

**Instructions for Exiftool to modify photo metadata from the command line.**

**Instructions for CWEBP to convert image files to WEBP format from the command line.**

# Exiftool & CWEBP contents (pt1)

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- What can EXIFTOOL read and write?
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- Read all GPS tags for an image
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- Delete all metadata for an image
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- Set DATES tags for EXIF, XMP and IPTC for an image
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- **Set TITLE tags for XMP and IPTC for an image**
- **Set DESCRIPTION tags for EXIF, XMP and IPTC for an image**
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# **Exiftool & CWEBP contents (pt3)**

- **Set CAPTION-WRITER tags for XMP and IPTC for an image**
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  - **Set GPS tags for XMP and EXIF for an image using DMS**
  - **Set GPS tags for XMP and EXIF for an image using DD**
  - **Desired EXIF, XMP & IPTC tags**
- 
- **How to install CWEBP on windows 10**
  - **How to Convert jpg to WEBP using CWEBP**

# How to install EXIFTOOL on windows 10

Video tutorial from [Mercia Solutions](https://www.youtube.com/watch?v=Ku1Nx-kl7RM) here: <https://www.youtube.com/watch?v=Ku1Nx-kl7RM>

1) Go to <https://www.exiftool.org/> and download the latest Windows Executable: [exiftool-12.38.zip](#)

## ExifTool by Phil Harvey

**Read, Write and Edit** Meta Information!

Also available --> [Utility to fix Nikon NEF images corrupted by Nikon software](#)

*Note: If exiftool.org goes down, it is because of the crappy DreamHost web hosting which disables an "unlimited traffic" web site if a single bot hammers the site with a moderate load. An alternate ExifTool homepage is available at <http://exiftool.sourceforge.net/>*

Installing	Tag Names	Resources	History	Forum	FAQ
<div>Download Version 12.38 (4.8 MB) - Dec. 20, 2021</div> <p>ExifTool is a platform-independent <a href="#">Perl library</a> plus a <a href="#">command-line application</a> for reading, writing and editing meta information in a <a href="#">wide variety of files</a>. ExifTool supports many different metadata formats including <a href="#">EXIF</a>, <a href="#">GPS</a>, <a href="#">IPTC</a>, <a href="#">XMP</a>, <a href="#">JFIF</a>, <a href="#">GeoTIFF</a>, <a href="#">ICC Profile</a>, <a href="#">Photoshop IRB</a>, <a href="#">FlashPix</a>, <a href="#">AFCP</a> and <a href="#">ID3</a>, <a href="#">Lyrics3</a>, as well as the maker notes of many digital cameras by <a href="#">Canon</a>, <a href="#">Casio</a>, <a href="#">DJI</a>, <a href="#">FLIR</a>, <a href="#">FujiFilm</a>, <a href="#">GE</a>, <a href="#">GoPro</a>, <a href="#">HP</a>, <a href="#">JVC/Victor</a>, <a href="#">Kodak</a>, <a href="#">Leaf</a>, <a href="#">Minolta/Konica-Minolta</a>, <a href="#">Motorola</a>, <a href="#">Nikon</a>, <a href="#">Nintendo</a>, <a href="#">Olympus/Epson</a>, <a href="#">Panasonic/Leica</a>, <a href="#">Pentax/Asahi</a>, <a href="#">Phase One</a>, <a href="#">Reconyx</a>, <a href="#">Ricoh</a>, <a href="#">Samsung</a>, <a href="#">Sanyo</a>, <a href="#">Sigma/Foveon</a> and <a href="#">Sony</a>.</p> <p>ExifTool is also available as a <b>stand-alone Windows executable</b> and a <b>MacOS package</b>: <i>(Note that these versions contain the executable only, and do not include the HTML documentation or other files of the full distribution above.)</i></p> <div>Windows Executable: <a href="#">exiftool-12.38.zip</a> (6.4 MB)</div> <p>The <b>stand-alone Windows executable</b> does not require Perl. Just download and un-zip the archive then double-click on "<a href="#">exiftool(-k).exe</a>" to read the application documentation, drag-and-drop files and folders to view meta information, or rename to "<a href="#">exiftool.exe</a>" for command-line use. Runs on all versions of Windows.</p> <p><i>(Note: Oliver Betz provides an <a href="#">alternate ExifTool Windows installer</a> that avoids some problems of the self-extracting archive version above. Please post <a href="#">here</a> if you have any problems/comments with this version.)</i></p> <div>MacOS Package: <a href="#">ExifTool-12.38.dmg</a> (3.1 MB)</div>					<a href="#">Features</a> <a href="#">User Comments</a> <a href="#">Supported File Types</a> <a href="#">System Requirements</a> <a href="#">Running ExifTool</a> <a href="#">Example Output</a> <a href="#">Tag Names Explained</a> <a href="#">Tag Groups</a> <a href="#">Writing Information</a> <a href="#">Writer Limitations</a> <a href="#">Known Problems</a> <a href="#">Security Issues</a> <a href="#">Date/Time Shift</a> <a href="#">Renaming Files</a> <a href="#">Performance</a> <a href="#">ExifTool Library</a> <a href="#">Additional Resources</a> <a href="#">New Discoveries</a> <a href="#">Acknowledgements</a> <a href="#">License</a> <a href="#">Donate</a> <a href="#">Contact Me</a>



