Core Foundation / CGRect

Structure

CGRect

iOS | iPadOS | Mac Catalyst | macOS | tvOS | visionOS | watchOS

```
struct CGRect
```

Topics

Initializers

init()

init?(dictionaryRepresentation: CFDictionary)

init(origin: CGPoint, size: CGSize)

init(x: Double, y: Double, width: Double, height: Double)

init(x: Int, y: Int, width: Int, height: Int)

init(x: CGFloat, y: CGFloat, width: CGFloat, height: CGFloat)

Instance Properties

~~var customPlaygroundQuickLook: PlaygroundQuickLook~~

A custom playground Quick Look for this instance.

Deprecated

var dictionaryRepresentation: CFDictionary

var height: CGFloat

```
var integral: CGRect

var isEmpty: Bool

var isInfinite: Bool

var isNull: Bool

var maxX: CGFloat

var maxY: CGFloat

var midX: CGFloat

var midY: CGFloat

var minX: CGFloat

var minY: CGFloat

var origin: CGPoint

var size: CGSize

var standardized: CGRect

var width: CGFloat
```

Instance Methods

```
func applying(CGAffineTransform) -> CGRect
```

```
func clip()
```
Modifies the current graphics context clipping path by intersecting it with this rect. This permanently modifies the graphics state, so the current state should be saved beforehand and restored afterwards.

```
func contains(CGPoint) -> Bool
```

```
func contains(CGRect) -> Bool
```

```
func divided(atDistance: CGFloat, from: CGRectEdge) -> (slice: CGRect,
remainder: CGRect)
```

```
func equalTo(CGRect) -> Bool
```

```
func fill(using: NSCompositingOperation)
```
Fills this rect in the current NSGraphicsContext in the context's fill color. The compositing operation of the fill defaults to the context's compositing operation, not necessarily using

`.copy` like `NSRectFill()`.

func `frame(withWidth: CGFloat, using: NSCompositingOperation)`

Draws a frame around the inside of this rect in the current NSGraphicsContext in the context's fill color The compositing operation of the fill defaults to the context's compositing operation, not necessarily using `.copy` like `NSFrameRect()`.

func `inset(by: UIEdgeInsets) -> CGRect`

func `insetBy(dx: CGFloat, dy: CGFloat) -> CGRect`

func `intersection(CGRect) -> CGRect`

func `intersects(CGRect) -> Bool`

func `offsetBy(dx: CGFloat, dy: CGFloat) -> CGRect`

func `union(CGRect) -> CGRect`

Type Properties

static var `infinite: CGRect`

static var `null: CGRect`

static var `zero: CGRect`

Relationships

Conforms To

```
Animatable
BitwiseCopyable
Copyable
CustomDebugStringConvertible
CustomReflectable
Decodable
Encodable
Equatable
Hashable
Sendable
```

See Also

Structures

struct **CGAffineTransform**

struct **CGAffineTransformComponents**

struct **CGFloat**

    The basic type for floating-point scalar values in Core Graphics and related frameworks.

struct **CGPoint**

struct **CGSize**

    A structure that contains width and height values.

struct **CGVector**

    A structure that contains a two-dimensional vector.