
CFMutableCharacterSet Reference

Core Foundation



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Contents

CFMutableCharacterSet Reference 5

Overview	5
Functions by Task	5
Creating a Mutable Character Set	5
Adding Characters	5
Removing Characters	6
Logical Operations	6
Functions	6
CFCharacterSetAddCharactersInRange	6
CFCharacterSetAddCharactersInString	7
CFCharacterSetCreateMutable	7
CFCharacterSetCreateMutableCopy	7
CFCharacterSetIntersect	8
CFCharacterSetInvert	8
CFCharacterSetRemoveCharactersInRange	9
CFCharacterSetRemoveCharactersInString	9
CFCharacterSetUnion	10
Data Types	10
CFMutableCharacterSetRef	10

Document Revision History 11

Index 13

CFMutableCharacterSet Reference

Derived From:	CFCharacterSet : CType
Framework:	CoreFoundation/CoreFoundation.h
Companion guide	Strings Programming Guide for Core Foundation
Declared in	CFCharacterSet.h

Overview

CFMutableCharacterSet manages dynamic character sets. The basic interface for managing character sets is provided by CFCharacterSet. CFMutableCharacterSet adds functions to modify the contents of a character set.

You create a mutable character set object using either the [CFCharacterSetCreateMutable](#) (page 7) or [CFCharacterSetCreateMutableCopy](#) (page 7) function.

CFMutableCharacterSet is “toll-free bridged” with its Cocoa Foundation counterpart, NSMutableCharacterSet. This means that the Core Foundation type is interchangeable in function or method calls with the bridged Foundation object. Therefore, in a method where you see an NSMutableCharacterSet * parameter, you can pass in a CFMutableCharacterSetRef, and in a function where you see a CFMutableCharacterSetRef parameter, you can pass in an NSMutableCharacterSet instance. This capability also applies to concrete subclasses of NSMutableCharacterSet. See Interchangeable Data Types for more information on toll-free bridging.

Functions by Task

Creating a Mutable Character Set

[CFCharacterSetCreateMutable](#) (page 7)
Creates a new empty mutable character set.

[CFCharacterSetCreateMutableCopy](#) (page 7)
Creates a new mutable character set with the values from another character set.

Adding Characters

[CFCharacterSetAddCharactersInRange](#) (page 6)
Adds a given range to a character set.

[CFCharacterSetAddCharactersInRange](#) (page 7)

Adds the characters in a given string to a character set.

Removing Characters

[CFCharacterSetRemoveCharactersInRange](#) (page 9)

Removes a given range of Unicode characters from a character set.

[CFCharacterSetRemoveCharactersInString](#) (page 9)

Removes the characters in a given string from a character set.

Logical Operations

[CFCharacterSetIntersect](#) (page 8)

Forms an intersection of two character sets.

[CFCharacterSetInvert](#) (page 8)

Inverts the content of a given character set.

[CFCharacterSetUnion](#) (page 10)

Forms the union of two character sets.

Functions

CFCharacterSetAddCharactersInRange

Adds a given range to a character set.

```
void CFCharacterSetAddCharactersInRange (
    CFMutableCharacterSetRef theSet,
    CFRange theRange
);
```

Parameters

theSet

The character set to modify.

theRange

The range to add to the character set. The range is specified in 32-bits in UTF-32 format, and must lie within the valid Unicode character range (from 0x00000 to 0x10FFFF).

Availability

Available in CarbonLib v1.0 and later.

Available in Mac OS X v10.0 and later.

Declared In

CFCharacterSet.h

CFCharacterSetAddCharactersInString

Adds the characters in a given string to a character set.

```
void CFCharacterSetAddCharactersInString (
    CFMutableCharacterSetRef theSet,
    CFStringRef theString
);
```

Parameters

theSet

The character set to modify.

theString

A string containing the characters to add to *theSet*.

Availability

Available in CarbonLib v1.0 and later.

Available in Mac OS X v10.0 and later.

Declared In

CFCharacterSet.h

CFCharacterSetCreateMutable

Creates a new empty mutable character set.

```
CFMutableCharacterSetRef CFCharacterSetCreateMutable (
    CFAllocatorRef alloc
);
```

Parameters

alloc

The allocator to use to allocate memory for the new object. Pass `NULL` or `kCFAllocatorDefault` to use the current default allocator.