The **MacOS package** installs the ExifTool command-line application and libraries in /usr/local/bin. After installing, type "[exiftool](#)" in a Terminal window to run exiftool and read the application documentation.

Activate Windows  
Go to Settings to activate Windows

2) Unzip and deposit the contents of the download into a newly created folder in **C:Program Files (x86)**. Name the Folder **Exiftool**. Once done this folder should contain the **exiftool(-k).exe**. Rename this to **exiftool**.

Program Files (x86)

File Home Share View

← → ↕ ↑

Program Files (x86)

Search Program Fi...

Name	Date modified	Type	Size
Common Files	18/11/2021 23:24	File folder	
Exif Pilot	06/07/2021 09:21	File folder	
Exiftool	05/01/2022 23:55	File folder	
ExifToolGUI	06/01/2022 19:43	File folder	
Google	10/01/2022 13:07	File folder	
Internet Explorer	18/09/2021 15:11	File folder	
Microsoft	01/07/2021 22:31	File folder	
Microsoft.NET	01/07/2021 15:40	File folder	
Mozilla Maintenance Service	30/12/2021 21:27	File folder	
Windows Defender	09/04/2021 15:47	File folder	
Windows Mail	16/07/2021 22:50	File folder	
Windows Media Player	15/10/2021 00:19	File folder	
Windows Multimedia Platform	07/12/2019 15:48	File folder	
Windows NT	07/12/2019 15:44	File folder	
Windows Photo Viewer	09/04/2021 15:47	File folder	
Windows Portable Devices	07/12/2019 15:48	File folder	

