Structure

NormalizedCircle

The center point and radius of a 2D circle.

iOS 18.0+ | iPadOS 18.0+ | macOS 15.0+ | tvOS 18.0+ | visionOS 2.0+

```
struct NormalizedCircle
```

Topics

Creating a normalized circle

`init(center: NormalizedPoint, radius: CGFloat)`

Creates a circle with the specified center and radius.

`static var zero: NormalizedCircle`

A circle object centered at the origin, with a radius of zero.

Inspecting a normalized circle

`let center: NormalizedPoint`

The circle’s center point.

`let radius: CGFloat`

The circle’s radius.

Determining whether the circle contains a point

`func contains(NormalizedPoint) -> Bool`

Returns a Boolean value that indicates whether this circle, including its boundary, contains the specified point.

`func contains(NormalizedPoint, inCircumferentialRingOfWidth: CGFloat) -> Bool`

Returns a Boolean value that indicates whether a ring around this circle's circumference contains the specified point.

Getting the bounding circle

`static func boundingCircle(for: [NormalizedPoint]) -> NormalizedCircle`

Creates the smallest circle that encloses the points you specify.

See Also

Image locations and regions

`struct NormalizedPoint`

A point in a 2D coordinate system.

`struct NormalizedRect`

The location and dimensions of a rectangle.

`typealias NormalizedRegion`

A polygon composed of normalized points.

`protocol BoundingBoxProviding`

A protocol for objects that have a bounding box.

`protocol BoundingRegionProviding`

A protocol for objects that have a defined boundary in an image.

`protocol QuadrilateralProviding`

A protocol for objects that have a bounding quadrilateral.

`enum CoordinateOrigin`

The origin of a coordinate system relative to an image.