHeaderField:` (page 12)
  Returns the value of the specified HTTP header field.

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Class Methods

requestWithURL:

Creates and returns a URL request for a specified URL with default cache policy and timeout value.

```
+ (id)requestWithURL:(NSURL *)theURL
```

Parameters

theURL

The URL for the new request.

Return Value

The newly created URL request.

Discussion

The default cache policy is `NSURLRequestUseProtocolCachePolicy` and the default timeout interval is 60 seconds.

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

`+ requestWithURL:cachePolicy:timeoutInterval:` (page 7)

Declared In

`NSURLRequest.h`

requestWithURL:cachePolicy:timeoutInterval:

Creates and returns an initialized URL request with specified values.

```
+ (id)requestWithURL:(NSURL *)theURL cachePolicy:(NSURLRequestCachePolicy)cachePolicy
    timeoutInterval:(NSTimeInterval)timeoutInterval
```

Parameters

theURL

The URL for the new request.

cachePolicy

The cache policy for the new request.

timeoutInterval

The timeout interval for the new request, in seconds.

Return Value

The newly created URL request.

Availability

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

Available in Mac OS X v10.2.7 and later.

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See Also
`- initWithURL:cachePolicy:timeoutInterval:` (page 10)

Related Sample Code
URL CacheInfo

Declared In
`NSURLRequest.h`

Instance Methods

allHTTPHeaderFields

Returns a dictionary containing all the receiver's HTTP header fields.

```
- (NSDictionary *)allHTTPHeaderFields
```

Return Value
A dictionary containing all the receiver's HTTP header fields.

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
`- valueForHTTPHeaderField:` (page 12)

Declared In
`NSURLRequest.h`

cachePolicy

Returns the receiver's cache policy.

```
- (NSURLRequestCachePolicy)cachePolicy
```

Return Value
The receiver's cache policy.

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

Declared In
`NSURLRequest.h`

HTTPBody

Returns the receiver's HTTP body data.

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```
- (NSData *)HTTPBody
```

Return Value
The receiver's HTTP body data.

Discussion
This data is sent as the message body of a request, as in an HTTP `POST` request.

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

Declared In
`NSURLRequest.h`

HTTPBodyStream

Returns the receiver's HTTP body stream.

```
- (NSInputStream *)HTTPBodyStream
```

Return Value
The receiver's HTTP body stream, or `nil` if it has not been set. The returned stream is for examination only, it is not safe to manipulate the stream in any way.

Discussion
The receiver will have either an HTTP body or an HTTP body stream, only one may be set for a request. A HTTP body stream is preserved when copying an NSURLRequest object, but is lost when a request is archived using the NSCoding protocol.

Availability
Available in Mac OS X v10.4 and later.

Declared In
`NSURLRequest.h`

HTTPMethod

Returns the receiver's HTTP request method.

```
- (NSString *)HTTPMethod
```

Return Value
The receiver's HTTP request method.

Discussion
The default HTTP method is "GET".

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

Declared In
`NSURLRequest.h`

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HTTPShouldHandleCookies

Returns whether the default cookie handling will be used for this request.

```
- (BOOL)HTTPShouldHandleCookies
```

Return Value
`YES` if the default cookie handling will be used for this request, `NO` otherwise.

Discussion
The default is `YES`.

Special Considerations

In Mac OS X v10.2 with Safari 1.0 the value set by this method is not respected by the framework.

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

Declared In
`NSURLRequest.h`

initWithURL:

Returns a URL request for a specified URL with default cache policy and timeout value.

```
- (id)initWithURL:(NSURL *)theURL
```

Parameters
theURL
The URL for the request.

Return Value
The initialized URL request.

Discussion
The default cache policy is `NSURLRequestUseProtocolCachePolicy` and the default timeout interval is 60 seconds.

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
`- initWithURL:cachePolicy:timeoutInterval:` (page 10)

Declared In
`NSURLRequest.h`

initWithURL:cachePolicy:timeoutInterval:

Returns an initialized URL request with specified values.

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```
- (id)initWithURL:(NSURL *)theURL cachePolicy:(NSURLRequestCachePolicy)cachePolicy
    timeoutInterval:(NSTimeInterval)timeoutInterval
```

Parameters

theURL

The URL for the request.

cachePolicy

The cache policy for the request.

timeoutInterval

The timeout interval for the request, in seconds.

Return Value
The initialized URL request.