Exiftool

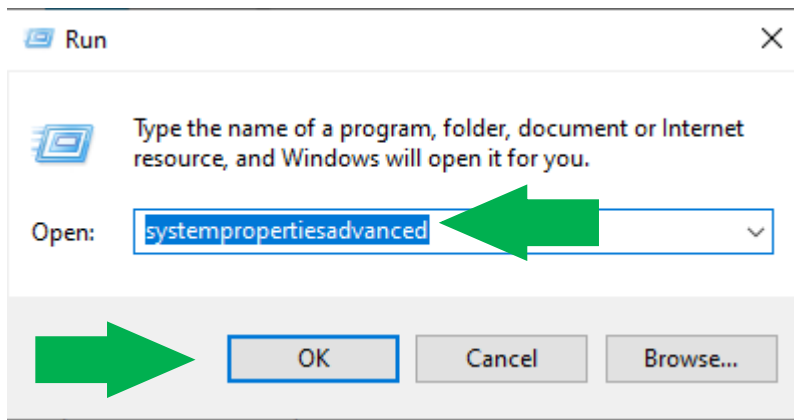
← → ↕ ↑

Local Disk (C:) > Program Files (x86) > Exiftool

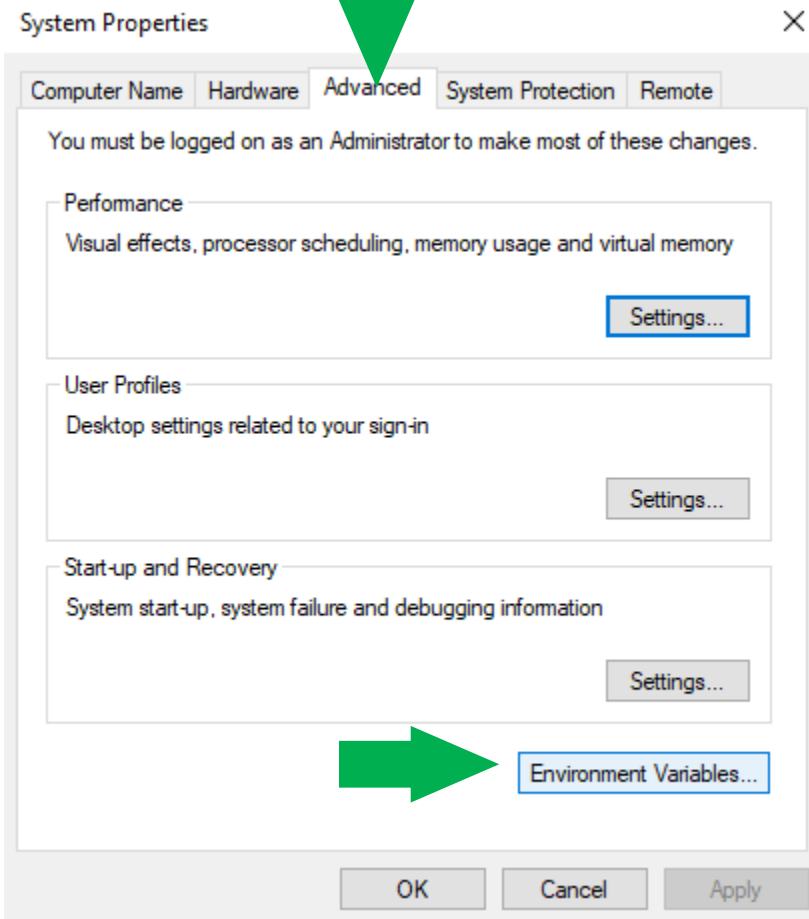
Search Exiftool

Name	Date modified	Type	Size
exiftool	05/01/2022 23:55	Application	8,653 KB

1 item

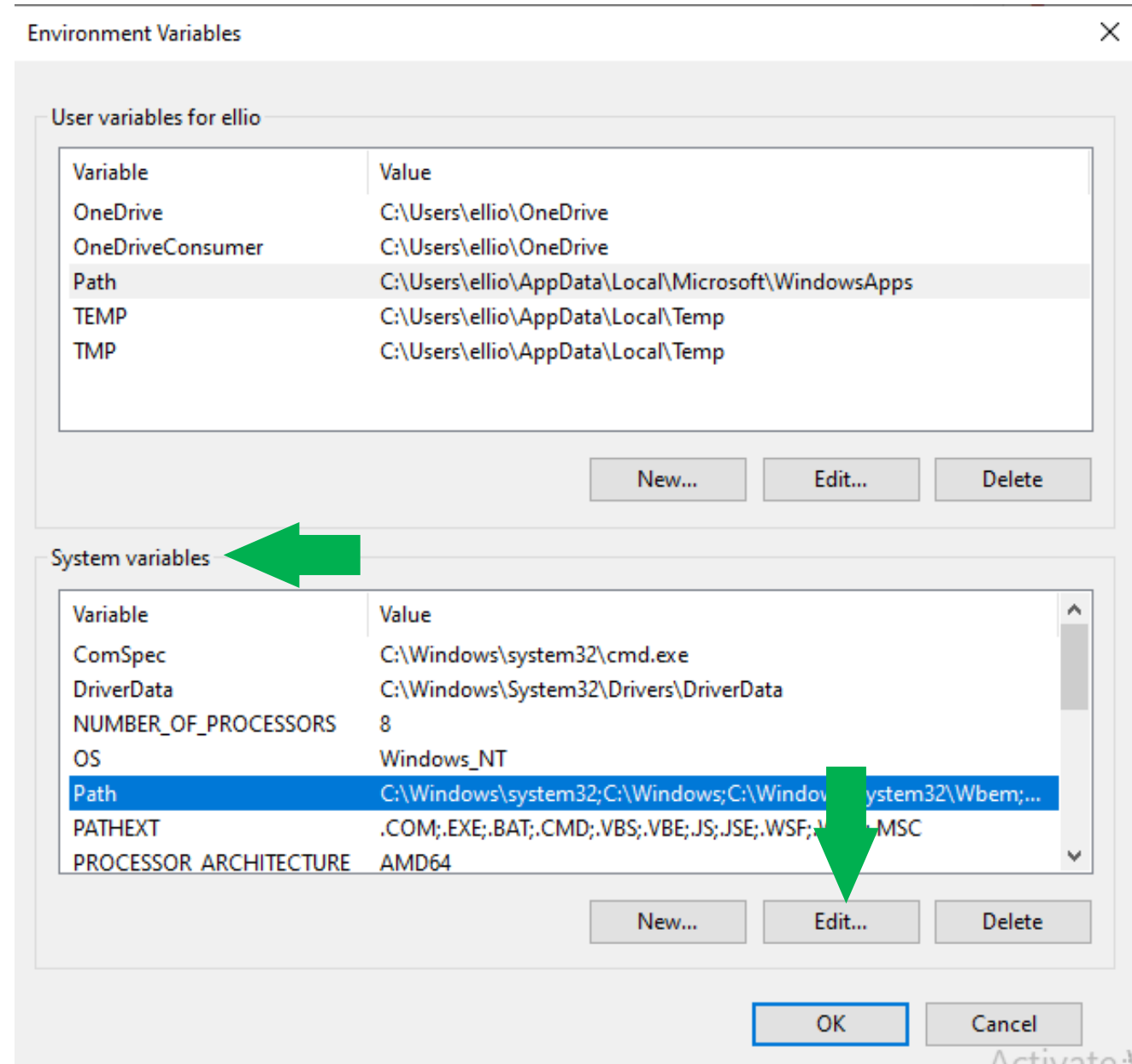


3) Press the **windows key + R** and type in “**systemPropertiesAdvanced**” select ok.



