

[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 NSUserNotificationCenter~~

An object that delivers notifications from apps to the user.

Deprecated

## ~~protocol NSUserNotificationCenterDelegate~~

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.