
NSComparisonPredicate Class Reference

[Cocoa > Data Management](#)



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NSComparisonPredicate Class Reference

Inherits from	NSPredicate : NSObject
Conforms to	NSCoding (NSPredicate) NSCopying (NSPredicate) NSObject (NSObject)
Framework	/System/Library/Frameworks/Foundation.framework
Availability	Available in Mac OS X v10.4 and later.
Companion guide	Predicate Programming Guide
Declared in	NSComparisonPredicate.h
Related sample code	CoreRecipes iSpend PredicateEditorSample

Overview

`NSComparisonPredicate` is a subclass of `NSPredicate` used to compare expressions.

Comparison predicates are predicates used to compare the results of two expressions. Comparison predicates take an operator, a left expression, and a right expression, and return as a `BOOL` the result of invoking the operator with the results of evaluating the expressions. Expressions are represented by instances of the `NSExpression` class.

Tasks

Constructors

- + `predicateWithLeftExpression:rightExpression:customSelector:` (page 6)
Returns a new predicate formed by combining the left and right expressions using a given selector.
- + `predicateWithLeftExpression:rightExpression:modifier:type:options:` (page 7)
Creates and returns a predicate of a given type formed by combining given left and right expressions using a given modifier and options.
- `initWithLeftExpression:rightExpression:customSelector:` (page 8)
Initializes a predicate formed by combining given left and right expressions using a given selector.

- [initWithLeftExpression:rightExpression:modifier:type:options:](#) (page 9)
Initializes a predicate to a given type formed by combining given left and right expressions using a given modifier and options.

Getting Information About a Comparison Predicate

- [comparisonPredicateModifier](#) (page 7)
Returns the comparison predicate modifier for the receiver.
- [customSelector](#) (page 8)
Returns the selector for the receiver.
- [leftExpression](#) (page 9)
Returns the left expression for the receiver.
- [options](#) (page 9)
Returns the options that are set for the receiver.
- [predicateOperatorType](#) (page 10)
Returns the predicate type for the receiver.
- [rightExpression](#) (page 10)
Returns the right expression for the receiver.

Class Methods

predicateWithLeftExpression:rightExpression:customSelector:

Returns a new predicate formed by combining the left and right expressions using a given selector.

```
+ (NSPredicate *)predicateWithLeftExpression:(NSExpression *)lhs
    rightExpression:(NSExpression *)rhs customSelector:(SEL)selector
```

Parameters

lhs

The left hand side expression.

rhs

The right hand side expression.

selector

The selector to use for comparison. The method defined by the selector must take a single argument and return a BOOL value.

Return Value

A new predicate formed by combining the left and right expressions using *selector*.

Availability

Available in Mac OS X v10.4 and later.

Declared In

NSComparisonPredicate.h

predicateWithLeftExpression:rightExpression:modifier:type:options:

Creates and returns a predicate of a given type formed by combining given left and right expressions using a given modifier and options.

```
+ (NSPredicate *)predicateWithLeftExpression:(NSEExpression *)lhs
    rightExpression:(NSEExpression *)rhs
    modifier:(NSComparisonPredicateModifier)modifier
    type:(NSPredicateOperatorType)type options:(NSUInteger)options
```

Parameters*lhs*

The left hand expression.

rhs

The right hand expression.

modifier

The modifier to apply.

type

The predicate operator type.

options

The options to apply (see [NSComparisonPredicate Options](#) (page 11)).

Return Value

A new predicate of type *type* formed by combining the given left and right expressions using the *modifier* and *options*.

Availability

Available in Mac OS X v10.4 and later.

Related Sample Code

iSpend

PredicateEditorSample

Declared In

NSComparisonPredicate.h

Instance Methods

comparisonPredicateModifier

Returns the comparison predicate modifier for the receiver.

```
- (NSComparisonPredicateModifier)comparisonPredicateModifier
```

Return Value

The comparison predicate modifier for the receiver.

