
ABGroup Reference for C

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Apple Inc.
1 Infinite Loop
Cupertino, CA 95014
408-996-1010

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ABGroup Reference for C

Derived From:	ABRecord : CType
Framework:	AddressBook/ABAddressBookC.h
Companion guide	Address Book Programming Guide for Mac OS X
Declared in	ABAddressBookC.h ABGlobals.h ABGlobalsC.h

Overview

The ABGroup opaque type supports the concept of a “group” containing one or more persons. People may belong to multiple groups, and groups may also belong to other groups as long as the relationship does not cause a circular reference. The only predefined property of a group is its name. However, similar to person records, you can add your own properties to group records. Groups not only help to organize person records, but allow you to create email distribution lists.

Use the [ABGroupCopyArrayOfAllMembers](#) (page 7) function to get all the members of a group, use the [ABGroupAddMember](#) (page 6) function to add people to a group, and the [ABGroupRemoveMember](#) (page 10) function to remove people from a group. Use the [ABGroupAddGroup](#) (page 6) function to create a subgroup.

Use the `ABAddressBook ABAddPropertiesAndTypes` function to add additional program-defined properties to group records. Because the Address Book database is stored as a property list, these program-defined properties may be ignored by other applications. Note that the Address Book database is accessed by multiple application and is not encrypted so your application should not store any sensitive information in the database.

You can also search for records matching a particular “query” you specify by creating an `ABSearchElement` object. Use the [ABGroupCreateSearchElement](#) (page 9) function to create an `ABSearchElement` object containing your query. Then use the `ABAddressBook ABCopyArrayOfMatchingRecords` function, passing the `ABSearchElement` as the argument, to query the database. See `ABSearchElement` for functions that create compound queries.

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

Functions

ABGroupAddGroup

Adds a subgroup to another group.

```
bool ABGroupAddGroup (
    ABGroupRef group,
    ABGroupRef groupToAdd
);
```

Parameters

group

The group you wish to add a subgroup to. If `NULL`, this function raises an exception.

groupToAdd

The subgroup you wish to add to *group*.

Return Value

Returns `true` if successful. If the *group* argument is already part of the receiver, this function does nothing and returns `false`. If adding the group would create a recursion, this function also does nothing and returns `false`. For example, if the group "Animal Lovers" is in "Dog Lovers," and you add "Dog Lovers" to "Animal Lovers," that would create a recursion, which this function won't allow.

Availability

Available in Mac OS X v10.2 and later.

Declared In

ABAddressBookC.h

ABGroupAddMember

Adds a person to a group.

```
bool ABGroupAddMember (
    ABGroupRef group,
    ABPersonRef personToAdd
);
```

Parameters

group

The group you wish to add *person* to.

person

The person to add to *group*. If *person* is `NULL`, this function raises an exception.

Return Value

`true` if successful, `false` otherwise. For example, if *person* is already in *group*, this function does nothing but returns `false`.

Availability

Available in Mac OS X v10.2 and later.

Declared In

ABAddressBookC.h

ABGroupCopyArrayOfAllMembers

Returns an array of persons in a group.

```
CFArrayRef ABGroupCopyArrayOfAllMembers (  
    ABGroupRef group  
);
```

Parameters

group

The ABGroup object whose members you wish to obtain.

Return Value

An array of ABPerson objects representing the people in *group*. If this group doesn't contain any people, this function returns an empty array. You are responsible for releasing this object.

Availability

Available in Mac OS X v10.2 and later.

Declared In

ABAddressBookC.h

ABGroupCopyArrayOfAllSubgroups

Returns an array containing a group's subgroups.

```
CFArrayRef ABGroupCopyArrayOfAllSubgroups (  
    ABGroupRef group  
);
```

Parameters

group

The ABGroup object whose subgroups you wish to obtain.

Return Value

An array of ABGroup objects representing the subgroups of *group*. If *group* doesn't contain any groups, this function returns an empty array. You are responsible for releasing this object.

Availability

Available in Mac OS X v10.2 and later.

Declared In

ABAddressBookC.h

ABGroupCopyDistributionIdentifier

Returns the distribution identifier for the given property and person.

```
CFStringRef ABGroupCopyDistributionIdentifier (
    ABGroupRef group,
    ABPersonRef person,
    CFStringRef property
);
```

Parameters

group

The group object that *person* belongs to.

person

A person object whose distribution identifier you want to obtain.

property

The name of a person’s multi-value list property whose distribution identifier you want to obtain.

Return Value

The distribution identifier for *person* and *property* if it was set, otherwise returns the property’s primary identifier. If either *person* or *property* are NULL, this function returns NULL. Also, returns NULL if *property* is not a multi-value list property. You are responsible for releasing this object.

Discussion

Use the [ABGroupSetDistributionIdentifier](#) (page 11) function to set the distribution identifier for a person’s multi-value list property.

Version Notes

Availability

Available in Mac OS X v10.2 and later.

Declared In

ABAddressBookC.h

ABGroupCopyParentGroups

Returns an array containing a group’s parents—the groups that a group belongs to.

```
CFArrayRef ABGroupCopyParentGroups (
    ABGroupRef group
);
```

Parameters

group

The group whose parent groups you wish to obtain.

