# TIFFReadRGBAStrip

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## NAME

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|  | TIFFReadRGBAStrip − read and decode an image strip into a fixed-format raster |

## SYNOPSIS

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|  | **#include <tiffio.h>**  **#define TIFFGetR(abgr) ((abgr) & 0xff)**  **#define TIFFGetG(abgr) (((abgr) >> 8) & 0xff)**  **#define TIFFGetB(abgr) (((abgr) >> 16) & 0xff)**  **#define TIFFGetA(abgr) (((abgr) >> 24) & 0xff)**  **int TIFFReadRGBAStrip(TIFF \****tif***, uint32** *row***, uint32 \****raster***)** |

## DESCRIPTION

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|  | *TIFFReadRGBAStrip* reads a single strip of a strip-based image into memory, storing the result in the user supplied RGBA *raster*. The raster is assumed to be an array of width times rowsperstrip 32-bit entries, where width is the width of the image (TIFFTAG\_IMAGEWIDTH) and rowsperstrip is the maximum lines in a strip (TIFFTAG\_ROWSPERSTRIP).  The *row* value should be the row of the first row in the strip (strip \* rowsperstrip, zero based).  Note that the raster is assume to be organized such that the pixel at location (*x*,*y*) is *raster*[*y*\**width*+*x*]; with the raster origin in the *lower-left hand corner* of the strip. That is bottom to top organization. When reading a partial last strip in the file the last line of the image will begin at the beginning of the buffer.  Raster pixels are 8-bit packed red, green, blue, alpha samples. The macros *TIFFGetR*, *TIFFGetG*, *TIFFGetB*, and *TIFFGetA* should be used to access individual samples. Images without Associated Alpha matting information have a constant Alpha of 1.0 (255).  See the *TIFFRGBAImage*(3TIFF) page for more details on how various image types are converted to RGBA values. |

## NOTES

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|  | Samples must be either 1, 2, 4, 8, or 16 bits. Colorimetric samples/pixel must be either 1, 3, or 4 (i.e. *SamplesPerPixel* minus *ExtraSamples*).  Palette image colormaps that appear to be incorrectly written as 8-bit values are automatically scaled to 16-bits.  *TIFFReadRGBAStrip* is just a wrapper around the more general *TIFFRGBAImage*(3TIFF) facilities. It’s main advantage over the similar *TIFFReadRGBAImage()* function is that for large images a single buffer capable of holding the whole image doesn’t need to be allocated, only enough for one strip. The *TIFFReadRGBATile()* function does a similar operation for tiled images. |

## RETURN VALUES

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|  | 1 is returned if the image was successfully read and converted. Otherwise, 0 is returned if an error was encountered. |

## DIAGNOSTICS

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|  | All error messages are directed to the *TIFFError*(3TIFF) routine.  **Sorry, can not handle %d-bit pictures**. The image had *BitsPerSample* other than 1, 2, 4, 8, or 16.  **Sorry, can not handle %d-channel images**. The image had *SamplesPerPixel* other than 1, 3, or 4.  **Missing needed "PhotometricInterpretation" tag**. The image did not have a tag that describes how to display the data.  **No "PhotometricInterpretation" tag, assuming RGB**. The image was missing a tag that describes how to display it, but because it has 3 or 4 samples/pixel, it is assumed to be RGB.  **No "PhotometricInterpretation" tag, assuming min-is-black**. The image was missing a tag that describes how to display it, but because it has 1 sample/pixel, it is assumed to be a grayscale or bilevel image.  **No space for photometric conversion table**. There was insufficient memory for a table used to convert image samples to 8-bit RGB.  **Missing required "Colormap" tag**. A Palette image did not have a required *Colormap* tag.  **No space for tile buffer**. There was insufficient memory to allocate an i/o buffer.  **No space for strip buffer**. There was insufficient memory to allocate an i/o buffer.  **Can not handle format**. The image has a format (combination of *BitsPerSample*, *SamplesPerPixel*, and *PhotometricInterpretation*) that *TIFFReadRGBAImage* can not handle.  **No space for B&W mapping table**. There was insufficient memory to allocate a table used to map grayscale data to RGB.  **No space for Palette mapping table**. There was insufficient memory to allocate a table used to map data to 8-bit RGB. |

## SEE ALSO

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|  | **TIFFOpen**(3TIFF), **TIFFRGBAImage**(3TIFF), **TIFFReadRGBAImage**(3TIFF), **TIFFReadRGBATile**(3TIFF), **libtiff**(3TIFF)  Libtiff library home page: **http://www.simplesystems.org/libtiff/** |