Discussion

The default value is [NSDirectPredicateModifier](#) (page 11).

Availability

Available in Mac OS X v10.4 and later.

Related Sample Code

PredicateEditorSample

Declared In

NSComparisonPredicate.h

customSelector

Returns the selector for the receiver.

- (SEL)customSelector

Return Value

The selector for the receiver, or NULL if there is none.

Availability

Available in Mac OS X v10.4 and later.

Declared In

NSComparisonPredicate.h

initWithLeftExpression:rightExpression:customSelector:

Initializes a predicate formed by combining given left and right expressions using a given selector.

```
- (id)initWithLeftExpression:(NSEExpression *)lhs rightExpression:(NSEExpression *)rhs customSelector:(SEL)selector
```

Parameters

lhs

The left hand expression.

rhs

The right hand expression.

selector

The selector to use. The method defined by the selector must take a single argument and return a BOOL value.

Return Value

The receiver, initialized by combining the left and right expressions using *selector*.

Availability

Available in Mac OS X v10.4 and later.

Declared In

NSComparisonPredicate.h

initWithLeftExpression:rightExpression:modifier:type:options:

Initializes a predicate to a given type formed by combining given left and right expressions using a given modifier and options.

```
- (id)initWithLeftExpression:(NSEExpression *)lhs rightExpression:(NSEExpression *)rhs modifier:(NSComparisonPredicateModifier)modifier type:(NSPredicateOperatorType)type options:(NSUInteger)options
```

Parameters*lhs*

The left hand expression.

rhs

The right hand expression.

modifier

The modifier to apply.

type

The predicate operator type.

options

The options to apply (see [NSComparisonPredicate Options](#) (page 11)).

Return Value

The receiver, initialized to a predicate of type *type* formed by combining the left and right expressions using the *modifier* and *options*.

Availability

Available in Mac OS X v10.4 and later.

Declared In

NSComparisonPredicate.h

leftExpression

Returns the left expression for the receiver.

```
- (NSEExpression *)leftExpression
```

Return Value

The left expression for the receiver, or `nil` if there is none.

Availability

Available in Mac OS X v10.4 and later.

Related Sample Code

PredicateEditorSample

Declared In

NSComparisonPredicate.h

options

Returns the options that are set for the receiver.

- (NSUInteger)options

Return Value

The options that are set for the receiver.

Availability

Available in Mac OS X v10.4 and later.

Related Sample Code

PredicateEditorSample

Declared In

NSComparisonPredicate.h

predicateOperatorType

Returns the predicate type for the receiver.

- (NSPredicateOperatorType)predicateOperatorType

Return Value

The predicate type for the receiver.

Availability

Available in Mac OS X v10.4 and later.

Related Sample Code

CoreRecipes

PredicateEditorSample

Declared In

NSComparisonPredicate.h

rightExpression

Returns the right expression for the receiver.

- (NSExpression *)rightExpression

Return Value

The right expression for the receiver, or nil if there is none.

Availability

Available in Mac OS X v10.4 and later.

Related Sample Code

PredicateEditorSample

Declared In

NSComparisonPredicate.h

Constants

NSComparisonPredicateModifier

These constants describe the possible types of modifier for `NSComparisonPredicate`.

```
typedef enum {
    NSDirectPredicateModifier = 0,
    NSAllPredicateModifier,
    NSAnyPredicateModifier,
} NSComparisonPredicateModifier;
```

Constants

`NSDirectPredicateModifier`

A predicate to compare directly the left and right hand sides.

Available in Mac OS X v10.4 and later.

Declared in `NSComparisonPredicate.h`.

`NSAllPredicateModifier`

A predicate to compare all entries in the destination of a to-many relationship.

The left hand side must be a collection. The corresponding predicate compares each value in the left hand side with the right hand side, and returns `NO` when it finds the first mismatch—or `YES` if all match.

Available in Mac OS X v10.4 and later.

