

[Vision](#) / PixelBufferObservation

## Structure

# PixelBufferObservation

An object that represents an image that an image-analysis request produces.

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

```
struct PixelBufferObservation
```

## Topics

### Creating an observation

```
init?(VNPixelBufferObservation)
```

Creates a pixel buffer observation.

### Inspecting an observation

```
enum RequestDescriptor
```

A type that describes the request and revision combination.

```
var cgImage: CGImage
```

A Core Graphics image created from the pixel buffer observation.

```
var pixelFormat: OSType
```

The four-character code that identifies the pixel format.

```
var size: CGSize
```

The size of the image.

## Getting pixel data

```
func pixel(at: NormalizedPoint) -> Float
```

Returns the pixel data for the specified location in the image.

## Accessing the memory

```
func withUnsafePointer<R>((UnsafeRawPointer) -> R) -> R
```

Invokes the given closure with a pointer to the given argument.

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# Relationships

## Conforms To

CustomStringConvertible  
Decodable  
Encodable  
Equatable  
Hashable  
Sendable  
SendableMetatype  
VisionObservation

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## See Also

## Machine learning image analysis

```
struct CoreMLRequest
```

An image-analysis request that uses a Core ML model to process images.

```
struct CoreMLFeatureValueObservation
```

An object that represents a collection of key-value information that a Core ML image-analysis request produces.

```
struct ClassificationObservation
```

An object that represents classification information that an image-analysis request produces.