

Accessibility Debugging in Xcode 11

What is Accessibility?

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VoiceOver

AssistiveTouch

Dynamic Type

Guided Access

Magnifier

Voice Control

Captioning

Increase Contrast

Reading Support

Zoom

Differentiate Color

Color Filters

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What is Accessibility?

The screenshot shows the Apple Developer Documentation for the `UIAccessibility` protocol. The left sidebar lists several sections of methods:

- Determining Accessibility
 - `isAccessibilityElement: Bool`
- Configuring Behavior
 - `Accessibility Traits`
 - `accessibilityTraits: UIAccessibilityTraits`
 - `UIAccessibilityTraits`
 - `accessibilityCustomRouters: [UIAccessibilityCustomRouter]`
 - `accessibilityElementsHidden: Bool`
 - `accessibilityNotifyWhenDestroyed: Bool`
 - `accessibilityRespondsToUserInteraction: Bool`
 - `accessibilityViewIsModal: Bool`
 - `shouldGroupAccessibilityChildren: Bool`
- Defining Accessibility Text and Language
 - `Speech Attributes for Attributed Strings`
 - `Text Attributes for Attributed Strings`
 - `accessibilityHeaderElements: [Any?]`
 - `accessibilityAttributedHint: NSAttributedString?`
 - `accessibilityHint: String?`
 - `accessibilityAttributedLabel: NSAttributedString?`
 - `accessibilityLabel: String?`
 - `accessibilityLanguage: String?`
 - `accessibilityTextualContext: UIAccessibilityTextualContext`
 - `accessibilityAttributedUserInputLabels: [NSAttributedString?`
 - `accessibilityUserInputLabels: [String]?`
 - `accessibilityAttributedValue: NSAttributedString?`
 - `accessibilityValue: String?`
- Handling Notifications
 - `Assistive Technology Identifiers`
 - `Notification Dictionary Keys`
 - `UIAccessibility`
 - `UIAccessibility.AssistiveTechnologyIdentifier`
 - `UIAccessibility.Notification`
- Navigating Elements
 - `UIAccessibilityContainer`

The main content area shows the `UIAccessibility` protocol definition:

```
UIKit > Accessibility > UIAccessibility  
Objective-C Runtime > NSObject > UIAccessibility  
Foundation > Object Runtime > NSObject > UIAccessibility
```

UIAccessibility

A set of methods that provide accessibility information about views and controls in an app's user interface.

Language: Swift | Objective-C

Overview

The `UIAccessibility` informal protocol provides accessibility information about an app's user interface elements. Assistive apps, such as VoiceOver, convey this information to users with disabilities to help them use the app.

Standard UIKit controls and views implement the `UIAccessibility` methods and are therefore accessible to assistive apps by default. This means that if your app uses only standard controls and views, such as `UIButton`, `UISegmentedControl`, and `UITableView`, you need only supply app-specific details when the default values are incomplete. You can do this by setting these values in Interface Builder or by setting the properties in this informal protocol.

The `UIAccessibility` informal protocol is also implemented by the `UIAccessibilityElement` class, which represents custom user interface objects. If you create a completely custom `UIView` subclass, you might need to create an instance of `UIAccessibilityElement` to represent it. In this case, you would support all the `UIAccessibility` properties to correctly set and return the accessibility element's properties.

Topics

Why Do Accessibility?

**“[...] there's nothing on the iPhone or
the iPad that you can do, that I can't
do.”**

— Stevie Wonder

Why Do Accessibility?

“The accessibility support is as much a part of your user interface as the artwork is.”