Discussion
This is the designated initializer for `NSURLRequest`.

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
`- initWithURL:` (page 10)

Declared In
`NSURLRequest.h`

mainDocumentURL

Returns the main document URL associated with the request.

```
- (NSURL *)mainDocumentURL
```

Return Value
The main document URL associated with the request.

Discussion
This URL is used for the cookie “same domain as main document” policy.

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

Declared In
`NSURLRequest.h`

timeoutInterval

Returns the receiver’s timeout interval, in seconds.

```
- (NSTimeInterval)timeoutInterval
```


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Return Value
The receiver's timeout interval, in seconds.

Discussion
If during a connection attempt the request remains idle for longer than the timeout interval, the request is considered to have timed out.

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

Declared In
`NSURLRequest.h`

URL

Returns the request's URL.

```
- (NSURL *)URL
```

Return Value
The request's URL.

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

Declared In
`NSURLRequest.h`

valueForHTTPHeaderField:

Returns the value of the specified HTTP header field.

```
- (NSString *)valueForHTTPHeaderField:(NSString *)field
```

Parameters
field

The name of the header field whose value is to be returned. In keeping with the HTTP RFC, HTTP header field names are case-insensitive.

Return Value
The value associated with the header field *field*, or `nil` if there is no corresponding header field.

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

Declared In
`NSURLRequest.h`

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Constants

NSURLRequestCachePolicy

These constants are used to specify interaction with the cached responses.

```
enum
{
    NSURLRequestUseProtocolCachePolicy = 0,
    NSURLRequestReloadIgnoringLocalCacheData = 1,
    NSURLRequestReloadIgnoringLocalAndRemoteCacheData =4,
   NSURLRequestReloadIgnoringCacheData = NSURLRequestReloadIgnoringLocalCacheData,
    NSURLRequestReturnCacheDataElseLoad = 2,
    NSURLRequestReturnCacheDataDontLoad = 3,
    NSURLRequestReloadRevalidatingCacheData = 5
};
typedef NSUInteger NSURLRequestCachePolicy;
```

Constants

`NSURLRequestUseProtocolCachePolicy`

Specifies that the caching logic defined in the protocol implementation, if any, is used for a particular URL load request. This is the default policy for URL load requests.

Available in Mac OS X v10.2 and later.

Declared in `NSURLRequest.h`.

`NSURLRequestReloadIgnoringLocalCacheData`

Specifies that the data for the URL load should be loaded from the originating source. No existing cache data should be used to satisfy a URL load request.

Available in Mac OS X v10.5 and later.

Declared in `NSURLRequest.h`.

`NSURLRequestReloadIgnoringLocalAndRemoteCacheData`

Specifies that not only should the local cache data be ignored, but that proxies and other intermediates should be instructed to disregard their caches so far as the protocol allows.

Available in Mac OS X v10.5 and later.

Declared in `NSURLRequest.h`.

`NSURLRequestReloadIgnoringCacheData`

Replaced by `NSURLRequestReloadIgnoringLocalCacheData` (page 13).

Available in Mac OS X v10.2 and later.

Declared in `NSURLRequest.h`.

`NSURLRequestReturnCacheDataElseLoad`

Specifies that the existing cached data should be used to satisfy the request, regardless of its age or expiration date. If there is no existing data in the cache corresponding the request, the data is loaded from the originating source.

Available in Mac OS X v10.2 and later.

Declared in `NSURLRequest.h`.

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`NSURLRequestReturnCacheDataDontLoad`

Specifies that the existing cache data should be used to satisfy a request, regardless of its age or expiration date. If there is no existing data in the cache corresponding to a URL load request, no attempt is made to load the data from the originating source, and the load is considered to have failed. This constant specifies a behavior that is similar to an "offline" mode.

Available in Mac OS X v10.2 and later.

Declared in `NSURLRequest.h`.

`NSURLRequestReloadRevalidatingCacheData`

Specifies that the existing cache data may be used provided the origin source confirms its validity, otherwise the URL is loaded from the origin source.

Available in Mac OS X v10.5 and later.

Declared in `NSURLRequest.h`.

Availability
Available in Mac OS X v10.2 and later.

Declared In
`NSURLRequest.h`

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Document Revision History

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

Date	Notes
2007-04-01	Updated for Mac OS X v10.5.
2006-06-28	Updated the Constants section to conform to reference consistency guidelines.
2006-05-23	First publication of this content as a separate document.

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