
NSWhoseSpecifier Class Reference

[Cocoa](#) > [Scripting & Automation](#)



2006-06-28



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Contents

NSWhoseSpecifier Class Reference 5

Overview 5

Tasks 6

 Initializing a Whose Specifier 6

 Accessing Information About a Whose Specifier 6

Instance Methods 6

 endSubelementIdentifier 6

 endSubelementIndex 7

 initWithContainerClassDescription:containerSpecifier:key:test: 7

 setEndSubelementIdentifier: 8

 setEndSubelementIndex: 8

 setStartSubelementIdentifier: 8

 setStartSubelementIndex: 9

 setTest: 9

 startSubelementIdentifier 9

 startSubelementIndex 10

 test 10

Constants 10

 NSWhoseSubelementIdentifier 10

Document Revision History 13

Index 15

NSWhoseSpecifier Class Reference

Inherits from	NSScriptObjectSpecifier : NSObject
Conforms to	NSCoding (NSScriptObjectSpecifier) NSObject (NSObject)
Framework	/System/Library/Frameworks/Foundation.framework
Availability	Available in Mac OS X v10.0 and later.
Companion guide	Cocoa Scripting Guide
Declared in	NSScriptObjectSpecifiers.h

Overview

`NSWhoseSpecifier` specifies every object in a collection (or every element in a container) that matches the condition defined by a single Boolean expression or multiple Boolean expressions connected by logical operators. `NSWhoseSpecifier` is unique among object specifiers in that its top-level container is typically not the application object but an evaluated object specifier involved in the tested-for condition. An `NSWhoseSpecifier` object encapsulates a “test” object for defining this condition. A test object is instantiated from a subclass of the abstract `NSScriptWhoseTest` class, whose one declared method is `isTrue`. See “Boolean Expressions and Logical Operations” in `NSScriptObjectSpecifier` and the descriptions in `NSComparisonMethods` and `NSScriptingComparisonMethods` for more information.

The set of elements specified by an `NSWhoseSpecifier` object can be a subset of those that pass the `NSWhoseSpecifier` object's test. This subset is specified by the various sub-element properties of the `NSWhoseSpecifier` object. Consider as an example the specifier paragraphs where color of third word is blue. This would be represented by an `NSWhoseSpecifier` object that uses a test specifier and another object specifier to identify a subset of the objects with the specified property. That is, the specifier's property is paragraphs; the test specifier is an index specifier with property words and index 3; and the qualifier is a key value qualifier for key color and value `[NSColor blueColor]`. The test object specifier (word at index 3) is evaluated for each object (paragraph) using that object as the container; the resulting objects (if any) are tested with the qualifier (color blue).

`NSWhoseSpecifier` is part of Cocoa's built-in script handling. You don't normally subclass it.

Tasks

Initializing a Whose Specifier

- [initWithContainerClassDescription:containerSpecifier:key:test:](#) (page 7)
Returns an `NSWhoseSpecifier` object initialized with the given attributes.

Accessing Information About a Whose Specifier

- [endSubelementIdentifier](#) (page 6)
Returns the end sub-element identifier for the receiver.
- [endSubelementIndex](#) (page 7)
Returns the index position of the last sub-element within the range of objects being tested that passes the receiver's test.
- [setEndSubelementIdentifier:](#) (page 8)
Sets the end sub-element identifier for the specifier to the value of a given sub-element.
- [setEndSubelementIndex:](#) (page 8)
Sets the index position of the last sub-element within the range of objects being tested that pass the specifier's test.
- [setStartSubelementIdentifier:](#) (page 8)
Sets the start sub-element identifier for the specifier.
- [setStartSubelementIndex:](#) (page 9)
Sets the index position of the first sub-element within the range of objects being tested that passes the specifier's test.
- [setTest:](#) (page 9)
Sets the test object that is encapsulated by the receiver.
- [startSubelementIdentifier](#) (page 9)
Returns the start sub-element identifier for the receiver.
- [startSubelementIndex](#) (page 10)
Returns the index position of the first sub-element within the range of objects being tested that pass the receiver's test.
- [test](#) (page 10)
Returns the test object encapsulated by the receiver.

Instance Methods

endSubelementIdentifier

Returns the end sub-element identifier for the receiver.

- `(NSWhoseSubelementIdentifier)endSubelementIdentifier`

Return Value

The end sub-element identifier for the receiver, or `NSNoSubElement` if there is none.

Availability

Available in Mac OS X v10.0 and later.

Declared In

`NSScriptObjectSpecifiers.h`

endSubelementIndex

Returns the index position of the last sub-element within the range of objects being tested that passes the receiver's test.

```
- (NSInteger)endSubelementIndex
```

Return Value

The index position of the last sub-element within the range of objects being tested that passes the receiver's test.

Availability

Available in Mac OS X v10.0 and later.

Declared In

`NSScriptObjectSpecifiers.h`

initWithContainerClassDescription:containerSpecifier:key:test:

Returns an `NSWhoseSpecifier` object initialized with the given attributes.

```
- (id)initWithContainerClassDescription:(NSScriptClassDescription *)classDescription
    containerSpecifier:(NSScriptObjectSpecifier *)specifier key:(NSString *)property
    test:(NSScriptWhoseTest *)test
```

Parameters

classDescription

Class description for the receiver's container object.

specifier

An object specifier for the receiver's container object.

property

The key for the property for which to test.

test

The test condition.