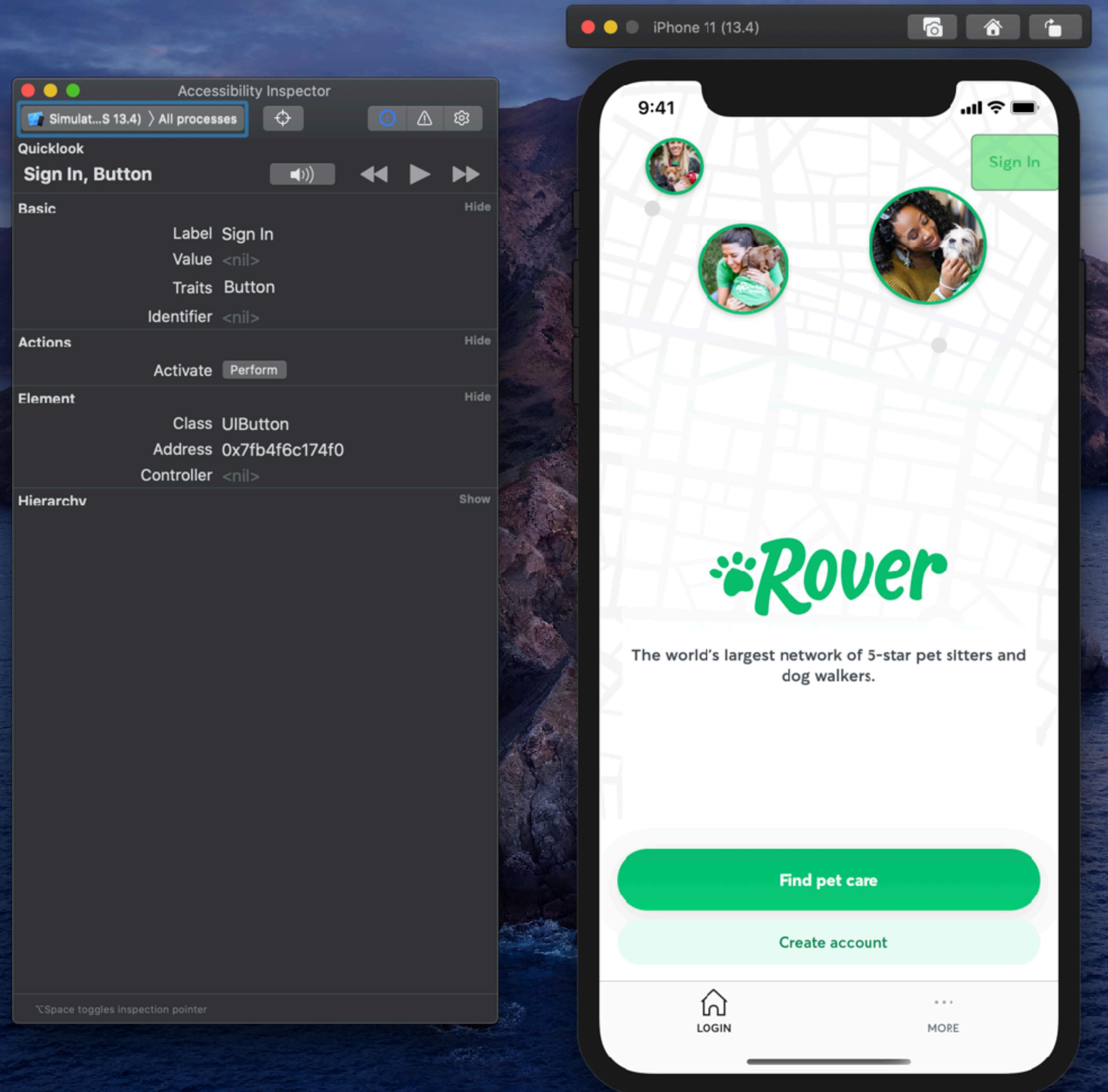
— Apple

Testing Accessibility

Used to be painful

**Many trips between your app and
Settings**

Slow test/fix/verify cycle



Demo

Links

[Stevie Wonder Quote](#)

[Accessibility Inspector \(WWDC 2019\)](#)

[Visual Design and Accessibility \(WWDC 2019\)](#)

[Dynamic Type Sizes](#)