

## □ Documentation

[Accelerate / Morphology](#)

API Collection

# Morphology

Dilate and erode images.

## Topics

### Dilating an object

```
func vImageDilate_Planar8(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, vImagePixelCount, vImagePixelCount, UnsafePointer<UInt8>, vImagePixelCount, vImagePixelCount, vImage_Flags) -> vImage_Error
```

Dilates an 8-bit planar buffer.

```
func vImageDilate_PlanarF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, vImagePixelCount, vImagePixelCount, UnsafePointer<Float>, vImagePixelCount, vImagePixelCount, vImage_Flags) -> vImage_Error
```

Dilates a 32-bit planar buffer.

```
func vImageDilate_ARGB8888(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, vImagePixelCount, vImagePixelCount, UnsafePointer<UInt8>, vImagePixelCount, vImagePixelCount, vImage_Flags) -> vImage_Error
```

Dilates an 8-bit-per-channel, 4-channel interleaved buffer.

```
func vImageDilate_ARGBFFFF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, vImagePixelCount, vImagePixelCount, UnsafePointer<Float>, vImagePixelCount, vImagePixelCount, vImage_Flags) -> vImage_Error
```

Dilates a 32-bit-per-channel, 4-channel interleaved buffer.

### Eroding an object

```
func vImageErode_Planar8(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, vImagePixelCount, vImagePixelCount, UnsafePointer<UInt8>, vImagePixelCount, vImagePixelCount, vImage_Flags) -> vImage_Error
```

Erodes an 8-bit planar buffer.

```
func vImageErode_PlanarF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, vImagePixelCount, vImagePixelCount, UnsafePointer<Float>, vImagePixelCount, vImagePixelCount, vImage_Flags) -> vImage_Error
```

Erodes a 32-bit planar buffer.

```
func vImageErode_ARGB8888(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, vImagePixelCount, vImagePixelCount, UnsafePointer<UInt8>, vImagePixelCount, vImagePixelCount, vImage_Flags) -> vImage_Error
```

Erodes an 8-bit-per-channel, 4-channel interleaved buffer.

```
func vImageErode_ARGBFFFF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, vImagePixelCount, vImagePixelCount, UnsafePointer<Float>, vImagePixelCount, vImagePixelCount, vImage_Flags) -> vImage_Error
```

Erodes a 32-bit-per-channel, 4-channel interleaved buffer.

## Maximizing an object

```
func vImageMax_Planar8(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImage_Flags) -> vImage_Error
```

Maximizes an 8-bit planar buffer.

```
func vImageMax_PlanarF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImage_Flags) -> vImage_Error
```

Maximizes a 32-bit planar buffer.

```
func vImageMax_ARGB8888(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImage_Flags) -> vImage_Error
```

Maximizes an 8-bit-per-channel, 4-channel interleaved buffer.

```
func vImageMax_ARGBFFFF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImageFlags) -> vImage_Error
```

Maximizes a 32-bit-per-channel, 4-channel interleaved buffer.

## Minimizing an object

```
func vImageMin_Planar8(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImageFlags) -> vImage_Error
```

Minimizes an 8-bit planar buffer.

```
func vImageMin_PlanarF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImageFlags) -> vImage_Error
```

Minimizes a 32-bit planar buffer.

```
func vImageMin_ARGB8888(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImageFlags) -> vImage_Error
```

Minimizes an 8-bit-per-channel, 4-channel interleaved buffer.

```
func vImageMin_ARGBFFFF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImagePixelCount, vImageFlags) -> vImage_Error
```

Minimizes an 8-bit-per-channel, 4-channel interleaved buffer.

## See Also

### Convolution and Morphology

{ } Blurring an image

Filter an image by convolving it with custom and high-speed kernels.

{ } Adding a bokeh effect to images

Simulate a bokeh effect by applying dilation.

:≡ Convolution

Apply a convolution kernel to an image.