4) On the **advanced tab** click **Environmental Variables.**

5) In the **system variables** select **path** and click **edit.**



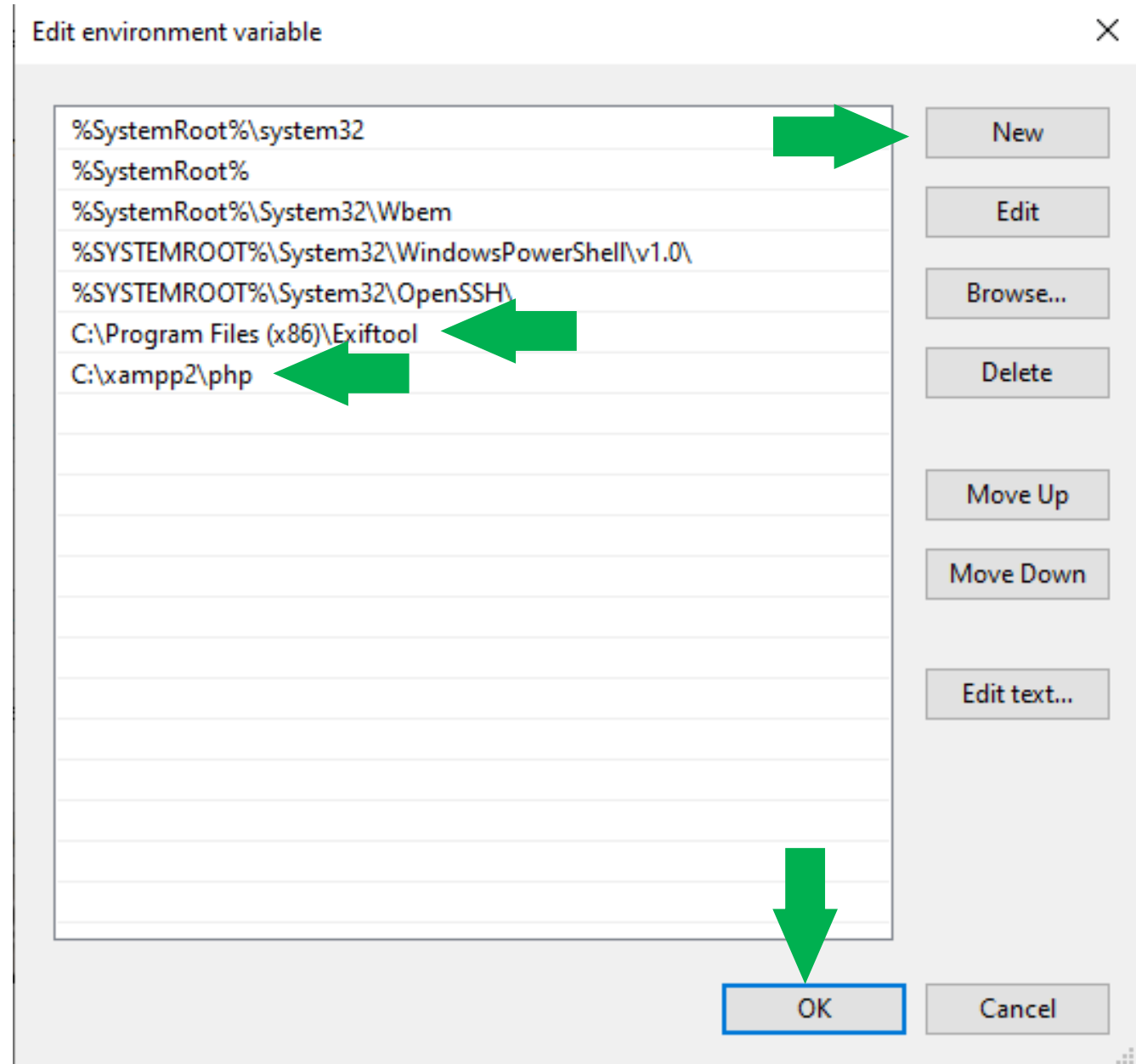
6) In the Edit environmental variables select new and type in the following path to the exiftool folder:

**C:\Program Files (x86)\Exiftool**

7) To allow php to access the local C drive where exif tool is installed also add a path from the xampp php folder.

