Function

vImageConvert_Planar8toPlanar1(_:_:_:_:_:)

Converts an 8-bit planar buffer to a 1-bit planar buffer.

iOS 7.0+ | iPadOS 7.0+ | Mac Catalyst 13.1+ | macOS 10.9+ | tvOS 7.0+ | visionOS 1.0+ | watchOS 1.0+

```swift
func vImageConvert_Planar8toPlanar1(
    _ src: UnsafePointer<vImage_Buffer>,
    _ dest: UnsafePointer<vImage_Buffer>,
    _ tempBuffer: UnsafeMutableRawPointer!,
    _ dither: Int32,
    _ flags: vImage_Flags
) -> vImage_Error
```

Parameters

src

The source vImage buffer.

dest

A pointer to the destination vImage buffer structure. You're responsible for filling out the height, width, and rowBytes fields of this structure, and for allocating a data buffer of the appropriate size. On return, the data buffer this structure points to contains the destination image data. When you no longer need the data buffer, deallocate the memory to prevent memory leaks.

tempBuffer

A pointer to a temporary buffer. If you pass nil, the function allocates the buffer and then deallocates it before returning. Alternatively, you can allocate the buffer yourself, in which

case you're responsible for deallocating it when you no longer need it.

dither
    The dithering algorithm.

flags
    The options to use when performing the operation. If your code implements its own tiling or its own multithreading, pass `kvImageDoNotTile`; otherwise, pass `kvImageNoFlags`.

Return Value

`kvImageNoError`; otherwise, one of the error codes in Data Types and Constants.

Discussion

This function supports the following dithering algorithms:

`kvImageConvert_DitherNone`
    Doesn't apply any dithering. This algorithm rounds the input values to the nearest representable value in the destination format.

`kvImageConvert_DitherOrdered`
    Adds precomputed blue noise to the source image before it rounds the input values to the nearest representable value in the destination format. The vImage conversion functions support uniform and Gaussian noise by including `kvImageConvert_OrderedUniform Blue` and `kvImageConvert_OrderedGaussianBlue`, respectively.

`kvImageConvert_DitherOrderedReproducible`
    Returns the same result as `kvImageConvert_DitherOrdered` but uses the same offset into the blue noise for each call.

`kvImageConvert_DitherFloydSteinberg`
    Applies Floyd-Steinberg dithering to the image.

`kvImageConvert_DitherAtkinson`
    Applies Atkinson dithering to the image.

See Also

Related Documentation

{}   Improving the quality of quantized images with dithering

Apply dithering to simulate colors that are unavailable in reduced bit depths.

Converting from 8-bit buffers

```
func vImageConvert_Planar8toPlanar2(UnsafePointer<vImage_Buffer>,
UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, Int32, vImage
_Flags) -> vImage_Error
```

Converts an 8-bit planar buffer to a 2-bit planar buffer.

```
func vImageConvert_Planar8toPlanar4(UnsafePointer<vImage_Buffer>,
UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, Int32, vImage
_Flags) -> vImage_Error
```

Converts an 8-bit planar buffer to a 4-bit planar buffer.

```
func vImageConvert_Planar8toIndexed1(UnsafePointer<vImage_Buffer>,
UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafeMutable
Pointer<Pixel_8>, Int32, vImage_Flags) -> vImage_Error
```

Converts an 8-bit planar buffer to an indexed 1-bit planar buffer.

```
func vImageConvert_Planar8toIndexed2(UnsafePointer<vImage_Buffer>,
UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafeMutable
Pointer<Pixel_8>, Int32, vImage_Flags) -> vImage_Error
```

Converts an 8-bit planar buffer to an indexed 2-bit planar buffer.

```
func vImageConvert_Planar8toIndexed4(UnsafePointer<vImage_Buffer>,
UnsafePointer<vImage_Buffer>, UnsafeMutableRawPointer!, UnsafeMutable
Pointer<Pixel_8>, Int32, vImage_Flags) -> vImage_Error
```

Converts an 8-bit planar buffer to an indexed 4-bit planar buffer.

```
func vImageConvert_Planar8To16U(UnsafePointer<vImage_Buffer>, Unsafe
Pointer<vImage_Buffer>, vImage_Flags) -> vImage_Error
```

Converts an 8-bit planar buffer to an unsigned 16-bit planar buffer.