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# ABSearchElement C Reference

[Apple Applications](#) > [Address Book](#)



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# ABSearchElement C Reference

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<b>Derived From:</b>	CType
<b>Framework:</b>	AddressBook/ABAddressBookC.h
<b>Companion guide</b>	Address Book Programming Guide for Mac OS X
<b>Declared in</b>	ABAddressBookC.h ABTypedefs.h

## Overview

ABSearchElement is used to specify a search query for records in the Address Book database.

You can create a simple query by creating an ABSearchElement object using either the `ABGroupCreateSearchElement` or `ABPersonCreateSearchElement` function for the corresponding record. Then you use the `ABAddressBookCopyArrayOfMatchingValues` function, passing the ABSearchElement as the parameter, to query the database.

ABSearchElement also provides a function for creating compound queries. Use the `ABSearchElementCreateWithConjunction` (page 5) function to combine two simple or complex queries into a compound query using either the `kABSearchAnd` or `kABSearchOr` conjunction constants.

Use the `ABSearchElementMatchesRecord` (page 6) function to test whether or not a specific record matches a query.

The ABSearchElement opaque type is “toll-free bridged” with its Objective-C counterpart. This means that the `ABSearchElementRef` type is interchangeable in function or method calls with instances of the ABSearchElement class.

## Functions

### ABSearchElementCreateWithConjunction

Returns a compound search element created by combining the search elements in an array with the given conjunction.

```
ABSearchElementRef ABSearchElementCreateWithConjunction (
    ABSearchConjunction conjunction,
    CFArrayRef childrenSearchElement
);
```

**Parameters**

*conjunction*

The conjunction used to join the search elements in *children*. Can be either `kABSearchAnd` or `kABSearchOr`.

*children*

An array containing `ABSearchElement` objects to be joined using *conjunction*. If `NULL` this function raises an exception.

**Return Value**

A new compound search element joining the search elements in *children* using *conjunction*. You are responsible for releasing this object.

**Availability**

Available in Mac OS X v10.2 and later.

**Declared In**

`ABAddressBookC.h`

## ABSearchElementMatchesRecord

Tests whether or not a record matches a search element.

```
bool ABSearchElementMatchesRecord (
    ABSearchElementRef searchElement,
    ABRecordRef record
);
```

**Parameters**

*searchElement*

The search element containing the query you wish to test *record* with.

*record*

The record you wish to test.

**Return Value**

Returns `true` if the *record* parameter satisfies the conditions in the *searchElement*, `false` otherwise.

**Availability**

Available in Mac OS X v10.2 and later.

**Declared In**

`ABAddressBookC.h`

## Data Types

### **ABSearchElementRef**

A reference to an ABSearchElement object.

```
typedef struct __ABSearchElementRef *ABSearchElementRef;
```

#### **Availability**

Available in Mac OS X v10.2 and later.

#### **Declared In**

ABAddressBookC.h

## Constants

### **ABSearchComparison**

Constants used to specify the type of comparison being made.

```
enum ABSearchComparison {
    kABEqual,
    kABNotEqual,
    kABLessThan,
    kABLessThanOrEqual,
    kABGreaterThan,
    kABGreaterThanOrEqual,
    kABEqualCaseInsensitive,
    kABContainsSubString,
    kABContainsSubStringCaseInsensitive,
    kABPrefixMatch,
    kABPrefixMatchCaseInsensitive,
    kABBitsInBitFieldMatch,
    kABDoesNotContainSubString,
    kABDoesNotContainSubStringCaseInsensitive,
    kABNotEqualCaseInsensitive,
    kABSuffixMatch,
    kABSuffixMatchCaseInsensitive,
    kABWithinIntervalAroundToday,
    kABWithinIntervalAroundTodayYearless,
    kABNotWithinIntervalAroundToday,
    kABNotWithinIntervalAroundTodayYearless,
    kABWithinIntervalFromToday,
    kABWithinIntervalFromTodayYearless,
    kABNotWithinIntervalFromToday,
    kABNotWithinIntervalFromTodayYearless
};
```

**Constants**

kABEqual

Search for elements that are equal to the value.

Available in Mac OS X v10.2 and later.

Declared in ABTypedefs.h.

kABNotEqual

Search for elements that are not equal to the value.

Available in Mac OS X v10.2 and later.

Declared in ABTypedefs.h.

kABNotEqualCaseInsensitive

Search for elements that are not equal to the value, ignoring case.

