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: GPSLatitude, GPSLatitudeRef, GPSLongitude, GPSLongitudeRef, and GPSAltitude and GPSAltitudeRef 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	GPSLatitudeRef	string[2]	(tags 0x0001-0x0006 used for camera location according to MWG 2.0. ExifTool will also accept a number when writing GPSLatitudeRef, positive for north latitudes or negative for south, or a string containing N, North, S or South) 'N' = North 'S' = South
0x0002	GPSLatitude	rational64u[3]	
0x0003	GPSLongitudeRef	string[2]	(ExifTool will also accept a number when writing this tag, positive for east longitudes or negative for west, or a string containing E, East, W or West) 'E' = East 'W' = West
0x0004	GPSLongitude	rational64u[3]	
0x0005	GPSAltitudeRef	int8u	(ExifTool will also accept number when writing this tag, with negative numbers indicating below sea level) 0 = Above Sea Level 1 = Below Sea Level
0x0006	GPSAltitude	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	GPSDestLatitudeRef	string[2]	(tags 0x0013-0x001a used for subject location according to MWG 2.0)

			'N' = North 'S' = South
0x0014	GPSDestLatitude	rational64u[3]	
0x0015	GPSDestLongitudeRef	string[2]	'E' = East 'W' = West
0x0016	GPSDestLongitude	rational64u[3]	
0x0017	GPSDestBearingRef	string[2]	'M' = Magnetic North 'T' = True North
0x0018	GPSDestBearing	rational64u	
0x0019	GPSDestDistanceRef	string[2]	'K' = Kilometers 'M' = Miles 'N' = Nautical Miles
0x001a	GPSDestDistance	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)
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<-- ExifTool Tag Names