
ABAddressBook Class Objective-C Reference

[Cocoa](#) > [Apple Applications](#)



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ABAddressBook Class Objective-C Reference

Inherits from	NSObject
Conforms to	NSObject (NSObject)
Framework	/System/Library/Frameworks/AddressBook.framework
Availability	Available in Mac OS X v10.2 and later.
Companion guide	Address Book Programming Guide for Mac OS X
Declared in	ABAddressBook.h ABGlobals.h
Related sample code	ABPresence AddressBookCocoa Birthdays

Overview

The `ABAddressBook` class provides a programming interface to the Address Book—a centralized database used by multiple applications to store contact and other personal information about people. The Address Book database also supports the notion of a “group” containing one or more persons. People may belong to multiple groups, and groups may also belong to other groups with some restrictions (for example, no circular references are allowed).

The `ABAddressBook` class provides methods for accessing, adding, and removing group and person records including the “me” record corresponding to the logged-in user. For example, you use the [groups](#) (page 9) method to get an array of all the group records in the database, or the [people](#) (page 11) method to get all the person records. You use the [me](#) (page 10) method to get the person record corresponding to the logged-in user. You can also add and remove records using the [addRecord:](#) (page 8) and [removeRecord:](#) (page 12) methods.

You can also search for records matching a particular query you specify by creating an `ABSearchElement` object. You use the `searchElementForProperty:label:key:value:comparison:` method in the `ABPerson` and `ABGroup` class to create an `ABSearchElement` object for the corresponding record. Then use the [recordsMatchingSearchElement:](#) (page 12) `ABAddressBook` method, passing the `ABSearchElement` as the argument, to query the database. See `ABSearchElement` for more methods that create compound queries.

Your application uses a shared instance of `ABAddressBook` returned by the [sharedAddressBook](#) (page 8) class method to interact with the database (multiple `ABAddressBook` instances are not supported). Changes you make to record objects are stored in memory and saved to disk when you invoke the [saveAndReturnError:](#) (page 13) method.

The Address Book posts notifications if any application including yours makes changes to the database. Typically, you observe these notifications to update any dependent view or model objects in your application. Use `NSNotificationCenter` to register for the `ABAddressBook` notifications: [kABDatabaseChangedNotification](#) (page 14) and [kABDatabaseChangedExternallyNotification](#) (page 14). These notifications are not sent until the `sharedAddressBook` class method has been invoked.

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

Tasks

Creating and Initializing an `ABAddressBook`

- + [sharedAddressBook](#) (page 8)
- + [addressBook](#) (page 7)
Returns a new instance of `ABAddressBook`.

Retrieving Groups and People

- [groups](#) (page 9)
- [people](#) (page 11)

Setting and Retrieving the Logged-in User’s Record

- [me](#) (page 10)
- [setMe:](#) (page 13)

Retrieving a Specific Record

- [recordForUniqueId:](#) (page 11)

Retrieving the Class of a Record

- [recordClassFromUniqueId:](#) (page 11)

Retrieving a Formatted Address

- [formattedAddressFromDictionary:](#) (page 9)

Retrieving Default Values

- [defaultCountryCode](#) (page 9)
- [defaultNameOrdering](#) (page 9)

Adding and Removing Records

- [addRecord:](#) (page 8)
- [removeRecord:](#) (page 12)

Searching

- [recordsMatchingSearchElement:](#) (page 12)

Saving and Detecting Changes

- [hasUnsavedChanges](#) (page 10)
- [save](#) (page 12)
- [saveAndReturnError:](#) (page 13)
Saves all the changes made since the last save.

Class Methods

addressBook

Returns a new instance of ABAddressBook.

+ (ABAddressBook *)addressBook

Availability

Available in Mac OS X v10.5 and later.

