

Picture Instruments

SMART GPS SYNC



Manual



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The screenshot shows the SMART GPS SYNC application window. Callout 1 points to the 'DROP IMAGES & FOLDERS HERE' area. Callout 2 points to the 'GPS' icon in the top toolbar. Callout 3 points to the 'GPS' icon in the 'Load GPX' section. The interface includes a list of loaded photos with their recording dates and GPS tags, a 'Load GPX' section with a file path and 'Max. time diff.' setting, and a 'Remove GPS data from all files' button.

Photo	Recording Date	GPS Tag
_DSF0230.JPG	27.07.2017 - 15:55:34 UTC+02:00	G 51.055706, 6.933867
_DSF0230.RAF	27.07.2017 - 15:55:34 UTC+02:00	G 51.055706, 6.933867
IMG_3725.JPG	27.07.2017 - 15:55:39 UTC+02:00	← 51.055683, 6.933900
_DSF0231.RAF	27.07.2017 - 15:58:12 UTC+02:00	↑ 51.040100, 6.959119
_DSF0231.JPG	27.07.2017 - 15:58:12 UTC+02:00	← 51.040100, 6.959119
IMG_3726.JPG	27.07.2017 - 15:58:16 UTC+02:00	← 51.038556, 6.961017
_DSF0232.JPG	27.07.2017 - 16:01:56 UTC+02:00	G 51.039722, 6.981874
_DSF0232.RAF	27.07.2017 - 16:01:56 UTC+02:00	G 51.039722, 6.981874
IMG_3727.JPG	27.07.2017 - 16:02:20 UTC+02:00	← 51.039756, 6.981794
_DSF0233.RAF	27.07.2017 - 16:06:08 UTC+02:00	G 51.040321, 6.992407
_DSF0233.JPG	27.07.2017 - 16:06:08 UTC+02:00	G 51.040321, 6.992407

Smart GPS Sync allows you to transfer GPS data from single photos (shot with a smartphone for example) from a GPX file or specific latitude and longitude data to any number of photos without GPS tag.

Load Photos

1 To open single photos or entire folder you can drag them onto the black area. You can alternatively open those photos via the folder icon. To clear the list simply click on the circular arrow.

Transmission Modes

2 A smartphone photo containing a GPS tag has been taken before a series of photos.

If various images with and without GPS data are loaded into the program the GPS data of the first photo containing such data will be transferred to all following photos until the next photo which contains GPS data appears in the list and so on. If the list contains photos, which were shot before the first photo containing GPS data, they will not be assigned a GPS tag. In this case we recommend a different transmission mode. You can also load these images separately.

3 A smartphone photo containing a GPS tag has been taken after a series of photos.

This transmission mode is similar to the previous one with the exception that GPS data from smartphone photos will only be transmitted to photos that were taken before said photo. In this case it is possible that photos, which were shot at the very end of a timeframe, may remain without a GPS tag.

SMART GPS SYNC

Manual

The screenshot shows the SMART GPS SYNC application window. Callout 1 points to the 'DROP IMAGES & FOLDERS HERE' area. Callout 2 points to the 'Recording Date' column in the file list. Callout 3 points to the 'GPS' radio button in the transmission mode selection area.

Photo	Recording Date	GPS Tag
_DSF0230.JPG	27.07.2017 - 15:00:00 UTC+02:00	G 51.055706, 6.933867
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IMG_3725.JPG	27.07.2017 - 15:00:00 UTC+02:00	← 51.055683, 6.933900
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3

1 Obtain GPS data from the nearest photo.

In this transmission mode every photo without GPS tag will receive GPS data from the image containing GPS data (i.e. smartphone photo) which is chronologically closest to it.

Time Limit

2 If you have only taken photos sporadically during a trip we recommend you set a time limit. This will only allow GPS data to be extracted from smartphone-photos, which have been shot certain number of minutes before or after. An empty field or the value "null" will deactivate the time limit.



All three transmission modes depend on the shooting date stored in the EXIF file. If no EXIF data is available the creation date of the file will be used.

