

[Vision](#) / DetectHorizonRequest

## Structure

# DetectHorizonRequest

An image-analysis request that determines the horizon angle in an image.

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

```
struct DetectHorizonRequest
```

## Overview

This request generates a [HorizonObservation](#) object that describes the horizon the request detects.

## Topics

### Creating a request

```
init(DetectHorizonRequest.Revision?)
```

Creates a horizon-detection request.

### Getting the revision

```
let revision: DetectHorizonRequest.Revision
```

The algorithm or implementation the request uses.

```
static let supportedRevisions: [DetectHorizonRequest.Revision]
```

The collection of revisions the request supports.

```
enum Revision
```

A type that describes the algorithm or implementation that the request performs.

## Performing a request

```
func perform(on: URL, orientation: CGImagePropertyOrientation?) async  
throws -> Self.Result
```

Performs the request on an image URL and produces observations.

**Required** Default implementations provided.

```
func perform(on: Data, orientation: CGImagePropertyOrientation?) async  
throws -> Self.Result
```

Performs the request on image data and produces observations.

**Required** Default implementations provided.

```
func perform(on: CGImage, orientation: CGImagePropertyOrientation?)  
async throws -> Self.Result
```

Performs the request on a Core Graphics image and produces observations.

**Required** Default implementations provided.

```
func perform(on: CVPixelBuffer, orientation: CGImagePropertyOrientation  
?) async throws -> Self.Result
```

Performs the request on a pixel buffer and produces observations.

**Required** Default implementations provided.

```
func perform(on: CMSampleBuffer, orientation: CGImageProperty  
Orientation?) async throws -> Self.Result
```

Performs the request on a Core Media buffer and produces observations.

**Required** Default implementations provided.

```
func perform(on: CIImage, orientation: CGImagePropertyOrientation?)  
async throws -> Self.Result
```

Performs the request on a Core Image image and produces observations.

**Required** Default implementations provided.

```
struct HorizonObservation
```

The horizon angle information that an image-analysis request detects.

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## Relationships

## Conforms To

CustomStringConvertible

Equatable

Hashable

ImageProcessingRequest

Sendable

SendableMetatype

VisionRequest

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## See Also

### Trajectory, contour, and horizon detection

`class DetectTrajectoriesRequest`

A request that detects the trajectories of shapes moving along a parabolic path.

`struct DetectContoursRequest`

A request that detects the contours of the edges of an image.