**TIFF CHANGE INFORMATION**

**Current Version**: v3.9.0beta  
**Previous Version**: [v3.8.2](http://docs.google.com/v3.8.2.html)  
**Master FTP Site**:  [download.osgeo.org](ftp://download.osgeo.org/libtiff), directory pub/libtiff  
**Master HTTP Site**: <http://www.simplesystems.org/libtiff/>

This document describes the changes made to the software between the *previous* and *current* versions (see above). If you don't find something listed here, then it was not done in this timeframe, or it was not considered important enough to be mentioned. The following information is located here:

* [Major Changes](#tyjcwt)
* [Changes in the software configuration](#30j0zll)
* [Changes in libtiff](#1fob9te)
* [Changes in the tools](#3znysh7)
* [Changes in the contrib area](#2et92p0)

**MAJOR CHANGES:**

* New **tiffcrop** utility contributed by Richard Nolde. **tiffcrop** does the same as **tiffcp**, but also can crop, extract, rotate and mirror images.
* tif\_jbig.c: Added support for JBIG compression scheme (34661 code), contributed by Lee Howard.
* Totally new implementation of OJPEG module from Joris Van Damme. No need to patch libjpeg anymore. Many OJPEG files should be supported now that was not supported previously.

**CHANGES IN THE SOFTWARE CONFIGURATION:**

* tif\_config.wince.h, tiffconf.wince.h, tif\_wince.c: WinCE-specific compatibility stuff from Mateusz Loskot.
* Rename config.h.vc and tif\_config.h.vc to config.vc.h and tif\_config.vc.h for easier identification by folks using an IDE.
* configure, configure.ac: OJPEG support enabled by default (i.e., whe the conformant JPEG support enabled).
* README.vms, Makefile.am, configure.com, libtiff/{Makefile.am, tif\_config.h-vms, tif\_stream.cxx, tif\_vms.c, tiffconf.h-vms}: Added support for OpenVMS by Alexey Chupahin.
* nmake.opt: use /EHsc for VS2005 compatibility. Also define \_CRT\_SECURE\_NO\_DEPRECATE to avoid noise on VS2005.