Return Value

A new empty mutable character set. Ownership follows the Create Rule.

Availability

Available in CarbonLib v1.0 and later.

Available in Mac OS X v10.0 and later.

Declared In

CFCharacterSet.h

CFCharacterSetCreateMutableCopy

Creates a new mutable character set with the values from another character set.

```
CFMutableCharacterSetRef CFCharacterSetCreateMutableCopy (
    CFAllocatorRef alloc,
    CFCharacterSetRef theSet
);
```

Parameters*alloc*

The allocator to use to allocate memory for the new object. Pass `NULL` or `kCFAllocatorDefault` to use the current default allocator.

theSet

The character set to copy.

Return Value

A new mutable character set containing the same characters as *theSet*. Ownership follows the Create Rule.

Availability

Available in CarbonLib v1.0 and later.

Available in Mac OS X v10.0 and later.

Declared In

CFCharacterSet.h

CFCharacterSetIntersect

Forms an intersection of two character sets.

```
void CFCharacterSetIntersect (
    CFMutableCharacterSetRef theSet,
    CFCharacterSetRef theOtherSet
);
```

Parameters*theSet*

The source character set, modified by intersection with *theOtherSet*.

theOtherSet

The character set with which the intersection is formed.

Availability

Available in CarbonLib v1.0 and later.

Available in Mac OS X v10.0 and later.

Declared In

CFCharacterSet.h

CFCharacterSetInvert

Inverts the content of a given character set.


```
void CFCharacterSetInvert (
    CFMutableCharacterSetRef theSet
);
```

Parameters*theSet*

The character set to invert.

Availability

Available in CarbonLib v1.0 and later.

Available in Mac OS X v10.0 and later.

Declared In

CFCharacterSet.h

CFCharacterSetRemoveCharactersInRange

Removes a given range of Unicode characters from a character set.

```
void CFCharacterSetRemoveCharactersInRange (
    CFMutableCharacterSetRef theSet,
    CFRange theRange
);
```

Parameters*theSet*

The character set to modify.

theRange

The range to remove from the character set. The range is specified in 32-bits in UTF-32 format, and must lie within the valid Unicode character range (from 0x00000 to 0x10FFFF).

Availability

Available in CarbonLib v1.0 and later.

Available in Mac OS X v10.0 and later.

Declared In

CFCharacterSet.h

CFCharacterSetRemoveCharactersInString

Removes the characters in a given string from a character set.

```
void CFCharacterSetRemoveCharactersInString (
    CFMutableCharacterSetRef theSet,
    CFStringRef theString
);
```

Parameters*theSet*

The character set to modify.

*theString*A string containing the characters to remove from *theSet*.

Availability

Available in CarbonLib v1.0 and later.

Available in Mac OS X v10.0 and later.

Declared In

CFCharacterSet.h

CFCharacterSetUnion

Forms the union of two character sets.

```
void CFCharacterSetUnion (
    CFMutableCharacterSetRef theSet,
    CFCharacterSetRef theOtherSet
);
```

Parameters

theSet

The source character set, modified by union with *theOtherSet*.

theOtherSet

The character set with which the union is formed.

Availability

Available in CarbonLib v1.0 and later.

Available in Mac OS X v10.0 and later.

Declared In

CFCharacterSet.h

Data Types

CFMutableCharacterSetRef

A reference to a mutable character set object.

```
typedef struct __CFCharacterSet *CFMutableCharacterSetRef;
```

Availability

Available in Mac OS X v10.0 and later.

Declared In

CFCharacterSet.h

Document Revision History

This table describes the changes to *CFMutableCharacterSet Reference*.

Date	Notes
2005-12-06	Updated the link to the companion document.
2005-08-11	Cosmetic changes to conform to documentation guidelines.
2003-01-01	First version of this document.

REVISION HISTORY

Document Revision History

Index

C

- CFCharacterSetAddCharactersInRange **function 6**
- CFCharacterSetAddCharactersInString **function 7**
- CFCharacterSetCreateMutable **function 7**
- CFCharacterSetCreateMutableCopy **function 7**
- CFCharacterSetIntersect **function 8**
- CFCharacterSetInvert **function 8**
- CFCharacterSetRemoveCharactersInRange **function 9**
- CFCharacterSetRemoveCharactersInString **function 9**
- CFCharacterSetUnion **function 10**
- CFMutableCharacterSetRef **data type 10**