

[XCUIAutomation](#) / XCUIElementTypeQueryProvider

Protocol

XCUIElementTypeQueryProvider

A type that provides ready-made queries for locating descendant UI elements.

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

```
@MainActor
protocol XCUIElementTypeQueryProvider
```

Overview

Accessing the properties to get queries for descendant elements on an instance of a conforming class (such as an [XCUIElement](#) or [XCUIElementQuery](#) instance) is equivalent to calling [descendants\(matching:\)](#) for the corresponding element type.

Topics

Finding the first matching element

```
var firstMatch: XCUIElement
```

The first element that matches the query.

Required

Querying descendant elements

```
var activityIndicators: XCUIElementQuery
```

A query that matches activity-indicator view elements.

Required

`var alerts: XCUIElementQuery`

A query that matches alert view elements.

Required

`var browsers: XCUIElementQuery`

A query that matches browser elements.

Required

`var buttons: XCUIElementQuery`

A query that matches button control elements.

Required

`var cells: XCUIElementQuery`

A query that matches cell elements.

Required

`var checkBoxes: XCUIElementQuery`

A query that matches checkbox control elements.

Required

`var collectionViews: XCUIElementQuery`

A query that matches collection view elements.

Required

`var colorWells: XCUIElementQuery`

A query that matches color-well elements.

Required

`var comboBoxes: XCUIElementQuery`

A query that matches combo-box control elements.

Required

`var datePickers: XCUIElementQuery`

A query that matches date-picker control elements.

Required

`var decrementArrows: XCUIElementQuery`

A query that matches decrement-arrow control elements.

Required

`var dialogs: XCUIElementQuery`

A query that matches dialog view elements.

Required

`var disclosureTriangles: XCUIElementQuery`

A query that matches disclosure-triangle control elements.

Required

`var disclosedChildRows: XCUIElementQuery`

A query that matches disclosed child row elements.

Required

`var dockItems: XCUIElementQuery`

A query that matches dock-item control elements.

Required

`var drawers: XCUIElementQuery`

A query that matches drawer elements.

Required

`var grids: XCUIElementQuery`

A query that matches grid view elements.

Required

`var groups: XCUIElementQuery`

A query that matches group elements.

Required

`var handles: XCUIElementQuery`

A query that matches handle control elements.

Required

`var helpTags: XCUIElementQuery`

A query that matches help-tag elements.

Required

`var icons: XCUIElementQuery`

A query that matches icon elements.

Required

`var images: XCUIElementQuery`

A query that matches image-view elements.

Required

`var incrementArrows: XCUIElementQuery`

A query that matches increment-arrow control elements.

Required

`var keyboards: XCUIElementQuery`

A query that matches keyboard elements.

Required

`var keys: XCUIElementQuery`

A query that matches key elements.

Required

`var layoutAreas: XCUIElementQuery`

A query that matches layout-area elements.

Required

`var layoutItems: XCUIElementQuery`

A query that matches layout-item elements.

Required

`var levelIndicators: XCUIElementQuery`

A query that matches level-indicator elements.

Required

`var links: XCUIElementQuery`

A query that matches link elements.

Required

`var maps: XCUIElementQuery`

A query that matches map-view elements.

Required

`var mattes: XCUIElementQuery`

A query that matches matte elements.

Required

`var menuBarItems: XCUIElementQuery`

A query that matches menu bar item elements.

Required

`var menuBars: XCUIElementQuery`

A query that matches menu bar elements.

Required

`var menuButtons: XCUIElementQuery`

A query that matches menu button elements.

Required

`var menuItems: XCUIElementQuery`

A query that matches menu item elements.

Required

`var menus: XCUIElementQuery`

A query that matches menu elements.

Required

`var navigationBars: XCUIElementQuery`

A query that matches navigation bar elements.

Required

`var otherElements: XCUIElementQuery`

A query that matches other view or control elements.

Required

`var outlineRows: XCUIElementQuery`

A query that matches outline row elements.