**CHANGES IN LIBTIFF:**

* tif\_dirinfo.c (\_TIFFFindFieldInfo): Don't attempt to bsearch() on a NULL fieldinfo list. (\_TIFFFindFieldInfoByName): Don't attempt to lfind() on a NULL fieldinfo list.
* tif\_jpeg.c: Changed JPEGInitializeLibJPEG() so that it will convert from decompressor to compressor or compress to decompress if required by the force arguments. This works around a problem in where the JPEGFixupTestSubsampling() may cause a decompressor to be setup on a directory when later a compressor is required with the force flag set. Occurs with the addtiffo program for instance.
* tif\_dirwrite.c: Fixed swapping of byte arrays stored in-place in tag offsets as per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1363>
* tif\_getimage.c: workaround for 'Fractional scanline' error reading OJPEG images with rowsperstrip that is not a multiple of vertical subsampling factor. This bug is mentioned in <http://bugzilla.remotesensing.org/show_bug.cgi?id=1390> and <http://www.asmail.be/msg0054766825.html>
* tif\_dirread.c: Added special function to handle SubjectDistance EXIF tag as per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1362>
* tif\_dirread.c, tif\_read.c: Type of the byte counters changed from tsize\_t to uint32 to be able to work with data arrays larger than 2GB. Fixes bug  [http://bugzilla.remotesensing.org/show\_bug.cgi?id=89](http://bugzilla.remotesensing.org/show_bug.cgi?id=890) Idea submitted by Matt Hancher.
* tif\_dir.c: Workaround for incorrect TIFFs with ExtraSamples == 999 produced by Corel Draw. As per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1490>
* tif\_write.c: TIFFAppendToStrip() - clear sorted flag if we move a strip. <http://bugzilla.remotesensing.org/show_bug.cgi?id=1359>
* tif\_fax3.c: Save the state of printdir codec dependent method.
* tif\_jpeg.c: Save the state of printdir codec dependent method as per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1273>
* tif\_win32.c: Fixed problem with offset value manipulation as per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1322>
* tif\_fax3.c, tif\_next.c, tif\_pixarlog.c: Fixed multiple vulnerabilities, as per Gentoo bug (): <http://bugs.gentoo.org/show_bug.cgi?id=142383>
* tif\_lzw.c, tif\_zip.c: Fixed problems with mixing encoding and decoding on the same read-write TIFF handle. The LZW code can now maintain encode and decode state at the same time. The ZIP code will switch back and forth as needed. <http://bugzilla.remotesensing.org/show_bug.cgi?id=757>
* tif\_msdos.c: Avoid handle leak for failed opens. c/o Thierry Pierron
* tif\_dirwrite.c: take care not to flush out buffer of strip/tile data in \_TIFFWriteDirectory if TIFF\_BEENWRITING not set. Relates to bug report by Peng Gao with black strip at bottom of images.
* tif\_dirwrite.c: make sure to use uint32 for wordcount in TIFFWriteNormanTag if writecount is VARIABLE2 for ASCII fields. It already seems to have been done for other field types. Needed for "tiffset" on files with geotiff ascii text.
* tif\_dirinfo.c: Added missed EXIF tag ColorSpace (40961).
* tif\_dirread.c: Move IFD fetching code in the separate function TIFFFetchDirectory() avoiding code duplication in TIFFReadDirectory() and TIFFReadCustomDirectory().
* tif\_readdir.c: Added case in EstimateStripByteCounts() for tiled files. Modified TIFFReadDirectory() to not invoke EstimateStripByteCounts() for case where entry 0 and 1 are unequal but one of them is zero. <http://bugzilla.remotesensing.org/show_bug.cgi?id=1204>
* tif\_open.c, tif\_dirread.c, tiffiop.h: Move IFD looping checking code in the separate function TIFFCheckDirOffset().
* tif\_aux.c: Added \_TIFFCheckRealloc() function.
* tif\_fax3.c: Fixed problems in fax decoder as per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1194>
* tif\_jbig.c: Added support for JBIG compression scheme (34661 code) contributed by Lee Howard. As per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=896>
* tif\_getimage.c: Added support for planarconfig separate non-subsampled YCbCr (i.e. separate YCbCr with subsampling [1,1]).
* tif\_getimage.c: Revision of all RGB(A) put routines:
  + Conversion of unassociated alpha to associated alpha now done with more performant LUT, and calculation more correct.
  + Conversion of 16bit data to 8bit data now done with more performant LUT, and calculation more correct
  + Bugfix of handling of 16bit RGB with unassociated alpha
* tif\_ojpeg.c: totally new implementation
* tif\_getimage.c: removed TIFFTAG\_JPEGCOLORMODE handling of OJPEG images in favor of tif\_getimage.c native handling of YCbCr and desubsampling.
* tif\_jpeg.c: JPEGVSetField() so that altering the photometric interpretation causes the "upsampled" flag to be recomputed. Fixes peculiar bug where photometric flag had to be set before jpegcolormode flag.

**CHANGES IN THE TOOLS:**

* tiff2ps.c: Added support 16-bit images as per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1566>. Patch from William Bader.
* tiff2pdf.c: Fix for TIFFTAG\_JPEGTABLES tag fetching and significant upgrade of the whole utility as per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1560>. Now we don't need tiffiop.h in tiff2pdf anymore and will open output PDF file using TIFFClientOpen() machinery as it is implemented by Leon Bottou.
* tiffcrop.c: New tiffcrop utility contributed by Richard Nolde. As per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1383>
* tiff2pdf.c: Do not assume inches when the resolution units do not specified. As per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1366>
* tiffset.c: Properly handle tags with TIFF\_VARIABLE writecount. As per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1350>
* tif2rgba.c: This utility does not work properly on big-endian architectures. It was fixed including the bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1149>
* tiff2pdf.c: Fix handling of -q values. <http://bugzilla.remotesensing.org/show_bug.cgi?id=587>
* tiffcmp.c: Fixed floating point comparison logic as per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1191>
* tiff2pdf.c: Fixed buffer overflow condition in t2p\_write\_pdf\_string() as per bug <http://bugzilla.remotesensing.org/show_bug.cgi?id=1196>

**CHANGES IN THE CONTRIB AREA:**

* contrib/addtiffo/tif\_overview.c: Fix problems with odd sized output blocks in TIFF\_DownSample\_Subsampled() (bug 1542).
* contrib/dbs/xtiff/xtiff.c: Make xtiff utility compilable. Though it is still far from the state of being working and useful.

Last updated $Date: 2016-09-25 20:05:46 $.