Latitude and Longitude

3 If you don't have any photo containing GPS data at hand you can define a geotag by specifically setting the latitude and longitude instead of using the transmission mode under point 2.



Attention: existing geotags will be overwritten in this mode. If the fields for latitude and longitude remain empty, the existing geotags will be deleted.

Latitude and longitude can be entered in the corresponding fields as decimal numbers or in degrees, minutes, seconds and cardinal points. This makes it easier to simply copy and paste this information from Google Maps, Bing Maps and/or other maps.

SMART GPS SYNC

Manual

The screenshot shows the SMART GPS SYNC application window. On the left, there's a 'DROP IMAGES & FOLDERS HERE' area. In the center, a diagram shows the workflow: images and folders are dropped into a 'TIME' box, which then connects to a 'GPS' box. Callout 1 points to the 'GPS' box. To the right of the diagram, there are input fields for 'Latitude' and 'Longitude' with example values. Below these is a 'Load GPX' section with a file browser showing a selected GPX file. Callout 2 points to the 'Load GPX' section. Below the file browser is a 'Max. time diff.' field set to '5 min.' and a 'Remove GPS data from all files' button. Callout 3 points to the 'Remove GPS data from all files' button. At the bottom, there is a table with three columns: 'Photo', 'Recording Date', and 'GPS Tag'.

Photo	Recording Date	GPS Tag
_DSF0230.JPG	27.07.2017 - 15:55:34 UTC+02:00	G 51.055706, 6.933867
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IMG_3727.JPG	27.07.2017 - 16:02:20 UTC+02:00	← 51.039756, 6.981794
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4

Load GPX file

1 In this mode all GPS records from the selected GPX file will be loaded and to every image without any GPS information the entry in the file that is closest in time will be assigned.



Technically speaking a GPX file is just an XML file that can contain GPS tags including the corresponding time stamp in UTC (coordinated world time without time zone). These GPS tags will be combined into one file as tracks or waypoints. Should one GPX file contain more than one track or waypoints plus a track the relevant entries can be selected upon loading the file.

Time Limit GPX

2 If the images and the GPX track were not recorded at the same time it is recommended to set a time frame. This will limit the difference between the GPS tag and the time stamp to this time frame for transferring the GPS tag. An empty field or the value "null" will deactivate the time limit.



Not setting a time frame will allow for incorrect GPS data to be extracted from an unsuitable GPX track since the program will always try to match the entry closest in time.

Delete Geotags

3 This button will delete all geodata from all photos currently loaded. This operation cannot be undone.

SMART GPS SYNC

Manual

3

1

2

Picture Instruments
SMART GPS SYNC

Latitude
e.g. -19.178194
or 19°10'41.5"S

Longitude
e.g. 46.501221
or 46°30'4.4"E

Load GPX
Users/robin/Pictures/Trekking Tour/My GPS Track.gpx

Max. time diff. 5 min.

Remove GPS data from all files

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5

List View – Recording Date

1 Along with the recording date of the individual image the time zone will be displayed on the right side. If the corresponding IPTC field does not contain any time zone information the operating systems time zone will be used.



If the indicated time zone information is not correct, you can use our software Time Fix to correct the information.

List View – GPS Tag

2 The list displays all images loaded (both with and without GPS-tag). An arrow pointing left will appear in the right column next to those photos containing a GPS tag to display their GPS data. It indicates that the GPS data from this particular photo was used. In the case of photos without GPS data the GPS data that will be associated to them will be displayed according to the selected transmission mode. The small arrow will point in the direction of the photo from which the GPS data will be taken. If you chose to add geodata by entering latitude and longitude, a small "="-sign will appear before the geodata that will be assigned to the photo. A "?" marks all photos which cannot be assigned a GPS tag.