Declared in `NSComparisonPredicate.h`.

`NSAnyPredicateModifier`

A predicate to match with any entry in the destination of a to-many relationship.

The left hand side must be a collection. The corresponding predicate compares each value in the left hand side against the right hand side and returns `YES` when it finds the first match—or `NO` if no match is found.

Available in Mac OS X v10.4 and later.

Declared in `NSComparisonPredicate.h`.

Declared In

`NSComparisonPredicate.h`

NSComparisonPredicate Options

These constants describe the possible types of string comparison for `NSComparisonPredicate`.

```
enum {
    NSCaseInsensitivePredicateOption = 0x01,
    NSDiacriticInsensitivePredicateOption = 0x02,
};
```

Constants

NSCaseInsensitivePredicateOption

A case-insensitive predicate.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSDiacriticInsensitivePredicateOption

A diacritic-insensitive predicate.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

Declared In

NSComparisonPredicate.h

NSPredicateOperatorType

Defines the type of comparison for NSComparisonPredicate.

```
typedef enum {
    NSLessThanPredicateOperatorType = 0,
    NSLessThanOrEqualToPredicateOperatorType,
    NSGreaterThanPredicateOperatorType,
    NSGreaterThanOrEqualToPredicateOperatorType,
    NSEqualToPredicateOperatorType,
    NSNotEqualToPredicateOperatorType,
    NSMatchesPredicateOperatorType,
    NSLikePredicateOperatorType,
    NSBeginsWithPredicateOperatorType,
    NSEndsWithPredicateOperatorType,
    NSInPredicateOperatorType,
    NSCustomSelectorPredicateOperatorType,
    NSContainsPredicateOperatorType,
    NSBetweenPredicateOperatorType
} NSPredicateOperatorType;
```

Constants

NSLessThanPredicateOperatorType

A less-than predicate.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSLessThanOrEqualToPredicateOperatorType

A less-than-or-equal-to predicate.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSGreaterThanPredicateOperatorType

A greater-than predicate.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSGreaterThanOrEqualToPredicateOperatorType

A greater-than-or-equal-to predicate.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSEqualToPredicateOperatorType

An equal-to predicate.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSNotEqualToPredicateOperatorType

A not-equal-to predicate.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSMatchesPredicateOperatorType

A full regular expression matching predicate.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSLikePredicateOperatorType

A simple subset of the matches predicate, similar in behavior to SQL LIKE.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSBeginsWithPredicateOperatorType

A begins-with predicate.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSEndsWithPredicateOperatorType

An ends-with predicate.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSInPredicateOperatorType

A predicate to determine if the left hand side is in the right hand side.

For strings, returns YES if the left hand side is a substring of the right hand side . For collections, returns YES if the left hand side is in the right hand side .

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSCustomSelectorPredicateOperatorType

Predicate that uses a custom selector that takes a single argument and returns a BOOL value.

The selector is invoked on the left hand side with the right hand side.

Available in Mac OS X v10.4 and later.

Declared in NSComparisonPredicate.h.

NSContainsPredicateOperatorType

A predicate to determine if the left hand side contains the right hand side.

Returns YES if [lhs contains rhs]; the left hand side must be an NSExpression object that evaluates to a collection

Available in Mac OS X v10.5 and later.

Declared in NSComparisonPredicate.h.

NSBetweenPredicateOperatorType

A predicate to determine if the right hand side lies between bounds specified by the left hand side.

Returns YES if [lhs between rhs]; the right hand side must be an array in which the first element sets the lower bound and the second element the upper, inclusive. Comparison is performed using compare: or the class-appropriate equivalent.

Available in Mac OS X v10.5 and later.

Declared in NSComparisonPredicate.h.

Declared In

NSComparisonPredicate.h

Document Revision History

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

Date	Notes
2007-04-30	Corrected minor typographical error.
Leopard WWDC	Included new constants for Mac OS X v10.5.
2006-05-23	First publication of this content as a separate document.

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