

**NAME**

`TIFFTileSize`, `TIFFTileRowSize`, `TIFFVTileSize`, `TIFFDefaultTileSize`, `TIFFComputeTile`, `TIFFCheckTile`, `TIFFNumberOfTiles` - tile-related utility routines

**SYNOPSIS**

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

```
void TIFFDefaultTileSize(TIFF *tif, uint32_t *tw, uint32_t *th)
tsize_t TIFFTileSize(TIFF *tif)
tsize_t TIFFTileRowSize(TIFF *tif)
tsize_t TIFFVTileSize(TIFF *tif, uint32_t nrows)
ttile_t TIFFComputeTile(TIFF *tif, uint32_t x, uint32_t y, uint32_t z, tsample_t sample)
int TIFFCheckTile(TIFF *tif, uint32_t x, uint32_t y, uint32_t z, tsample_t sample)
ttile_t TIFFNumberOfTiles(TIFF *tif)
```

**DESCRIPTION**

`TIFFDefaultTileSize` returns the pixel width and height of a reasonable-sized tile; suitable for setting up the *TileWidth* and *TileLength* tags. If the *tw* and *th* values passed in are non-zero, then they are adjusted to reflect any compression-specific requirements. The returned width and height are constrained to be a multiple of 16 pixels to conform with the TIFF specification.

`TIFFTileSize` returns the equivalent size for a tile of data as it would be returned in a call to `TIFFReadTile` or as it would be expected in a call to `TIFFWriteTile`.

`TIFFVTileSize` returns the number of bytes in a row-aligned tile with *nrows* of data.

`TIFFTileRowSize` returns the number of bytes of a row of data in a tile.

`TIFFComputeTile` returns the tile that contains the specified coordinates. A valid tile is always returned; out-of-range coordinate values are clamped to the bounds of the image. The *x* and *y* parameters are always used in calculating a tile. The *z* parameter is used if the image is deeper than 1 slice (*ImageDepth*>1). The *sample* parameter is used only if data are organized in separate planes (*PlanarConfiguration*=2).

`TIFFCheckTile` returns a non-zero value if the supplied coordinates are within the bounds of the image and zero otherwise. The *x* parameter is checked against the value of the *ImageWidth* tag. The *y* parameter is checked against the value of the *ImageLength* tag. The *z* parameter is checked against the value of the *ImageDepth* tag (if defined). The *sample* parameter is checked against the value of the *SamplesPerPixel* parameter if the data are organized in separate planes.

*TIFFNumberOfTiles* returns the number of tiles in the image.

## DIAGNOSTICS

None.

## SEE ALSO

**TIFFReadEncodedTile(3TIFF)**, **TIFFReadRawTile(3TIFF)**, **TIFFReadTile(3TIFF)**,  
**TIFFWriteEncodedTile(3TIFF)**, **TIFFWriteRawTile(3TIFF)**, **TIFFWriteTile(3TIFF)**, **libtiff(3TIFF)**

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