Available in Mac OS X v10.4 and later.

Declared in ABTypedefs.h.

kABLessThan

Search for elements that are less than the value.

Available in Mac OS X v10.2 and later.

Declared in ABTypedefs.h.

kABLessThanOrEqual

Search for elements that are less than or equal to the value.

Available in Mac OS X v10.2 and later.

Declared in ABTypedefs.h.



`kABGreaterThan`

Search for elements that are greater than the value.

Available in Mac OS X v10.2 and later.

Declared in `ABTypedefs.h`.

`kABGreaterThanOrEqual`

Search for elements that are greater than or equal to the value.

Available in Mac OS X v10.2 and later.

Declared in `ABTypedefs.h`.

`kABEqualCaseInsensitive`

Search for elements that are equal to the value, ignoring case.

Available in Mac OS X v10.2 and later.

Declared in `ABTypedefs.h`.

`kABContainsSubString`

Search for elements that contain the value.

Available in Mac OS X v10.2 and later.

Declared in `ABTypedefs.h`.

`kABContainsSubStringCaseInsensitive`

Search for elements that contain the value, ignoring case.

Available in Mac OS X v10.2 and later.

Declared in `ABTypedefs.h`.

`kABPrefixMatch`

Search for elements that begin with the value.

Available in Mac OS X v10.2 and later.

Declared in `ABTypedefs.h`.

`kABPrefixMatchCaseInsensitive`

Search for elements that begin with the value, ignoring case.

Available in Mac OS X v10.2 and later.

Declared in `ABTypedefs.h`.

`kABSuffixMatch`

Search for elements that end with the value.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

`kABSuffixMatchCaseInsensitive`

Search for elements that end with the value, ignoring case.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

`kABBitsInBitFieldMatch`

Search for elements that match the bits in `ABPersonFlags`.

Available in Mac OS X v10.3 and later.

Declared in `ABTypedefs.h`.

`kABDoesNotContainSubString`

Search for elements that do not contain the value.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

`kABDoesNotContainSubStringCaseInsensitive`

Search for elements that do not contain the value, ignoring case.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

`kABWithinIntervalAroundToday`

Search for elements that are within a time interval (in seconds) forward or backward from today.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

`kABWithinIntervalAroundTodayYearless`

Search for elements that are within a time interval (in seconds) forward or backward from this day in any year.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

`kABNotWithinIntervalAroundToday`

Search for elements that are *not* within a time interval (in seconds) forward or backward from today.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

`kABNotWithinIntervalAroundTodayYearless`

Search for elements that are *not* within a time interval (in seconds) forward or backward from this day in any year.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

`kABWithinIntervalFromToday`

Search for elements that are within a time interval (in seconds) forward from today.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

`kABWithinIntervalFromTodayYearless`

Search for elements that are within a time interval (in seconds) forward from this day in any year.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

`kABNotWithinIntervalFromToday`

Search for elements that are *not* within a time interval (in seconds) forward from today.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

`kABNotWithinIntervalFromTodayYearless`

Search for elements that are *not* within a time interval (in seconds) forward from this day in any year.

Available in Mac OS X v10.4 and later.

Declared in `ABTypedefs.h`.

### Discussion

These constants are used in a call to the `ABGroupCreateSearchElement` or `ABPersonCreateSearchElement` function to specify the type of comparison being made.

### Version Notes

## ABSearchConjunction

Constants used to create compound search elements.

```
enum ABSearchConjunction {
    kABSearchAnd = 0,
    kABSearchOr = 1
};
```

### Constants

`kABSearchAnd`

Join the search elements together with the AND operand.

Available in Mac OS X v10.2 and later.

Declared in `ABTypedefs.h`.

`kABSearchOr`

Join the search elements together with the OR operand.

Available in Mac OS X v10.2 and later.

Declared in `ABTypedefs.h`.

### Discussion

These constants are used to create compound search elements with the `ABSearchElementCreateWithConjunction` (page 5) function.

### Version Notes



# Document Revision History

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This table describes the changes to *ABSearchElement C Reference*.

Date	Notes
2005-04-29	Updated for accuracy and consistency.
2004-10-07	Revised for Mac OS X v10.4.
2003-08-20	Revised for Mac OS X v10.3.
2003-03-01	First version of the <i>ABSearchElement Reference for C</i> .

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