
NSCoding Protocol Reference

[Cocoa > Data Management](#)



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NSCoding Protocol Reference

Adopted by	Various Cocoa classes
Framework	/System/Library/Frameworks/Foundation.framework
Availability	Available in Mac OS X v10.0 and later.
Companion guide	Archives and Serializations Programming Guide for Cocoa
Declared in	NSObject.h
Related sample code	Squiggles

Overview

The `NSCoding` protocol declares the two methods that a class must implement so that instances of that class can be encoded and decoded. This capability provides the basis for archiving (where objects and other structures are stored on disk) and distribution (where objects are copied to different address spaces).

In keeping with object-oriented design principles, an object being encoded or decoded is responsible for encoding and decoding its instance variables. A coder instructs the object to do so by invoking `encodeWithCoder:` (page 6) or `initWithCoder:` (page 6). `encodeWithCoder:` (page 6) instructs the object to encode its instance variables to the coder provided; an object can receive this method any number of times. `initWithCoder:` (page 6) instructs the object to initialize itself from data in the coder provided; as such, it replaces any other initialization method and is sent only once per object. Any object class that should be codable must adopt the `NSCoding` protocol and implement its methods.

It is important to consider the possible types of archiving that a coder supports. On Mac OS X version 10.2 and later, keyed archiving is preferred. You may, however, need to support classic archiving. For details, see *Archives and Serializations Programming Guide for Cocoa*.

Tasks

Initializing with a Coder

- `initWithCoder:` (page 6)
Returns an object initialized from data in a given unarchiver.

Encoding with a Coder

- [encodeWithCoder:](#) (page 6)
Encodes the receiver using a given archiver.

Instance Methods

encodeWithCoder:

Encodes the receiver using a given archiver.

```
- (void)encodeWithCoder:(NSCoder *)encoder
```

Parameters

encoder

An archiver object.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSObject.h

initWithCoder:

Returns an object initialized from data in a given unarchiver.

```
- (id)initWithCoder:(NSCoder *)decoder
```

Parameters

decoder

An unarchiver object.

Return Value

self, initialized using the data in *decoder*.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSObject.h

Document Revision History

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

Date	Notes
2006-05-23	First publication of this content as a separate document.

REVISION HISTORY

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E

encodeWithCoder: [protocol instance method 6](#)

I

initWithCoder: [protocol instance method 6](#)