

[XCUIAutomation](#) / XCUICoordinate

Class

XCUICoordinate

A location on screen relative to a UI element.

iOS | iPadOS | Mac Catalyst | macOS | visionOS | watchOS | Xcode 16.3+

```
@MainActor
class XCUICoordinate
```

Overview

Coordinates are dynamic, like the elements to which they refer, and may compute different screen locations at different times, or be invalid if the element they reference doesn't exist.

Topics

Getting coordinate properties

```
var referencedElement: XCUIElement
```

The element that the coordinate is based on, either directly or through the coordinate from which it was derived.

```
var screenPoint: CGPoint
```

The dynamically computed value of the coordinate's location on screen.

Moving the pointer

```
func hover()
```

Moves the pointer to the coordinate.

Clicking

```
func click()
```

Sends a click event at the coordinate.

```
func click(forDuration: TimeInterval, thenDragTo: XCUICoordinate)
```

Clicks and holds for a duration you specify, then drags to the other coordinate.

```
func click(forDuration: TimeInterval, thenDragTo: XCUICoordinate, with  
Velocity: XCUIGestureVelocity, thenHoldForDuration: TimeInterval)
```

Clicks and holds for a duration, drags at a velocity, and holds over the other coordinate for a duration, all of which you specify.

```
func doubleClick()
```

Sends a double-click event at the coordinate.

```
func rightClick()
```

Sends a Control-click event at the coordinate.

Scrolling

```
func scroll(byDeltaX: CGFloat, deltaY: CGFloat)
```

Scrolls the view by the number of x and y pixels you specify.

Tapping and pressing

```
func tap()
```

Sends a tap event at the coordinate.

```
func doubleTap()
```

Sends a double-tap event at the coordinate.

```
func press(forDuration: TimeInterval)
```

Initiates a press-and-hold gesture at the coordinate, holding for the duration you specify.

```
func press(forDuration: TimeInterval, thenDragTo: XCUICoordinate)
```

Initiates a press-and-hold gesture at the coordinate, then drags to another coordinate.

```
func press(forDuration: TimeInterval, thenDragTo: XCUICoordinate, with
Velocity: XCUIGestureVelocity, thenHoldForDuration: TimeInterval)
```

Initiates a press-and-hold gesture, drags to another coordinate with a velocity you specify, and holds for a duration you specify.

Performing gestures

```
func swipeLeft()
```

Sends a swipe-left gesture.

```
func swipeLeft(velocity: XCUIGestureVelocity)
```

Sends a swipe-left gesture with a velocity you specify.

```
func swipeRight()
```

Sends a swipe-right gesture.

```
func swipeRight(velocity: XCUIGestureVelocity)
```

Sends a swipe-right gesture with a velocity you specify.

```
func swipeUp()
```

Sends a swipe-up gesture.

```
func swipeUp(velocity: XCUIGestureVelocity)
```

Sends a swipe-up gesture with a velocity you specify.

```
func swipeDown()
```

Sends a swipe-down gesture.

```
func swipeDown(velocity: XCUIGestureVelocity)
```

Sends a swipe-down gesture with a velocity you specify.

Creating relative coordinates

```
func withOffset(CGVector) -> XCUICoordinate
```

Creates a new coordinate with an absolute offset in points from the original coordinate.

Relationships

Inherits From

NSObject

Conforms To

CVarArg

CustomDebugStringConvertible

CustomStringConvertible

Equatable

Hashable

NSCopying

NSObjectProtocol

Sendable

See Also

UI elements

`class` XCUIElement

A UI element in an application.

`protocol` XCUIElementAttributes

Attributes exposed by UI elements.

`protocol` XCUIElementSnapshot

A set of attributes to express a snapshot of an element's attributes and descendant user interface hierarchy.

`protocol` XCUIElementSnapshotProviding

A method to capture a snapshot of an element's attributes and descendant user interface hierarchy.