

[Foundation](#) / Task Management

API Collection

Task Management

Manage your app's work and how it interacts with system services like Handoff and Shortcuts.

Topics

Undo

`class UndoManager`

A general-purpose recorder of operations that enables undo and redo.

Progress

`protocol ProgressReporting`

An interface for objects that report progress using a single progress instance.

`class Progress`

An object that conveys ongoing progress to the user for a specified task.

Operations

`class Operation`

An abstract class that represents the code and data associated with a single task.

`class OperationQueue`

A queue that regulates the execution of operations.

`class BlockOperation`

An operation that manages the concurrent execution of one or more blocks.

Scheduling

`class Timer`

A timer that fires after a certain time interval has elapsed, sending a specified message to a target object.

Activity Sharing

Share the user's current activity with Handoff, Spotlight, and Siri Shortcuts.



Continuing User Activities with Handoff

Define and manage which of your app's activities can be continued between devices.



Implementing Handoff in Your App

Create, send, and receive user activities directly.

`class NSUserActivity`

A representation of the state of your app at a moment in time.

`protocol NSUserActivityDelegate`

The interface through which a user activity instance notifies its delegate of updates.

System Interaction

`class ProcessInfo`

A collection of information about the current process.

`class NSBackgroundActivityScheduler`

A task scheduler suitable for low priority operations that can run in the background.

User Notifications

~~`class NSUserNotification`~~

A notification that can be scheduled for display in the notification center.

Deprecated

~~`class NSUserNotificationAction`~~

An action that the user can take in response to receiving a notification.

Deprecated

~~class~~ ~~NotificationCenter~~

An object that delivers notifications from apps to the user.

Deprecated

~~protocol~~ ~~NotificationCenterDelegate~~

An interface that enables customizing the behavior of the default notification center.

Combine Integration

`typealias Published`

A type alias for the Combine framework's type that publishes a property marked with an attribute.

`typealias ObservableObject`

A type alias for the Combine framework's type for an object with a publisher that emits before the object has changed.

See Also

App Support



Resources

Access assets and other data bundled with your app.



Notifications

Design patterns for broadcasting information and for subscribing to broadcasts.



App Extension Support

Manage the interaction between an app extension and its hosting app.



Errors and Exceptions

Respond to problem situations in your interactions with APIs, and fine-tune your app for better debugging.



Scripting Support

Allow users to control your app with AppleScript and other automation technologies, or run scripts from within your app.