Required

`var outlines: XCUIElementQuery`

A query that matches outline view elements.

Required

`var pageIndicators: XCUIElementQuery`

A query that matches page-indicator control elements.

Required

`var pickerWheels: XCUIElementQuery`

A query that matches picker-wheel control elements.

Required

`var pickers: XCUIElementQuery`

A query that matches picker control elements.

Required

`var popUpButtons: XCUIElementQuery`

A query that matches popup-button control elements.

Required

`var popovers: XCUIElementQuery`

A query that matches popover view elements.

Required

`var progressIndicators: XCUIElementQuery`

A query that matches progress-indicator control elements.

Required

`var radioButtons: XCUIElementQuery`

A query that matches radio-button control elements.

Required

`var radioGroups: XCUIElementQuery`

A query that matches radio group elements.

Required

`var ratingIndicators: XCUIElementQuery`

A query that matches rating-indicator view elements.

Required

`var relevanceIndicators: XCUIElementQuery`

A query that matches relevance-indicator view elements.

Required

`var rulerMarkers: XCUIElementQuery`

A query that matches ruler marker elements.

Required

`var rulers: XCUIElementQuery`

A query that matches ruler view elements.

Required

`var scrollBars: XCUIElementQuery`

A query that matches scroll bar elements.

Required

`var scrollViews: XCUIElementQuery`

A query that matches scroll view elements.

Required

`var searchFields: XCUIElementQuery`

A query that matches search field elements.

Required

`var secureTextFields: XCUIElementQuery`
A query that matches secure text field elements.
Required

`var segmentedControls: XCUIElementQuery`
A query that matches segmented control elements.
Required

`var sheets: XCUIElementQuery`
A query that matches sheet elements.
Required

`var sliders: XCUIElementQuery`
A query that matches slider elements.
Required

`var splitGroups: XCUIElementQuery`
A query that matches split group elements.
Required

`var splitters: XCUIElementQuery`
A query that matches splitter elements.
Required

`var staticTexts: XCUIElementQuery`
A query that matches static-text view elements.
Required

`var statusBars: XCUIElementQuery`
A query that matches status bar elements.
Required

`var statusItems: XCUIElementQuery`
A query that matches status item elements.
Required

`var steppers: XCUIElementQuery`
A query that matches stepper elements.
Required

`var switches: XCUIElementQuery`
A query that matches switch control elements.
Required

`var tabBar: XCUIElementQuery`

A query that matches tab bar elements.

Required

`var tabGroups: XCUIElementQuery`

A query that matches tab group elements.

Required

`var tableColumns: XCUIElementQuery`

A query that matches table column elements.

Required

`var tableRows: XCUIElementQuery`

A query that matches table row elements.

Required

`var tables: XCUIElementQuery`

A query that matches table elements.

Required

`var tabs: XCUIElementQuery`

A query that matches tab elements.

Required

`var textFields: XCUIElementQuery`

A query that matches text field elements.

Required

`var textViews: XCUIElementQuery`

A query that matches text view elements.

Required

`var timelines: XCUIElementQuery`

A query that matches timeline view elements.

Required

`var toggles: XCUIElementQuery`

A query that matches toggle control elements.

Required

`var toolbarButtons: XCUIElementQuery`

A query that matches toolbar button elements.

Required

`var toolbars: XCUIElementQuery`

A query that matches toolbar elements.

Required

`var touchBars: XCUIElementQuery`

A query that matches touch bar elements.

Required

`var valueIndicators: XCUIElementQuery`

A query that matches value indicator elements.

Required

`var webViews: XCUIElementQuery`

A query that matches web view elements.

Required

`var windows: XCUIElementQuery`

A query that matches window elements.

Required

Relationships

Conforming Types

XCUIApplication

XCUIElement

XCUIElementQuery

XCUISiriService

See Also

UI element queries

`class XCUIElementQuery`

An object that defines the search criteria a test uses to identify UI elements.