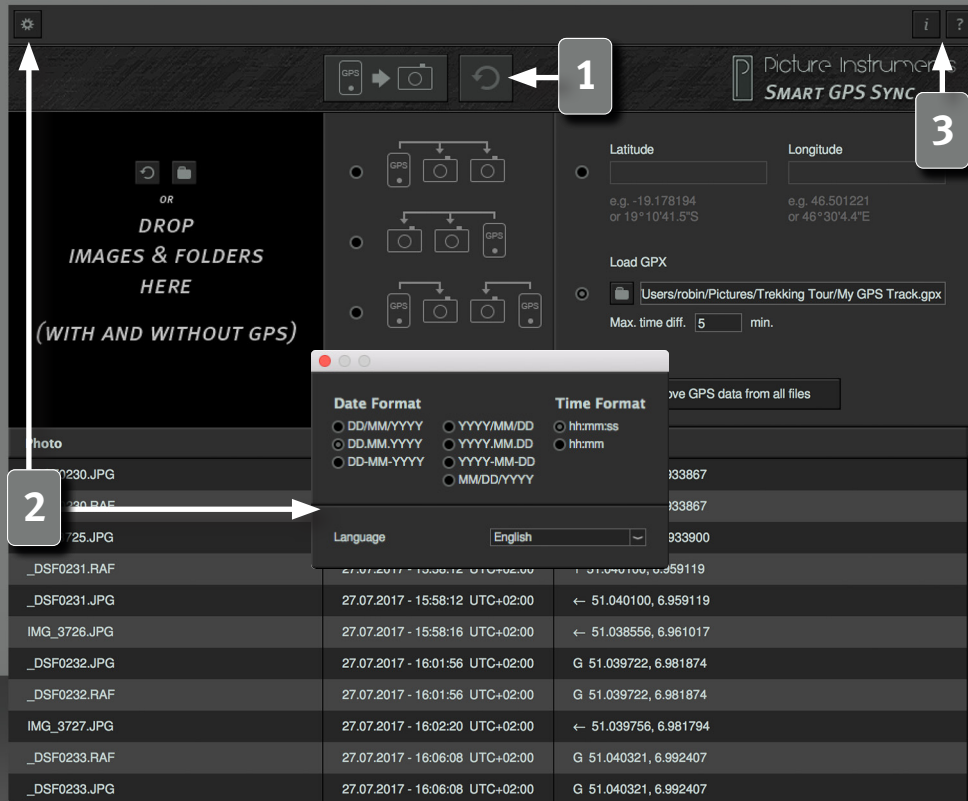
Images which have received their GPS tag from a GPX file will have a G in this spot.

Transfer Geodata

3 This button will transfer geodata as seen in the right column of the list and write it into the EXIF data of the respective photos.

SMART GPS SYNC

Manual



1 Use the undo button to the right to reverse any incorrect transmissions. The undo feature only works as long as the program has not been closed and no further geodata has been transmitted or deleted.

Settings

2 Here, the date and time format for the list view can be formatted. The language for the user interface can be selected via the drop down menu.

Information and Help

3 In the info window you can find more information on the version of Smart GPS Sync and the license you use.

The help window contains a link to our Smart GPS Sync tutorial videos as well as information on all shortcuts you can use to make your workflow more efficient.

Supported File Formats

3g2 , 3gp , 3gp2 , 3gpp , aax , ai , ait , apng , arw , ciff , cr2 , crw , cs1 , dcp , dng , dr4 , dvb , eps , eps2 , eps3 , epsf , erf , exif , exv , f4a , f4b , f4p , f4v , flif , gif , hdp , icc , icm , iiq , ind , indd , indt , inx , j2k , jng , jp2 , jpe , jpeg , jpf , jpg , jpm , jpx , jxr , m4a , m4b , m4p , m4v , mef , mie , mng , mos , mov , mp4 , mpo , mqv , mrw , nef , nrw , orf , pbm , pdf , pef , pgm , png , ppm , ps , ps2 , ps3 , psb , psd , psdt , qt , raf , raw , rw2 , rwl , sr2 , srw , thm , tif , tiff , vrd , wdp , x3f , xmp

More information and video-tutorials at:

www.picture-instruments.com

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