**C:\xampp\php**

(note that in my case My xampp is called Xampp2 but normally it is just xampp.)





# What can EXIFTOOL read and write?

List all writeable tags: C:\Users\ellio>**exiftool -listw**

List all writeable tags in alphabetical order: C:\Users\ellio>**exiftool -listw list**

List all supported file types: C:\Users\ellio>**exiftool -listf**

List all tag groups: C:\Users\ellio>**exiftool -listg**

List all writeable file types: C:\Users\ellio>**exiftool -listwf**

List all PTC writeable tags: C:\Users\ellio> **exiftool -listw -iptc:all**

List all EXIF writeable tags: C:\Users\ellio> **exiftool -listw -exif:all**

List all FILE writeable tags: C:\Users\ellio> **exiftool -listw -file:all**

# EXIFTOOL read a file

Read all image tags for all files in a specific folder:

```
C:\Users\ellio>exiftool "C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesjpgFull\A0000" -a
```

```
Directory          : C:/xampp2/htdocs/lessons/99_BarcelonaTravelHacks/
Ver_90 - Photo metadata fixer/public_html/assets/galleryImagesjpgFull/A0000
```

```
File Size          : 342 KiB
File Modification Date/Time : 2022:01:06 01:23:17+01:00
File Access Date/Time      : 2022:01:06 16:12:48+01:00
File Creation Date/Time    : 2021:12:31 22:13:31+01:00
File Permissions         : -rw-rw-rw-
File Type             : JPEG
File Type Extension      : jpg
MIME Type             : image/jpeg
JFIF Version          : 1.01
Resolution Unit         : inches
X Resolution           : 72
Y Resolution           : 72
Exif Byte Order         : Little-endian (Intel, II)
Image Description        : charset=Ascii binary comment
Orientation            : Horizontal (normal)
X Resolution           : 72
Y Resolution           : 72
Resolution Unit         : inches
Software               : GIMP 2.10.30
Modify Date            : 2022:01:06 01:23:16
Artist                 : BarcelonaTravelHacks.com
Copyright              : BarcelonaTravelHacks.com
User Comment           : binary comment
```

Color Space	: sRGB
GPS Version ID	: 2.2.0.0
<b>GPS Latitude Ref</b>	: <b>North</b>
<b>GPS Latitude</b>	: <b>41 deg 24' 10.93"</b>
<b>GPS Longitude Ref</b>	: <b>East</b>
<b>GPS Longitude</b>	: <b>2 deg 10' 24.99"</b>
<b>GPS Altitude</b>	: <b>0 m</b>
GPS Map Datum	: WGS-84
Subfile Type	: Reduced-resolution image
Image Width	: 256
Image Height	: 192
Bits Per Sample	: 8 8 8
Compression	: JPEG (old-style)
Photometric Interpretation	: YCbCr
Samples Per Pixel	: 3
Thumbnail Offset	: 634
Thumbnail Length	: 15046
XMP Toolkit	: XMP Core 4.4.0-Exiv2
Model Release Status	: Limited or Incomplete Model Releases
Document ID	: gimp:docid:gimp:ac998bfb-7498-43a2-bde6-1600b99ce599
Instance ID	: xmp.iid:38b5657e-b2f4-421d-9ac9-fbd681448d39
Original Document ID	: xmp.did:66de40a9-f03e-4d90-9063-350e8bc759b4
Format	: image/jpeg
Api	: 2.0
Platform	: Windows
Time Stamp	: 1641428597485421
Version	: 2.10.30
Digital Source Type	: http://cv.iptc.org/newscodes/digitalsourcetype/softwareImage
Authors Position	: BarcelonaTravelHacks.com
Caption Writer	: BarcelonaTravelHacks.com
Credit	: BarcelonaTravelHacks.com
Date Created	: 2021:09:15, 2022:1:5, 2022:1:5, 2022:1:6, 2022:1:6
<b>Headline</b>	: <b>La Sagrada Famila Passion Facade</b>
<b>Source</b>	: <b><a href="https://www.barcelonatravelhacks.com/Attraction/A0001/La-Sagrada-Familia">https://www.barcelonatravelhacks.com/Attraction/A0001/La-Sagrada-Familia</a></b>



