

**NAME**

TIFFGetBitRevTable, TIFFReverseBits, TIFFSwabShort, TIFFSwabLong, TIFFSwabArrayOfShort, TIFFSwabArrayOfLong - byte- and bit-swapping routines

**SYNOPSIS**

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

```
const unsigned char* TIFFGetBitRevTable(int reversed)
void TIFFReverseBits(u_char *data, unsigned long nbytes)
void TIFFSwabShort(uint16_t *data)
void TIFFSwabLong(uint32_t *data)
void TIFFSwabArrayOfShort(uint16_t *data, unsigned long nshorts)
void TIFFSwabArrayOfLong(uint32_t *data, unsigned long nlongs)
```

**DESCRIPTION**

The following routines are used by the library to swap 16- and 32-bit data and to reverse the order of bits in bytes.

*TIFFSwabShort* and *TIFFSwabLong* swap the bytes in a single 16-bit and 32-bit item, respectively. *TIFFSwabArrayOfShort* and *TIFFSwabArrayOfLong* swap the bytes in an array of 16-bit and 32-bit items, respectively.

*TIFFReverseBits* replaces each byte in *data* with the equivalent bit-reversed value. This operation is performed with a lookup table, which is returned using the *TIFFGetBitRevTable* function. *reversed* parameter specifies which table should be returned. Supply *1* if you want bit reversal table. Supply *0* to get the table that do not reverse bit values. It is a lookup table that can be used as an *identity function*; i.e. *TIFFNoBitRevTable[n] == n*.

**DIAGNOSTICS**

None.

**SEE ALSO**

**libtiff(3TIFF)**

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