See Also

+ `sharedAddressBook`

Declared In

`ABAddressBook.h`

sharedAddressBook

+ (ABAddressBook *)sharedAddressBook

Discussion

Returns the unique shared instance of `ABAddressBook`. This method returns the address book for the logged-in user that is shared by every application. If you call this method more than once or try to create a new address book, you get a pointer to the same shared address book.

Availability

Available in Mac OS X v10.2 and later.

See Also

+ `addressBook`

Related Sample Code

`ABPresence`

`AddressBookCocoa`

`Birthdays`

Declared In

`ABAddressBook.h`

Instance Methods

addRecord:

- (BOOL)addRecord:(ABRecord *)*record*

Discussion

Adds an `ABPerson` or `ABGroup` record to the Address Book database. If the *record* argument is `nil`, this method raises an exception. This method returns `YES` if the record was added successfully, `NO` otherwise.

Availability

Available in Mac OS X v10.2 and later.

See Also

- [removeRecord:](#) (page 12)

- `initWithVCardRepresentation:` (`ABPerson`)

Declared In

ABAddressBook.h

defaultCountryCode

- (NSString *)defaultCountryCode

Discussion

Returns the default country code for records with unspecified country codes.

Availability

Available in Mac OS X v10.3 and later.

Declared In

ABAddressBook.h

defaultNameOrdering

- (NSInteger)defaultNameOrdering

Discussion

Returns the default name ordering defined by the user in the Address Book preferences. The possible values are `kABFirstNameFirst` and `kABLastNameFirst`.

Availability

Available in Mac OS X v10.3 and later.

Declared In

ABAddressBook.h

formattedAddressFromDictionary:

- (NSAttributedString *)formattedAddressFromDictionary:(NSDictionary *)*address*

Discussion

Returns an attributed string containing the formatted address. The string's attributes match address dictionary keys, such as `kABAddressStreetKey`. Each attribute value contains the localized description of the key. (For example, the value of a Canadian `kABAddressZIPKey` field would be "Postal Code"; while the value of a French one would be "Code Postale".)

Availability

Available in Mac OS X v10.3 and later.

Declared In

ABAddressBook.h

groups

- (NSArray *)groups

Discussion

Returns an array of all the groups in the Address Book database, or returns an empty array if the database doesn't contain any groups

Availability

Available in Mac OS X v10.2 and later.

See Also

- [people](#) (page 11)

Declared In

ABAddressBook.h

hasUnsavedChanges

- (BOOL)hasUnsavedChanges

Discussion

Returns YES if there are unsaved changes, NO otherwise. The unsaved changes flag is set automatically whenever changes are made.

Availability

Available in Mac OS X v10.2 and later.

See Also

- [saveAndReturnError:](#) (page 13)

Declared In

ABAddressBook.h

me

- (ABPerson *)me

Discussion

Returns the ABPerson record that represents the logged-in user, or nil if the user never specified such a record.

Availability

Available in Mac OS X v10.2 and later.

See Also

- [setMe:](#) (page 13)

Related Sample Code

Birthdays

Declared In

ABAddressBook.h

people

- (NSArray *)people

Discussion

Returns an array of all the people in the Address Book database, or an empty array if the database doesn't contain any people.

Availability

Available in Mac OS X v10.2 and later.

See Also

- [groups](#) (page 9)

Related Sample Code

ABPresence

Declared In

ABAddressBook.h

recordClassFromUniqueId:

- (NSString *)recordClassFromUniqueId:(NSString *)*uniqueId*

Discussion

Returns the class name of the record that matches the given unique ID.

Availability

Available in Mac OS X v10.3 and later.

Declared In

ABAddressBook.h

recordForUniqueId:

- (ABRecord *)recordForUniqueId:(NSString *)*uniqueId*

Discussion

Returns the ABPerson or ABGroup record that matches the given unique ID, or `nil` if no record has the given ID. If *uniqueId* is `nil`, this method raises an exception.

Availability

Available in Mac OS X v10.2 and later.