<b>Creator</b>	: <b>BarcelonaTravelHacks.com</b>
<b>Description</b>	: <b>La Sagrada Famila Passion Facade</b>
<b>Rights</b>	: <b>Copywrite 2022 BarcelonaTravelHacks.com</b>
<b>Subject</b>	: <b>spire   crane   sagrada familia   passion facade</b>
<b>Title</b>	: <b>La sagrada Familia</b>
Profile CMM Type	: Little CMS
Profile Version	: 4.3.0
Profile Class	: Display Device Profile
Color Space Data	: RGB
Profile Connection Space	: XYZ
Profile Date Time	: 2022:01:06 00:07:48
Profile File Signature	: acsp
Primary Platform	: Microsoft Corporation
CMM Flags	: Not Embedded, Independent
Device Manufacturer	:
Device Model	:
Device Attributes	: Reflective, Glossy, Positive, Color
Rendering Intent	: Perceptual
Connection Space Illuminant	: 0.9642 1 0.82491
Profile Creator	: Little CMS
Profile ID	: 0
Profile Description	: GIMP built-in sRGB
Profile Copyright	: Public Domain
Media White Point	: 0.9642 1 0.82491
Chromatic Adaptation	: 1.04788 0.02292 -0.05022 0.02959 0.99048 -0.01707 -0.00925 0.01508 0.75168
Red Matrix Column	: 0.43604 0.22249 0.01392
Blue Matrix Column	: 0.14305 0.06061 0.71393
Green Matrix Column	: 0.38512 0.7169 0.09706
Red Tone Reproduction Curve	: (Binary data 32 bytes, use -b option to extract)
Green Tone Reproduction Curve	: (Binary data 32 bytes, use -b option to extract)
Blue Tone Reproduction Curve	: (Binary data 32 bytes, use -b option to extract)
Chromaticity Channels	: 3
Chromaticity Colorant	: Unknown (0)
Chromaticity Channel 1	: 0.64 0.33002

Chromaticity Channel 2 : 0.3 0.60001  
Chromaticity Channel 3 : 0.15001 0.06  
Device Mfg Desc : GIMP  
Device Model Desc : sRGB  
Current IPTC Digest : 1c017ab0e358abde50b2fb141c5a5e87  
By-line : BarcelonaTravelHacks.com  
By-line Title : BarcelonaTravelHacks.com  
Caption-Abstract : La Sagrada Familia Passion Facade  
Copyright Notice : Copywrite 2022 BarcelonaTravelHacks.com  
Credit : BarcelonaTravelHacks.com  
Date Created : 2022-1-6  
Headline : La Sagrada Familia Passion Facade  
Keywords : spire | crane | sagrada familia | passion facade  
Object Name : La sagrada Familia  
Source : <https://www.barcelonatravelhacks.com/Attraction/A0001/La-Sagrada-Familia>  
Time Created : 01:23:16-01:23  
Urgency : 2  
Writer-Editor : BarcelonaTravelHacks.com  
Comment : charset=Ascii binary comment  
Image Width : 1000  
Image Height : 750  
Encoding Process : Progressive DCT, Huffman coding  
Bits Per Sample : 8  
Color Components : 3  
Y Cb Cr Sub Sampling : YCbCr4:4:4 (1 1)  
Image Size : 1000x750  
Megapixels : 0.750  
Thumbnail Image : (Binary data 15046 bytes, use -b option to extract)  
**GPS Latitude** : **41 deg 24' 10.93" N**  
**GPS Longitude** : **2 deg 10' 24.99" E**  
Date/Time Created : 2022-1-6 01:23:16-01:23  
Date/Time Original : 2022-1-6 01:23:16-01:23  
**GPS Position** : **41 deg 24' 10.93" N, 2 deg 10' 24.99" E**  
1 directories scanned  
1 image files read

# Read all image tags for EXIF group

```
C:\Users\ellio>exiftool -G -EXIF:all "C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90  
- Photo metadata fixer\public_html\assets\galleryImagesjpgFull\A0000"
```

```
===== C:/xampp2/htdocs/lessons/99_BarcelonaTravelHacks/Ver_90 - Photo metadata  
fixer/public_html/assets/galleryImagesjpgFull/A0000/A0000-01.jpg  
[EXIF]      Image Description           : charset=Ascii binary comment  
[EXIF]      Orientation                 : Horizontal (normal)  
[EXIF]      X Resolution                : 72  
[EXIF]      Y Resolution                : 72  
[EXIF]      Resolution Unit             : inches  
[EXIF]      Software                   : GIMP 2.10.30  
[EXIF]      Modify Date                 : 2022:01:06 01:23:16  
[EXIF]      Artist                     : BarcelonaTravelHacks.com  
[EXIF]      Copyright                  : BarcelonaTravelHacks.com  
[EXIF]      User Comment                : binary comment  
[EXIF]      Color Space                 : sRGB  
[EXIF]      GPS Version ID              : 2.2.0.0  
[EXIF]      GPS Latitude Ref            : North  
[EXIF]      GPS Longitude Ref           : East  
[EXIF]      GPS Altitude                : 0 m  
[EXIF]      GPS Map Datum               : WGS-84  
[EXIF]      Subfile Type                : Reduced-resolution image  
[EXIF]      Compression                : JPEG (old-style)  
[EXIF]      Photometric Interpretation  : YCbCr  
[EXIF]      Samples Per Pixel           : 3  
[EXIF]      Thumbnail Offset            : 634  
[EXIF]      Thumbnail Length            : 15046  
[EXIF]      Thumbnail Image             : (Binary data 15046 bytes, use -b option to extract)  
1 directories scanned  
1 image files read
```

