

DRAFT

Fixing Geotagging in Paintshop Pro

Background

If you are reading this, you are probably interested in how to get geotagging working in Paintshop Pro. Whilst it is not that difficult, there are quite a few steps to take and you need to know a bit about altering protected files in Windows.

This can't be a full tutorial for all experience levels so if you read something here that you don't understand, you may need to carry out a bit of research to enhance your knowledge.

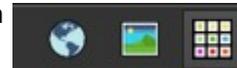
What is Geotagging?

Geotagging is about putting location information into the EXIF data in a photograph. This can be helpful for lots of reasons – e.g. finding photos of a particular place or pinning pictures to a map. It is all too easy to forget exactly where a picture was taken. The geotag can set the position very accurately.

The geotag is of the form 51°30'45.1"N 0°06'40.4"W or 51.512536, -0.111217.

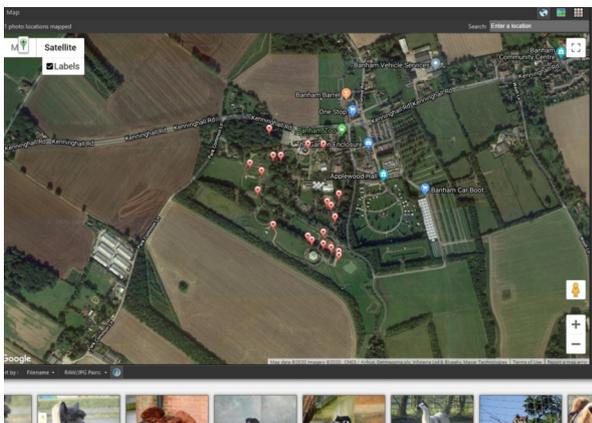
Camera phones and some cameras have GPS systems built in, other cameras can link to phones with GPS or attach to GPS devices so put in the geotag information automatically. Otherwise you have to use some software to add the geotag. Of course, the geotag inserted automatically is the place where the photo was taken, not necessarily the location of the subject matter. The geotag may need to be adjusted. You may also want to adjust or remove the geotag to keep locations private when publishing pictures.

In Paintshop Pro (versions ?? through to 2020) geotagging is built in. It makes use of Google Maps. A thumbnail of a photo with a geotag will have a pin showing in the bottom right-hand corner. When working properly, geotags can be displayed on a map. Geotags can be set by placing a pin on a map as well as typed in. The features can be found on the Manage tab, clicking on the globe icon.

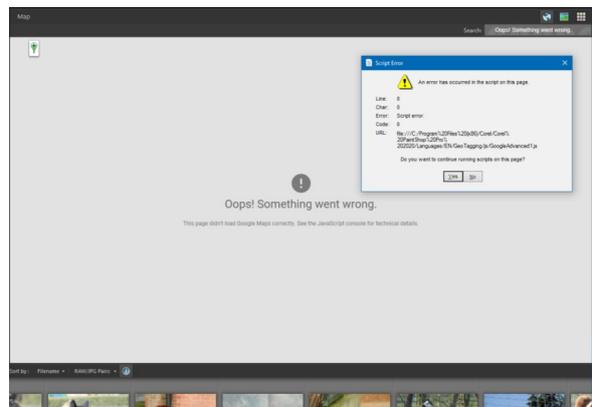


What has gone wrong?

It was working fully until December 2019 but since then the mapping facilities fail. The Manage window may look like this:-



Geotagging Working



Geotagging Broken

DRAFT

What went wrong? Apart from the Corel PSP code calling an old version of the Google Mapping application (giving a warning), Google appears to be refusing to respond to the Corel identifier submitted in the map load request. If a personal identifier is substituted for the Corel one, the mapping works.

You can see the error reported by Google if you open a particular file in a web browser (see section Looking for the errors in a Web Browser Consoles below).

Getting the geotagging working again involves replacing the Corel identifier with your own “key” which you have to get from Google.

If your copy of PSP is working – great!. If it is broken, **first of all complain to Corel Support**. This is important as unless the matter is given importance, nothing will happen.

Warning

The fix for geotagging has risks. Corel will give no support and it is possible to break your copy of Paintshop Pro. Please read the instructions below and then answer the following questions:-

1. Is geotagging broken in your copy of PSP?
2. Have you reported it to Corel Support?
3. Do you know if you have the 32 bit, 64 bit or both versions of PSP?
4. Are you happy giving Google your credit/debit card details?
5. Do you have administrator privileges for Windows (or know the password)?
6. Do you know what is involved in altering files in the Program Files or Program Files(86) directories?
7. Do you have a text editor – Notepad or better still, Notepad++?
8. Do you have attention to detail?
9. Do you have patience?
10. Do you still want to fix geotagging?

