Accelerate / ··· / vImage Operations / Applying affine transformations to images

API Collection

Applying affine transformations to images

Translate, rotate, and scale images.

Topics

Single-Precision Affine Transformation

```
func vImageAffineWarp_Planar8(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform>, Pixel_8, vImage_Flags) -> vImage_Error
```

Applies a single-precision affine transformation to an 8-bit planar image.

```
func vImageAffineWarp_PlanarF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform>, Pixel_F, vImage_Flags) -> vImage_Error
```

Applies a single-precision affine transformation to a 32-bit planar image.

```
func vImageAffineWarp_ARGB16U(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform>, UnsafePointer<UInt16>!, vImage_Flags) -> vImage_Error
```

Applies a single-precision affine transformation to an unsigned 16-bit-per-channel, 4-channel interleaved image.

```
func vImageAffineWarp_ARGB16S(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform>, UnsafePointer<Int16>!, vImage_Flags) -> vImage_Error
```

Applies a single-precision affine transformation to a signed 16-bit-per-channel, 4-channel interleaved image.

```
func vImageAffineWarp_ARGB8888(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform>, UnsafePointer<UInt8>!, vImage_Flags) -> vImage_Error
```

Applies a single-precision affine transformation to an 8-bit-per-channel, 4-channel interleaved image.

```
func vImageAffineWarp_ARGBFFFF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform>, UnsafePointer<Float>!, vImage_Flags) -> vImage_Error
```

Applies a single-precision affine transformation to a 32-bit-per-channel, 4-channel interleaved image.

```
func vImageAffineWarp_ARGB16F(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform>, UnsafePointer<UInt16>!, vImage_Flags) -> vImage_Error
```

```
func vImageAffineWarp_CbCr16F(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform>, UnsafePointer<UInt16>!, vImage_Flags) -> vImage_Error
```

```
func vImageAffineWarp_Planar16F(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform>, Pixel_16F, vImage_Flags) -> vImage_Error
```

Double-Precision Affine Transformation

```
func vImageAffineWarpD_Planar8(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform_Double>, Pixel_8, vImage_Flags) -> vImage_Error
```

Applies a double-precision affine transformation to an 8-bit planar image.

```
func vImageAffineWarpD_PlanarF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform_Double>, Pixel_F, vImage_Flags) -> vImage_Error
```

Applies a double-precision affine transformation to a 32-bit planar image.

```
func vImageAffineWarpD_Planar16F(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform_Double>, Pixel_16F, vImage_Flags) -> vImage_Error
```

Applies a double-precision affine transformation to a floating-point 16-bit planar image.

```
func vImageAffineWarpD_CbCr16F(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform_Double>, UnsafePointer<UInt16>!, vImage_Flags) -> vImage_Error
```

Applies a double-precision affine transformation to a floating-point 16-bit-per-channel, 2-channel interleaved image.

```
func vImageAffineWarpD_ARGB8888(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform_Double>, UnsafePointer<UInt8>!, vImage_Flags) -> vImage_Error
```

Applies a double-precision affine transformation to an 8-bit-per-channel, 4-channel interleaved image.

```
func vImageAffineWarpD_ARGB16U(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform_Double>, UnsafePointer<UInt16>!, vImage_Flags) -> vImage_Error
```

Applies a double-precision affine transformation to an unsigned 16-bit-per-channel, 4-channel interleaved image.

```
func vImageAffineWarpD_ARGB16S(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform_Double>, UnsafePointer<Int16>!, vImage_Flags) -> vImage_Error
```

Applies a double-precision affine transformation to a signed 16-bit-per-channel, 4-channel interleaved image.

```
func vImageAffineWarpD_ARGB16F(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform_Double>, UnsafePointer<UInt16>!, vImage_Flags) -> vImage_Error
```

Applies a double-precision affine transformation to a floating-point 16-bit-per-channel, 4-channel interleaved image.

```
func vImageAffineWarpD_ARGBFFFF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_AffineTransform_Double>, UnsafePointer<Float>!, vImage_Flags) -> vImage_Error
```

Applies a double-precision affine transformation to a 32-bit-per-channel, 4-channel interleaved image.

Core Graphics Affine Transformation

```
func vImageAffineWarpCG_Planar8(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_CGAffineTransform>, Pixel_8, vImage_Flags) -> vImage_Error
```

Applies a Core Graphics affine transformation to a Planar8 source image.

```
func vImageAffineWarpCG_PlanarF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_CGAffineTransform>, Pixel_F, vImage_Flags) -> vImage_Error
```

Applies a Core Graphics affine transformation to a PlanarF source image.

```
func vImageAffineWarpCG_ARGB16U(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_CGAffineTransform>, UnsafePointer<UInt16>!, vImage_Flags) -> vImage_Error
```

Applies a Core Graphics affine transformation to an ARGB16U source image.

```
func vImageAffineWarpCG_ARGB16S(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_CGAffineTransform>, UnsafePointer<Int16>!, vImage_Flags) -> vImage_Error
```

Applies a Core Graphics affine transformation to an ARGB16S source image.

```
func vImageAffineWarpCG_ARGB8888(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_CGAffineTransform>, UnsafePointer<UInt8>!, vImage_Flags) -> vImage_Error
```

Applies a Core Graphics affine transformation to an ARGB8888 source image.

```
func vImageAffineWarpCG_ARGBFFFF(UnsafePointer<vImage_Buffer>, UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafePointer<vImage_CGAffineTransform>, UnsafePointer<Float>!, vImage_Flags) -> vImage_Error
```

Applies a Core Graphics affine transformation to an ARGBFFFF source image.

See Also

Applying geometric transforms to image buffers

Resampling in vImage

Learn how vImage resamples image data during geometric operations.

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.

Image scaling

Scale interlaced and planar images.

Getting the Buffer Size

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