# Read all GPS tags for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -G -*GPS* A0000-01.jpg
```

```
[EXIF]           GPS Version ID           : 2.3.0.0  
[EXIF]           GPS Longitude Ref        : East  
[Composite]      GPS Latitude             : 41 deg 24' 10.90" N  
[Composite]      GPS Longitude            : 2 deg 10' 25.00" E  
[Composite]      GPS Latitude Ref         : North  
[Composite]      GPS Position              : 41 deg 24' 10.90" N, 2 deg 10' 25.00" E
```



# Read all IPTC tags for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
-G -IPTC:all A0000-01.jpg
```

```
[IPTC]      By-line      : BarcelonaTravelHacks.com  
[IPTC]      Application Record Version : 4  
[IPTC]      Copyright Notice : Copywrite 2022 BarcelonaTravelHacks.com  
[IPTC]      Keywords      : spire,crane,sagrada familia,passion facade  
[IPTC]      Object Name    : La sagrada Familia  
[IPTC]      Caption-Abstract : La Sagrada Famila Passion Facade  
[IPTC]      Time Created   : 11:59:31+01:00  
[IPTC]      Date Created   : 2021:09:15
```

## Read all XMP tags for an image

```
C:\Users\ellio>exiftool -G -XMP:all "C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 -
Photo metadata fixer\public_html\assets\galleryImagesjpgFull\A0000"
```

```
===== C:/xampp2/htdocs/lessons/99_BarcelonaTravelHacks/Ver_90 - Photo metadata fixer/public_html/assets/
galleryImagesjpgFull/A0000/A0000-01.jpg
```

[illegible]

6c-a31d-032c56aa054e, xmp.iid:a196269a-7c02-4368-aac7-c28768b530e8, xmp.iid:32f8cf46-1e2c-4fb8-86f2-6af430a8b2b4, xmp.iid:f6454f50-a334-4ec9-8246-c154262be648, xmp.iid:b5ce72f5-0f83-41fa-8135-1cd384c4bb50, xmp.iid:8b102488-0564-428f-907c-dd61a781f57c, xmp.iid:8d01d801-ce1d-4eeb-b3a1-64dd3b79fe59, xmp.iid:cc8d7c3e-80ff-4e2e-a235-c8be315c99a7, xmp.iid:ff340622-b83e-4a18-be44-87be512ead80, xmp.iid:e81d82de-493f-48a9-96bc-a27620085db7, xmp.iid:dd858bf2-3cdf-414b-8794-e4ae0350dae3, xmp.iid:bf1e280a-acdb-4e22-8e6a-faf23109ef00, xmp.iid:deb12321-1179-4ef3-b4d5-32676f6bdc74, xmp.iid:8cc9de66-2bee-47e0-b7ec-3e7f136cbbd4, xmp.iid:5979f8a2-1f20-4dd7-9752-c5eeecbed49e, xmp.iid:cbafcf44-606d-4465-869b-06a322f79ad9, xmp.iid:6842ee0a-e7e0-43fe-8c70-3a6d74128517, xmp.iid:44e74ad8-24e6-424c-b0ed-6ae3c16e5b2f, xmp.iid:0995d7c4-d3ce-4e0f-afdc-1400808fa353, xmp.iid:020922a6-b48e-4c96-8711-a93c10d908c4, xmp.iid:ca87a30c-598a-4632-892a-88514877371d

```
[XMP] History Software Agent : Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10
(Windows), Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp
2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10 (Windows),
Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10 (Windows), Gimp 2.10
(Windows), Gimp 2.10 (Windows)
```

```
[XMP]                History When                : 2020:08:22 20:30:20, 2020:08:22 20:30:33, 2020:08:22 22:45:00,
2021:03:26 20:53:33, 2021:09:15 11:59:35, 2022:01:05 13:19:44, 2022:01:05 13:20:06, 2022:01:05 13:23:35, 2022:01:05
13:24:00, 2022:01:05 15:03:19, 2022:01:05 15:03:31, 2022:01:05 15:13:53, 2022:01:05 15:14:02, 2022:01:05 15:22:10,
2022:01:05 15:22:22, 2022:01:05 15:25:31, 2022:01:06 00:56:17, 2022:01:06 00:56:25, 2022:01:06 00:57:09, 2022:01:06
00:57:18, 2022:01:06 01:23:08, 2022:01:06 01:23:17
```

```
[XMP]          Contributor          : image/jpeg, image/jpeg, image/jpeg, image/jpeg, image/jpeg, image/jpeg,
image/jpeg, image/jpeg, image/jpeg, image/jpeg
```