See Also

- `uniqueId (ABRecord)`

Declared In

ABAddressBook.h

recordsMatchingSearchElement:

```
- (NSArray *)recordsMatchingSearchElement:(ABSearchElement *)search
```

Discussion

Returns an array of records that match the given search element, or returns an empty array if no records match the search element. If *search* is *nil*, this method raises an exception.

Availability

Available in Mac OS X v10.2 and later.

See Also

- + searchElementForProperty:label:key:value:comparison: (ABPerson)
- + searchElementForProperty:label:key:value:comparison: (ABGroup)
- + searchElementForConjunction:children: (ABSearchElement)

Related Sample Code

AddressBookCocoa
Birthdays

Declared In

ABAddressBook.h

removeRecord:

```
- (BOOL)removeRecord:(ABRecord *)record
```

Discussion

Removes an ABPerson or ABGroup record from the Address Book database. If *record* is *nil*, this method raises an exception. This method returns YES if the record was removed successfully, NO otherwise.

Availability

Available in Mac OS X v10.2 and later.

See Also

- [addRecord:](#) (page 8)

Declared In

ABAddressBook.h

save

```
- (BOOL)save
```

Discussion

Saves all the changes made since the last save. Returns YES if this method is successful or there were no changes, NO otherwise.

Availability

Available in Mac OS X v10.2 and later.

See Also

- [hasUnsavedChanges](#) (page 10)
- [saveAndReturnError:](#) (page 13)

Declared In

ABAddressBook.h

saveAndReturnError:

Saves all the changes made since the last save.

```
- (BOOL)saveAndReturnError:(NSError **)error
```

Parameters

error

A pointer to an error object that is set to an NSError instance if an error occurs.

Return Value

YES if successful or there were no changes; otherwise, NO.

Availability

Available in Mac OS X v10.5 and later.

See Also

- [save](#) (page 12)
- [hasUnsavedChanges](#) (page 10)

Declared In

ABAddressBook.h

setMe:

```
- (void)setMe:(ABPerson *)person
```

Discussion

Sets the record that represents the logged-in user. If you don't want a record to represent the logged-in user, then pass `nil` as the *person* argument.

Availability

Available in Mac OS X v10.2 and later.

See Also

- [me](#) (page 10)

Declared In

ABAddressBook.h

Notifications

These notifications are sent when something changes in the Address Book database. These are not sent until the `sharedAddressBook` class method has been invoked.

kABDatabaseChangedNotification

Posted when this process has changed the Address Book database. The process id of the sender and the effective user ID are always included in the user-info dictionary; you access them through the keys `"kABSenderProcessID"` and `"kABUserID"`, respectively. In addition, depending on the operation performed on the address book, one or more of the following keys may be included: `kABInsertedRecords`, `kABUpdatedRecords`, and `kABDeletedRecords`. The values for each of the keys are the unique IDs of the records that were inserted, updated, or deleted, respectively. If the values for all the keys are `nil`, everything has changed, such as when the Address Book database is restored from a backup copy.

Availability

Available in Mac OS X v10.2 and later.

Declared In

`ABGlobals.h`

kABDatabaseChangedExternallyNotification

Posted when a process other than the current one has changed the Address Book database. The process id of the sender and the effective user ID are always included in the user-info dictionary; you access them through the keys `"kABSenderProcessID"` and `"kABUserID"`, respectively. In addition, depending on the operation performed on the address book, one or more of the following keys may be included: `kABInsertedRecords`, `kABUpdatedRecords`, and `kABDeletedRecords`. The values for each of the keys are the unique IDs of the records that were inserted, updated, or deleted, respectively. If the values for all the keys are `nil`, everything has changed, such as when the Address Book database is restored from a backup copy.

Availability

Available in Mac OS X v10.2 and later.

Declared In

`ABGlobals.h`

Document Revision History

This table describes the changes to *ABAddressBook Class Objective-C Reference*.

Date	Notes
2007-07-07	Updated for Mac OS X v10.5.
2006-05-23	First publication of this content as a separate document.

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