
NSRecursiveLock Class Reference

[Cocoa](#) > [Process Management](#)



2007-04-30



Apple Inc.
© 2007 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, and Mac OS are trademarks of Apple Inc., registered in the United States and other countries.

iPhone is a trademark of Apple Inc.

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

NSRecursiveLock Class Reference 5

Overview	5
Adopted Protocols	5
Tasks	6
Acquiring a Lock	6
Naming the Lock	6
Instance Methods	6
lockBeforeDate:	6
name	6
setName:	7
tryLock	7

Document Revision History 9

Index 11

NSRecursiveLock Class Reference

Inherits from	NSObject
Conforms to	NSLocking NSObject (NSObject)
Framework	/System/Library/Frameworks/Foundation.framework
Availability	Available in Mac OS X v10.0 and later.
Companion guide	Threading Programming Guide
Declared in	NSLock.h
Related sample code	CIVideoDemoGL LSMSmartCategorizer QTCoreImage101 QTCoreVideo201 QTCoreVideo301

Overview

`NSRecursiveLock` defines a lock that may be acquired multiple times by the same thread without causing a deadlock, a situation where a thread is permanently blocked waiting for itself to relinquish a lock. While the locking thread has one or more locks, all other threads are prevented from accessing the code protected by the lock.

Adopted Protocols

- NSLocking
- lock
 - unlock

Tasks

Acquiring a Lock

- [lockBeforeDate:](#) (page 6)
Attempts to acquire a lock before a given date.
- [tryLock](#) (page 7)
Attempts to acquire a lock, and immediately returns a Boolean value that indicates whether the attempt was successful.

Naming the Lock

- [setName:](#) (page 7)
Assigns a name to the receiver
- [name](#) (page 6)
Returns the name associated with the receiver.

Instance Methods

lockBeforeDate:

Attempts to acquire a lock before a given date.

```
- (BOOL)lockBeforeDate:(NSDate *)limit
```

Parameters

limit

The time before which the lock should be acquired.

Return Value

YES if the lock is acquired before *limit*, otherwise NO.

Discussion

The thread is blocked until the receiver acquires the lock or *limit* is reached.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSLock.h

name

Returns the name associated with the receiver.

```
- (NSString *)name
```

Return Value

The name of the receiver.

Availability

Available in Mac OS X v10.5 and later.

See Also

- [setName:](#) (page 7)

Declared In

NSLock.h

setName:

Assigns a name to the receiver

```
- (void)setName:(NSString *)newName
```

Parameters

newName

The new name for the receiver. This method makes a copy of the specified string.

Discussion

You can use a name string to identify a lock within your code. Cocoa also uses this name as part of any error descriptions involving the receiver.

Availability

Available in Mac OS X v10.5 and later.

See Also

- [name](#) (page 6)

Declared In

NSLock.h

tryLock

Attempts to acquire a lock, and immediately returns a Boolean value that indicates whether the attempt was successful.

```
- (BOOL)tryLock
```

Return Value

YES if successful, otherwise NO.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSLock.h

Document Revision History

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

Date	Notes
2007-04-30	Updated for Mac OS X v10.5.
2006-05-23	First publication of this content as a separate document.

REVISION HISTORY

Document Revision History

Index

L

lockBeforeDate: [instance method 6](#)

N

name [instance method 6](#)

S

setName: [instance method 7](#)

T

tryLock [instance method 7](#)