

What is JPhotoGeoTagger?

JPhotoGeoTagger is a command line tool (Open Source, GPL) which embeds location information to digital images/photos from location and time information recorded by a GPS device: It takes a GPX file and matches the timestamp of the coordinates (lat/lon/ele, WGS84) with the time information of images in JPEG format (either EXIF header or modify time of the data file). There is no loss of image quality.

JPhotoGeoTagger uses MediaUtil (<http://mediachest.sourceforge.net/mediautil/>) to manipulate JPEGs and Exif Headers, so I want to thank the authors of this fine library Dmitry Rogatkin and Suresh Mahalingam.

Usages

Usage 1: tag a single Image

```
java -jar JPhotoGeoTaggerVX.Y.Z --JPEG=/home/someuser/someimage.jpeg --GPX=/home/someuser/sometrack.gpx
```

Usage 2: tag all Images in a Directory

```
java -jar JPhotoGeoTaggerVX.Y.Z --JPEG=/home/someuser/imagedirectory --GPX=/home/someuser/sometrack.gpx
```

Usage 3: tag all Images in a Directory merging multiple track files

```
java -jar JPhotoGeoTaggerVX.Y.Z --JPEG=/home/someuser/imagedirectory --GPX=/home/someuser/trackdirectory
```

You can also combine these behaviours, e.g. use one photo an directory of gpx files.

Advanced Usages

Adv. Usage 1: Add/Subt. a time value from your Photos before comparing

```
java -jar JPhotoGeoTaggerVX.Y.Z --JPEG=/home/someuser/imagedirectory --GPX=/home/someuser/sometrack.gpx --TimeShift=-2d4h3m
```

This is usefull if the time set in the camera was not correct while taking your photos. Just calculate the difference to the real time (e.g. by comparing your cameras current time with an accurate watch) and use the --TimeShift parameter to add or subtract the difference from your photos. You may use the modifiers d, h, m and s to represent a day, hour, minute and second.

Examples:

```
--TimeShift=5d3h  
adds 5 days and 3 hours to the time recorded in the photo(s) before comparing
```

```
--TimeShift=-5d3h  
subtracts 5 days and 3 hours from the time recorded in the photo(s) before comparing
```

```
--TimeShift=123211  
adds 123211 ms (milliseconds) to the photo before comparing
```

```
--TimeShift=-123211  
subtracts 123211 ms from the photo before comparing
```

Adv. Usage 2: Specify a maximum Time Delta

```
java -jar JPhotoGeoTaggerVX.Y.Z --JPEG=/home/someuser/someimage.jpeg --GPX=/home/someuser/sometrack.gpx --maxTimeDelta=5m
```

If you want to prevent JPhotoGeoTagger from tagging an image if there is no gpx Track Point recorded shortly before/after the image was taken, use the `--maxTimeDelta` parameter. It makes JPhotoGeoTagger only tag an image if there was a Track Point recorded this long before/after the image was taken. The parameter expects ms (Milliseconds), but you may use the same time modifiers as in the `TimeShift` parameter (d, h, m...).

Adv. Usage 3: Fallback to the Image File's Date if there is no Creation Date

```
java -jar JPhotoGeoTaggerVX.Y.Z --JPEG=/home/someuser/someimage.jpeg --GPX=/home/someuser/sometrack.gpx --useModifyTime
```

Normally, when JPhotoGeoTagger finds no Creation Date in the Exif Headers, an image no gets tagged. With this Option enabled, when JPhotoGeoTagger finds no Creation Date, it uses the Modify (!) Date of the file instead.

Adv. Usage 4: write the Coordinates to the Image

```
java -jar JPhotoGeoTaggerVX.Y.Z --JPEG=/home/someuser/someimage.jpeg --GPX=/home/someuser/sometrack.gpx --writeGPStoImage=true
```

This writes the GPS Coordinates (Lat/Lon/Ele) to the actual Image itself. The default is a white Arial 12 pt. Font, and the lower right Corner.

You can adjust this by using the following Parameters:

<code>--textFont=Fontname</code>	sets the Font, this may be the Name of any Font on your System (e.g. Arial)
<code>--textSize=Fontsize</code>	sets the Size of the Font
<code>--textRed=0-255</code>	sets the red portion of the Image, an decimal value between 0 and 255
<code>--textGreen=0-255</code>	sets the green portion of the Image, an decimal value between 0 and 255
<code>--textBlue=0-255</code>	sets the blue portion of the Image, an decimal value between 0 and 255
<code>--textPosition =</code>	TOP_LEFT or TOP_RIGHT or BOTTOM_LEFT or BOTTOM_RIGHT