

```

import Foundation

extension MLFeatureValue {

    /// Options keys passed into the
    MLFeatureValue construction for image
    types
    public struct ImageOption : Hashable,
    Equatable, RawRepresentable, @unchecked
    Sendable {

        public init(_ rawValue: String)

        public init(rawValue: String)
    }
}

extension MLFeatureValue.ImageOption {

    /// Key for CGRect describing a crop
    region of interest of image source in
    normalized coordinates
    @available(macOS 10.15, *)
    public static let cropRect:
    MLFeatureValue.ImageOption

    /// Key for VNImageCropAndScaleOption
    describing how to crop and scale the
    image (or region of interest) to the
    desired size
    @available(macOS 10.15, *)
    public static let cropAndScale:
    MLFeatureValue.ImageOption

```

```
}
```

```
@available(macOS 10.15, *)  
extension MLFeatureValue {
```

```
    /// Construct image feature value  
    from an image on disk. Orientation is  
    read from Exif if available
```

```
    public convenience init(imageAt url:  
URL, pixelsWide: Int, pixelsHigh: Int,  
pixelFormatType: OSType, options:  
[MLFeatureValue.ImageOption : Any]? =  
nil) throws
```

```
    /// Construct image feature value  
    from an image on disk, using a model  
    specified image constraint. Orientation  
    is read from Exif if available
```

```
    public convenience init(imageAt url:  
URL, constraint: MLImageConstraint,  
options: [MLFeatureValue.ImageOption :  
Any]? = nil) throws
```

```
    /// Construct image feature value  
    from CGImage (orientation is assumed to  
    be kCGImagePropertyOrientationUp)
```

```
    public convenience init(cgImage:  
CGImage, pixelsWide: Int, pixelsHigh:  
Int, pixelFormatType: OSType, options:  
[MLFeatureValue.ImageOption : Any]? =  
nil) throws
```

```
    /// Construct image feature value
```

from CGImage, using the size and type information required by feature description (orientation is assumed to be kCGImagePropertyOrientationUp)

```
public convenience init(CGImage: CGImage, constraint: MLImageConstraint, options: [MLFeatureValue.ImageOption : Any]? = nil) throws
```

/// Construct image feature value from an image on disk. The passed in orientation supersedes any in the file

```
public convenience init(imageAt url: URL, orientation: CGImagePropertyOrientation, pixelsWide: Int, pixelsHigh: Int, pixelFormatType: OSType, options: [MLFeatureValue.ImageOption : Any]? = nil) throws
```

/// Construct image feature value from an image on disk using a model specified image constraint. The passed in orientation supersedes any in the file

```
public convenience init(imageAt url: URL, orientation: CGImagePropertyOrientation, constraint: MLImageConstraint, options: [MLFeatureValue.ImageOption : Any]? = nil) throws
```

/// Construct image feature value from CGImage w/ specified orientation

```
    public convenience init(cgImage:
CGImage, orientation:
CGImagePropertyOrientation, pixelsWide:
Int, pixelsHigh: Int, pixelFormatType:
OSType, options:
[MLFeatureValue.ImageOption : Any]? =
nil) throws
```

```
    /// Construct image feature value
from CGImage w/ specified orientation,
using the size and type information
required by feature description
    public convenience init(cgImage:
CGImage, orientation:
CGImagePropertyOrientation, constraint:
MLImageConstraint, options:
[MLFeatureValue.ImageOption : Any]? =
nil) throws
}
```