If the answer to **any** question above is “no”, I advise you to leave PSP as it is and hope for a Corel fix sooner than later. Otherwise, carry on and be brave!

Preparation

1. The text editor. NOTEPAD, standard in Windows, is OK but NOTEPAD++ (do a search for it on the internet) is much, much better as it understands HTML and JavaScript (as well of loads of other computer languages), providing different colours for comments, indentation, highlighting tag pairs in HTML and so on. NOTEPAD++ is great for editing PSP macro scripts which are based on Python.
2. Grab your credit or debit card; it’s used to sign up for the Google map service. It is very, very unlikely that you will ever be charged anything for geotagging. Google may already have the card details if you have Google Pay on your phone.
3. Establish if the Windows account (login) you use has administrator privileges. Standard accounts are safer but you will be asked for an administrator password when making changes to files in the Program Files directory.
4. Read the instructions and read them again.
5. Decide if you want to fix the 32 bit or 64 bit or both versions of PSP. I suggest you choose the one you use most and leave the other. You can always test if Corel have fixed their end by running the unchanged version.
6. The task may take a while – make sure you have adequate time. It can be done in stages.
7. Keep notes of what you have done as you go along.

DRAFT

Setting up the Google Maps APIs

To Do:

- Explain charging structure and need to keep key private
- Setting up account, billing

Setting up a 'Project' in the Google Console

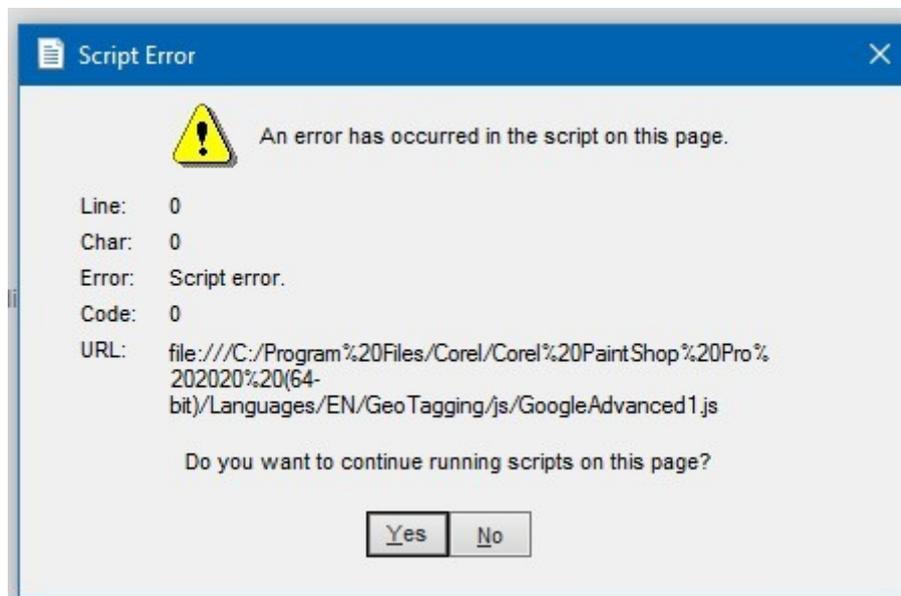
[To Do:] - needs expansion

- Create a 'Project'
- Create Credential
- Add APIs – Maps JavaScript, Places, Routes
- Apply HTTP only restriction to APIs but enable 3 above
- Navigate to appropriate place and copy API to clipboard

Making changes to files on your computer

In essence the fix for geotagging requires altering one line in each of two files buried in the files structure where the Corel PSP executable files are situated. When you alter the files, you will have to save then back to the same location and with exactly the same file name and extension. (Notepad sometimes tries to save everything as filename.txt. Notepad++ is better.)

Find where relevant PSP applications files are kept. This will vary. If you look at the Geotagging Script error message (see screenshot below), you will get a guide in the URL. The message comes from JavaScript and it uses '/' as directory separators rather than the '\ ' in Windows and also uses %20 to indicate a space.



In the case above it is showing the most usual place for (English Language) 64 Bit PSP 2020.

