

GPS Tags

These GPS tags are part of the EXIF standard, and are stored in a separate IFD within the EXIF information.

ExifTool is very flexible about the input format when writing lat/long coordinates, and will accept from 1 to 3 floating point numbers (for decimal degrees, degrees and minutes, or degrees, minutes and seconds) separated by just about anything, and will format them properly according to the EXIF specification.

Some GPS tags have values which are fixed-length strings. For these, the indicated string lengths include a null terminator which is added automatically by ExifTool. Remember that the descriptive values are used when writing (eg. 'Above Sea Level', not '0') unless the print conversion is disabled (with '-n' on the command line or the PrintConv option in the API, or by suffixing the tag name with a # character).

When adding GPS information to an image, it is important to set all of the following tags: GPSTimeStamp, GPSTimeStampRef, GPSTimeStampOffset, GPSTimeStampRef, and GPSTimeStampOffset and GPSTimeStampRef if the altitude is known. ExifTool will write the required GPSVersionID tag automatically if new a GPS IFD is added to an image.

Tag ID	Tag Name	Writable	Values / Notes
0x0000	GPSVersionID	int8u[4]:	
0x0001	GPSTimeStampRef	string[2]	(tags 0x0001-0x0006 used for camera location according to MWG 2.0. ExifTool will also accept a number when writing GPSTimeStampRef, positive for north latitudes or negative for south, or a string ending in N or S) 'N' = North 'S' = South
0x0002	GPSTimeStamp	rational64u[3]	
0x0003	GPSTimeStampRef	string[2]	(ExifTool will also accept a number when writing this tag, positive for east longitudes or negative for west, or a string ending in E or W) 'E' = East 'W' = West
0x0004	GPSTimeStamp	rational64u[3]	
0x0005	GPSTimeStampRef	int8u	(ExifTool will also accept a signed number when writing this tag, beginning with "+" for above sea level, or "-" for below) 0 = Above Sea Level 1 = Below Sea Level
0x0006	GPSTimeStamp	rational64u	
0x0007	GPSTimeStamp	rational64u[3]	(UTC time of GPS fix. When writing, date is stripped off if present, and time is adjusted to UTC if it includes a timezone)

0x0008 GPSSatellites	string	
0x0009 GPSStatus	string[2]	'A' = Measurement Active 'V' = Measurement Void
0x000a GPSMeasureMode	string[2]	2 = 2-Dimensional Measurement 3 = 3-Dimensional Measurement
0x000b GPSDOP	rational64u	
0x000c GPSSpeedRef	string[2]	'K' = km/h 'M' = mph 'N' = knots
0x000d GPSSpeed	rational64u	
0x000e GPSTrackRef	string[2]	'M' = Magnetic North 'T' = True North
0x000f GPSTrack	rational64u	
0x0010 GPSImgDirectionRef	string[2]	'M' = Magnetic North 'T' = True North
0x0011 GPSImgDirection	rational64u	
0x0012 GPSMapDatum	string	
0x0013 GPSTDestLatitudeRef	string[2]	(tags 0x0013-0x001a used for subject location according to MWG 2.0) 'N' = North 'S' = South
0x0014 GPSTDestLatitude	rational64u[3]	
0x0015 GPSTDestLongitudeRef	string[2]	'E' = East 'W' = West
0x0016 GPSTDestLongitude	rational64u[3]	
0x0017 GPSTDestBearingRef	string[2]	'M' = Magnetic North 'T' = True North
0x0018 GPSTDestBearing	rational64u	
0x0019 GPSTDestDistanceRef	string[2]	'K' = Kilometers 'M' = Miles 'N' = Nautical Miles
0x001a GPSTDestDistance	rational64u	
0x001b GPSProcessingMethod	undef	(values of "GPS", "CELLID", "WLAN" or "MANUAL" by the EXIF spec.)
0x001c GPSAreaInformation	undef	
0x001d GPSDateStamp	string[11]	(when writing, time is stripped off if present, after adjusting date/time to UTC if time includes a timezone. Format is YYYY:mm:dd)
0x001e GPSDifferential	int16u	0 = No Correction 1 = Differential Corrected
0x001f GPSHPositioningError	rational64u	

(This document generated automatically by Image::ExifTool::BuildTagLookup)

Last revised Jul 7, 2017

[<-- ExifTool Tag Names](#)