

## ☰ Documentation

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### API Collection

# Image scaling

Scale interlaced and planar images.

## Topics

### Planar Image Scaling

```
func vImageScale_Planar8(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales an 8-bit planar image to fit a destination buffer.

```
func vImageScale_Planar16U(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales an unsigned 16-bit planar image to fit a destination buffer.

```
func vImageScale_Planar16S(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales a signed 16-bit planar image to fit a destination buffer.

```
func vImageScale_Planar16F(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales a floating-point 16-bit planar image to fit a destination buffer.

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

Scales a 32-bit planar image to fit a destination buffer.

### Interleaved Image Scaling

```
func vImageScale_CbCr8(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales an 8-bit-per-channel, 2-channel interleaved image to fit a destination buffer.

```
func vImageScale_CbCr16U(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales an unsigned 16-bit-per-channel, 2-channel interleaved image to fit a destination buffer.

```
func vImageScale_CbCr16F(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales a floating-point 16-bit-per-channel, 2-channel interleaved image to fit a destination buffer.

```
func vImageScale_ARGB8888(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales an 8-bit-per-channel, 4-channel interleaved image to fit a destination buffer.

```
func vImageScale_ARGB16U(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales an unsigned 16-bit-per-channel, 4-channel interleaved image to fit a destination buffer.

```
func vImageScale_ARGB16S(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales a signed 16-bit-per-channel, 4-channel interleaved image to fit a destination buffer.

```
func vImageScale_ARGB16F(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales a floating-point 16-bit-per-channel, 4-channel interleaved image to fit a destination buffer.

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

Scales a 32-bit-per-channel, 4-channel interleaved image to fit a destination buffer.

```
func vImageScale_XRGB2101010W(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, vImage_Flags) -> vImage_Error
```

Scales a 2-bit alpha, 10-bit RGB interleaved image to fit a destination buffer.

# See Also

## Applying geometric transforms to image buffers

### Resampling in vImage

Learn how vImage resamples image data during geometric operations.

### Applying affine transformations to images

Translate, rotate, and scale images.

### Applying projective transformations to images

Warp images in three dimensions.

### Image reflection

Reflect images horizontally and vertically.

### Image shearing

Shear images horizontally and vertically.

### Image rotation

Rotate images by arbitrary angles or by multiples of 90 degrees.

### Getting the Buffer Size

Calculate the size of the temporary buffer needed by a high-level geometry functions.