Return Value

An `NSWhoseSpecifier` object initialized with the given attributes.

Discussion

Invokes the super class's `initWithContainerClassDescription:containerSpecifier:key:` and sets the whose test condition to *test*.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSScriptObjectSpecifiers.h

setEndSubelementIdentifier:

Sets the end sub-element identifier for the specifier to the value of a given sub-element.

```
- (void)setEndSubelementIdentifier:(NSWhoseSubelementIdentifier)subelement
```

Parameters

subelement

The end sub-element for the receiver.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSScriptObjectSpecifiers.h

setEndSubelementIndex:

Sets the index position of the last sub-element within the range of objects being tested that pass the specifier's test.

```
- (void)setEndSubelementIndex:(NSInteger)index
```

Parameters

index

The index position of the end sub-element.

Discussion

Used only if the end sub-element identifier is `NSIndexSubelement`.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSScriptObjectSpecifiers.h

setStartSubelementIdentifier:

Sets the start sub-element identifier for the specifier.

```
- (void)setStartSubelementIdentifier:(NSWhoseSubelementIdentifier)subelement
```

Parameters

subelement

The start sub-element for the receiver.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSScriptObjectSpecifiers.h

setStartSubelementIndex:

Sets the index position of the first sub-element within the range of objects being tested that passes the specifier's test.

- (void)setStartSubelementIndex:(NSInteger)*index*

Parameters

index

The index position of the start sub-element.

Discussion

Used only if the start sub-element identifier is NSIndexSubelement.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSScriptObjectSpecifiers.h

setTest:

Sets the test object that is encapsulated by the receiver.

- (void)setTest:(NSScriptWhoseTest *)*test*

Parameters

test

The test object for the receiver.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSScriptObjectSpecifiers.h

startSubelementIdentifier

Returns the start sub-element identifier for the receiver.

- (NSWhoseSubelementIdentifier)startSubelementIdentifier

Return Value

The start sub-element identifier for the receiver.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSScriptObjectSpecifiers.h

startSubelementIndex

Returns the index position of the first sub-element within the range of objects being tested that pass the receiver's test.

```
- (NSInteger)startSubelementIndex
```

Return Value

The index position of the first sub-element within the range of objects being tested that pass the receiver's test.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSScriptObjectSpecifiers.h

test

Returns the test object encapsulated by the receiver.

```
- (NSScriptWhoseTest *)test
```

Return Value

The test object encapsulated by the receiver.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSScriptObjectSpecifiers.h

Constants

NSWhoseSubelementIdentifier

`NSWhoseSpecifier` uses these constants to specify sub-elements within the collection of objects being tested that pass the specifier's test.

```
typedef enum {
    NSIndexSubelement = 0,
    NSEverySubelement = 1,
    NSMiddleSubelement = 2,
    NSRandomSubelement = 3,
    NSNoSubelement = 4
} NSWhoseSubelementIdentifier;
```

Constants

NSIndexSubelement

An element at a given index that meets the specifier test.

Available in Mac OS X v10.0 and later.

Declared in `NSScriptObjectSpecifiers.h`.

NSEverySubelement

Every element that meets the specifier test.

Available in Mac OS X v10.0 and later.

Declared in `NSScriptObjectSpecifiers.h`.

NSMiddleSubelement

The middle element that meets the specifier test.

Available in Mac OS X v10.0 and later.

Declared in `NSScriptObjectSpecifiers.h`.

NSRandomSubelement

Any element that meets the specifier test.

Available in Mac OS X v10.0 and later.

Declared in `NSScriptObjectSpecifiers.h`.

NSNoSubelement

No sub-element met the specifier test. Valid only for specifying the end sub-element.; that is, there is no end, so consider all elements.

Available in Mac OS X v10.0 and later.

Declared in `NSScriptObjectSpecifiers.h`.**Discussion**

These constants are used by [startSubelementIdentifier](#) (page 9), [setStartSubelementIdentifier:](#) (page 8), [endSubelementIdentifier](#) (page 6), and [setEndSubelementIdentifier:](#) (page 8).

Availability

Available in Mac OS X v10.0 and later.

Declared In`NSScriptObjectSpecifiers.h`

Document Revision History

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

Date	Notes
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.

REVISION HISTORY

Document Revision History

Index

E

endSubelementIdentifier **instance method** [6](#)
endSubelementIndex **instance method** [7](#)

I

initWithContainerClassDescription:
 containerSpecifier:key:test: **instance method**
 [7](#)

N

NSEverySubelement **constant** [11](#)
NSIndexSubelement **constant** [11](#)
NSMiddleSubelement **constant** [11](#)
NSNoSubelement **constant** [11](#)
NSRandomSubelement **constant** [11](#)
NSWhoseSubelementIdentifier **data type** [10](#)

S

setEndSubelementIdentifier: **instance method** [8](#)
setEndSubelementIndex: **instance method** [8](#)
setStartSubelementIdentifier: **instance method**
 [8](#)
setStartSubelementIndex: **instance method** [9](#)
setTest: **instance method** [9](#)
startSubelementIdentifier **instance method** [9](#)
startSubelementIndex **instance method** [10](#)

T

test **instance method** [10](#)