C:\Program Files\Corel\Corel PaintShop Pro 2020 (64-bit)\Languages\EN\GeoTagging\js

Based on this folder structure, the 2 files that need to be altered are:

DRAFT

..\EN\GeoTagging\GoogleAdvanced1.htm

and

..\EN\GeoTagging\js\GoogleSimple1.js

Make a backup copy of the two files (or the whole folder) and a working copy of the two files – in a convenient place such as an appropriately named folder in your Documents folder.

GoogleAdvanced1.htm

Do **not** double click on the files mentioned above. The default programs for opening them are not editors. You have to use 'Open With'.

Open the working copy of GoogleAdvanced1.htm in Notepad or Notepad++ and look for the following line (it is all one long line and appears folded over below to make it easier to read in this document):

```
<script type="text/javascript" src="http://maps.google.com/maps/api/js?  
client=gme-corelcorporation&channel=pspx2020.advanced1  
&v=3.26&sensor=true&libraries=places&language=en-US"></script>
```

Replace the portion starting **client=..** through **advanced1** with **key=** and your Google key

```
key=A1za.....u8
```

where **A1za.....u8** is your key (~39 characters long).

The new line should look like this

```
<script type="text/javascript" src="http://maps.google.com/maps/api/js?  
key=A1za.....u8&v=3.26&sensor=false&libraries=places&language=en-  
US"></script>
```

Obviously it is a good idea to copy and paste the key into the line. Be very careful to ensure all the characters are put in and there are no extra spaces between the key and the following &v3.26

Also I suggest you put a comment into the file to indicate what you have done. For example, and using the html comment format:

```
<!-- Replaced Corel client identifier with my own API key on 01 2020-02-05 -->
```

Save the working copy file.

GoogleSimple1.js

Similarly, open the GoogleSimple1.js file in Notepad++ and look for the line:

```
var otherParams = "client=gme-corelcorporation&channel=pspx2018.simple1&sensor=false&language=" +  
lang;
```

As may be expected

```
client=gme-corelcorporation&channel=pspx2018.simple1
```

must be changed to your key:

```
key=A1za.....u8
```

Again, take care not to introduce extra spaces and put a comment in the file (above the changed line) e.g.

```
//Replaced Corel client identifier with my Google Key 2020-02-05
```

```
var otherParams = "key=A1za.....u8&sensor=false&language=" + lang;
```

DRAFT

Now check and save the working copy.

If you use Notepad++, different colours appear for comments, var etc. This is very helpful.

The next step is to rename the original files in the Program Files folder to

..\EN\GeoTagging**OLDGoogleAdvanced1.htm**

and

..\EN\GeoTagging\js**OLDGoogleSimple1.js**

You will need administrator permissions to do this.

Now copy the amended working copy files to the appropriate folder as above. Again, administrator permissions will be needed.

Finally open each of the files in the Program Files\...\..\ and check that the changes are visible.

Testing

If possible, use browser to do a basic test – see Looking for the errors in a Web Browser Consoles

You should see a couple of warnings (i.e. about a retired version and sensor not being required) but no error message.

- Look at Google Console for success errors
- Explain where usage can be found
- If OK, try in PSP – including search and Places tab in the INFO panel of PSP/Manage
- Enjoy

Common Problems and Fixes

To Do:

- Info/Places tab not showing map (GoogleSimple1.js change)
- Searches not working (API and permissions)
- Permissions

Looking for the errors in a Web Browser Consoles

Double click on the GoogleAdvanced1.htm file in its normal place and open a console

Chrome	CTRL-Shift-j
Firefox	CTRL-Shift-j or CTRL-Shift-k
Edge	CTRL-Shift-j

The original files (with client=gme-corel...) gives and error. The two warning are not too important.

DRAFT

```
⚠ ▶ Google Maps JavaScript API warning: RetiredVersion https://dev util.js:231  
elopers.google.com/maps/documentation/javascript/error-messages#retired-vers  
ion  
⚠ ▶ Google Maps JavaScript API warning: SensorNotRequired https:// util.js:231  
developers.google.com/maps/documentation/javascript/error-messages#sensor-no  
t-required  
✖ ▶ Google Maps JavaScript API error: js?client=gme-corelc...s&language=en-US:67  
ClientBillingNotEnabledMapError  
https://developers.google.com/maps/documentation/javascript/error-messages#c  
lient-billing-not-enabled-map-error
```

When you have corrected it, you will still get the warnings.

Other Comments

Even if you are logged into Windows with standard privileges, you can edit the required files “in situ” by starting Notepad++ with Run as administrator.