

NAME

TIFFReadScanline – read and decode a scanline of data from an open TIFF file

SYNOPSIS

```
#include <tiffio.h>
```

```
int TIFFReadScanline(TIFF *tif, tdata_t buf, uint32 row, tsample_t sample)
```

DESCRIPTION

Read the data for the specified row into the (user supplied) data buffer *buf*. The data are returned decompressed and, in the native byte- and bit-ordering, but are otherwise packed (see further below). The buffer must be large enough to hold an entire scanline of data. Applications should call the routine *TIFFScanlineSize* to find out the size (in bytes) of a scanline buffer. The *row* parameter is always used by *TIFFReadScanline*; the *sample* parameter is used only if data are organized in separate planes (*PlanarConfiguration*=2).

NOTES

The library attempts to hide bit- and byte-ordering differences between the image and the native machine by converting data to the native machine order. Bit reversal is done if the *FillOrder* tag is opposite to the native machine bit order. 16- and 32-bit samples are automatically byte-swapped if the file was written with a byte order opposite to the native machine byte order,

In C++ the *sample* parameter defaults to 0.

RETURN VALUES

TIFFReadScanline returns -1 if it detects an error; otherwise 1 is returned.

DIAGNOSTICS

All error messages are directed to the *TIFFError*(3TIFF) routine.

Compression algorithm does not support random access. Data was requested in a non-sequential order from a file that uses a compression algorithm and that has *RowsPerStrip* greater than one. That is, data in the image is stored in a compressed form, and with multiple rows packed into a strip. In this case, the library does not support random access to the data. The data should either be accessed sequentially, or the file should be converted so that each strip is made up of one row of data.

BUGS

Reading subsampled YCbCr data does not work correctly because, for *PlanarConfiguration*=2 the size of a scanline is not calculated on a per-sample basis, and for *PlanarConfiguration*=1 the library does not unpack the block-interleaved samples; use the strip- and tile-based interfaces to read these formats.

SEE ALSO

TIFFOpen(3TIFF), **TIFFReadEncodedStrip**(3TIFF), **TIFFReadRawStrip**(3TIFF), **libtiff**(3TIFF)

Libtiff library home page: <http://www.simplesystems.org/libtiff/>