

[Contacts](#) / CNChangeHistoryEventVisitor

Protocol

CNChangeHistoryEventVisitor

An interface for receiving notice of changes to contacts and groups.

iOS 13.0+ | iPadOS 13.0+ | Mac Catalyst 13.1+ | macOS 10.15+ | visionOS 1.0+ | watchOS 6.0+

```
protocol CNChangeHistoryEventVisitor : NSObjectProtocol
```

Overview

Implement this protocol to receive events that describe when a user adds, updates, or deletes contacts or groups outside your app.

Topics

Updating contacts

```
func visit(CNChangeHistoryAddContactEvent)
```

Tells the delegate that the user added a contact.

Required

```
func visit(CNChangeHistoryUpdateContactEvent)
```

Tells the delegate that the user updated a contact.

Required

```
func visit(CNChangeHistoryDeleteContactEvent)
```

Tells the delegate that the user deleted a contact.

Required

Updating groups

```
func visit(CNChangeHistoryAddGroupEvent)
```

Tells the delegate that the user added a group.

```
func visit(CNChangeHistoryUpdateGroupEvent)
```

Tells the delegate that the user updated a group.

```
func visit(CNChangeHistoryDeleteGroupEvent)
```

Tells the delegate that the user deleted a group.

Updating subgroups

```
func visitAddSubgroup(CNChangeHistoryAddSubgroupToGroupEvent)
```

Tells the delegate that the user added a subgroup to a group.

```
func visitRemoveSubgroup(CNChangeHistoryRemoveSubgroupFromGroupEvent)
```

Tells the delegate that the user removed a subgroup from a group.

Updating contacts in groups

```
func visitAddMember(CNChangeHistoryAddMemberToGroupEvent)
```

Tells the delegate that the user added a contact to a group.

```
func visitRemoveMember(CNChangeHistoryRemoveMemberFromGroupEvent)
```

Tells the delegate that the user removed a contact from a group.

Resetting synced data

```
func visit(CNChangeHistoryDropEverythingEvent)
```

Tells the delegate to drop all contacts and groups before handling more events.

Required

Relationships

Inherits From

See Also

Change history data

`class CNChangeHistoryAddContactEvent`

An object that represents a user adding a contact.

`class CNChangeHistoryAddGroupEvent`

An object that represents a user adding a group.

`class CNChangeHistoryAddMemberToGroupEvent`

An object that represents a user adding a contact to a group.

`class CNChangeHistoryAddSubgroupToGroupEvent`

An object that represents a user adding a subgroup to a group.

`class CNChangeHistoryDeleteContactEvent`

An object that represents a user deleting a contact.

`class CNChangeHistoryDeleteGroupEvent`

An object that represents a user deleting a group.

`class CNChangeHistoryDropEverythingEvent`

An object that indicates the delegate should drop all contacts and groups before handling change events.

`class CNChangeHistoryEvent`

An object that represents the user adding, updating, or deleting a contact or group.

`class CNChangeHistoryFetchRequest`

An object that specifies the criteria for fetching change history.

`class CNChangeHistoryRemoveMemberFromGroupEvent`

An object that represents a user removing a contact from a group.

`class CNChangeHistoryRemoveSubgroupFromGroupEvent`

An object that represents a user removing a subgroup from a group.

`class CNChangeHistoryUpdateContactEvent`

An object that represents a user updating a contact.

`class CNChangeHistoryUpdateGroupEvent`

An object that represents an updated group event.