Return Value

An array containing ABGroup objects representing the parents of *group*. If *group* doesn’t belong to any groups, this function returns an empty array. You are responsible for releasing this object.

Availability

Available in Mac OS X v10.2 and later.

Declared In

ABAddressBookC.h

ABGroupCreate

Returns a new ABGroup object.

```
ABGroupRef ABGroupCreate (
    void
);
```

Return Value

A newly created ABGroup object. You are responsible for releasing this object.

Availability

Available in Mac OS X v10.2 and later.

Declared In

ABAddressBookC.h

ABGroupCreateSearchElement

Creates an ABSearchElement object that specifies a query for ABGroup records.

```
ABSearchElementRef ABGroupCreateSearchElement (
    CFStringRef property,
    CFStringRef label,
    CFStringRef key,
    CTypeRef value,
    ABSearchComparison comparison
);
```

Parameters

property

The name of the property to search on. It cannot be NULL. For a full list of the properties, see [Group Properties](#) (page 12) and [Common Properties](#).

label

The label name for a multi-value list. If *property* does not have multiple values, pass NULL. If *property* does have multiple values, pass NULL to search all the values. By default, ABGroup records don't contain any multi-value list properties.

key

The key name for a dictionary. If *property* is not a dictionary, pass NULL. If *property* is a dictionary, pass NULL to search all keys. By default, ABGroup records don't contain any properties that are dictionaries.

value

The value you are searching for. It cannot be NULL.

comparison

Specifies the type of comparison to perform, such as `kABEqual` or `kABPrefixMatchCaseInsensitive`. For a full list, see [ABSearchComparison](#).

Return Value

A search element object that specifies a query according to the above parameters. You are responsible for releasing this object.

Discussion

Use the `ABAddressBook ABCopyArrayOfMatchingRecords` function to actually perform the query. Also, see [ABSearchElement](#) for more functions that create compound queries.

Availability

Available in Mac OS X 10.2 and later.

Declared In

ABAddressBookC.h

ABGroupRemoveGroup

Removes a subgroup from a group.

```
bool ABGroupRemoveGroup (
    ABGroupRef group,
    ABGroupRef groupToRemove
);
```

Parameters

group

If NULL, this function raises an exception.

groupToRemove

The subgroup to be removed from *group*.

Return Value

true if successful. If the *group* parameter is not a subgroup, this function does nothing and returns false.

Availability

Available in Mac OS X v10.2 and later.

Declared In

ABAddressBookC.h

ABGroupRemoveMember

Removes a person from a group.

```
bool ABGroupRemoveMember (
    ABGroupRef group,
    ABPersonRef personToRemove
);
```

Parameters

group

The group that you wish to remove *person* from.

person

The member that you wish to remove from *group*.

Return Value

true if successful. If the *person* parameter is not in *group*, this function does nothing and returns false.

Availability

Available in Mac OS X 10.2 and later.

Declared In

ABAddressBookC.h

ABGroupSetDistributionIdentifier

Assigning a specific distribution identifier for a person's multi-value list property so that the group can be used as a distribution list (mailing list, in the case of an email property).

```
bool ABGroupSetDistributionIdentifier (
    ABGroupRef group,
    ABPersonRef person,
    CFStringRef property,
    CFStringRef identifier
);
```

Parameters

group

The group that *person* belongs to.

person

The person whose distribution identifier for *property* you wish to change. If NULL, this function raises an exception.

property

The multi-value list property whose distribution identifier you wish to change.

identifier

The new distribution identifier, a label used by a multi-value list such as `kABAddressHomeLabel` for a `kABAddressProperty`. Pass NULL to reset the distribution identifier to its default, a multi-value list's primary identifier.

Return Value

true if successful, false otherwise.

Discussion

The default distribution identifier is a multi-value list's primary identifier. Use this function if you need to change the distribution identifier for a particular person. For example, if the default identifier is a person's home email but you want to use John's work email, invoke this function passing `kABEmailWorkLabel` as the *identifier* parameter, `kABEmailProperty` as the *property* parameter, and John's person object as the *person* parameter.

Availability

Available in Mac OS X v10.2 and later.

Declared In

ABAddressBookC.h

Data Types

ABGroupRef

A reference to an ABGroup object.

```
typedef struct __ABGroup *ABGroupRef;
```

Availability

Available in Mac OS X v10.2 and later.

Declared In

ABAddressBookC.h

Constants

Group Properties

Properties specific to ABGroup objects.

```
CFStringRef kABGroupNameProperty;
```

Constants

kABGroupNameProperty

Name of the group.

Available in Mac OS X v10.2 and later.

Declared in ABGlobals.h.

Record Type

Used to designate record types.

```
CFStringRef kABGroupRecordType;
```

Constants

kABGroupRecordType

Indicates record of an ABGroup object.

Available in Mac OS X v10.2 and later.

Declared in ABGlobalsC.h.

Document Revision History

This table describes the changes to *ABGroup Reference for C*.

Date	Notes
2003-08-20	Revised for Mac OS X v10.3.
2003-03-01	First version of <i>ABGroup Reference for C</i> .

REVISION HISTORY

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