[XMP] Creator : BarcelonaTravelHacks.com

[XMP]	Description	: La Sagrada Famila Passion Facade
-------	-------------	------------------------------------

[XMP] Rights : Copyright 2022 BarcelonaTravelHacks.com

```
[XMP]          Subject          : spire | crane | sagrada familia | passion facade
```

[XMP] Title : La sagrada Familia

```
1 directories scanned
```

```
1 image files read
```

# Delete all metadata for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -all= "A0000-01.jpg"
```

```
1 image files updated
```

# Set DATES tags for FILE metadata for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -FileCreateDate="2021:09:15 11:59:31" A0000-01.jpg
```

1 image files updated

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -FileModifyDate="2021:09:15 11:59:31" A0000-01.jpg
```

1 image files updated

# Set DATES tags for EXIF, XMP and IPTC for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -iptc:DateCreated="2021:09:15" A0000-01.jpg ←
```

1 image files updated

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -iptc:TimeCreated="11:59:31" A0000-01.jpg ←
```

1 image files updated

**Note 1:** Date and time are two separate fields for IPTC

**Note 2:** Exiftool automatically appends time with the Time zone i.e. +01:00 (based on system clock on your computer)

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -xmp:ModifyDate="2021:09:15 11:59:31" A0000-01.jpg
```

1 image files updated

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -exif:DateTimeOriginal="2021-09-15 11:59:31" A0000-01.jpg
```

1 image files updated

# Set all DATES tags for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -AllDates="2021:09:15 11:59:31" "A0000-01.jpg"
```

1 image files updated

# Show all DATES for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -alldates A0000-01.jpg
```

```
Date/Time Original      : 2021:09:15 11:59:31  
Create Date            : 2021:09:15 11:59:31  
Modify Date            : 2021:09:15 11:59:31
```

# Set ORIENTATION for XMP and IPTC for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -exif:Orientation="Horizontal (normal)" A0000-01.jpg
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -xmp:Orientation="Horizontal (normal)" A0000-01.jpg
```

# Set WEB STATEMENT for XMP for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -XMP-xmpRights:WebStatement="https://www.barcelonatravelhacks.com/Information/I0002/Terms-and-Conditions-  
BarcelonaTravelHacks" A0000-01.jpg
```

1 image files updated

# Set CREATOR tags for EXIF, XMP and IPTC for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -iptc:by-line="BarcelonaTravelHacks.com" A0000-01.jpg
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -xmp:creator="BarcelonaTravelHacks.com" A0000-01.jpg
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -exif:Artist="BarcelonaTravelHacks.com" A0000-01.jpg
```

# Set COPYRIGHT NOTICE tags for EXIF, XMP and IPTC for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -iptc:CopyrightNotice="Copyright 2022 BarcelonaTravelHacks.com" A0000-01.jpg
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -xmp:rights="Copyright 2022 BarcelonaTravelHacks.com" A0000-01.jpg
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -exif:Copyright="Copyright 2022 BarcelonaTravelHacks.com" A0000-01.jpg
```

# Set CREDIT tags for XMP and IPTC for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -iptc:credit="BarcelonaTravelHacks.com" A0000-01.jpg
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -xmp:credit="BarcelonaTravelHacks.com" A0000-01.jpg
```

## Set TITLE tags for XMP and IPTC for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -iptc:ObjectName="La sagrada Familia" A0000-01.jpg
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -xmp:Title="La sagrada Familia" A0000-01.jpg
```

## Set DESCRIPTION tags for EXIF, XMP and IPTC for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -iptc:Caption-Abstract="La Sagrada Famila Passion Facade" A0000-01.jpg
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -xmp:description="La Sagrada Famila Passion Facade" A0000-01.jpg
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -exif:ImageDescription="La Sagrada Famila Passion Facade" A0000-01.jpg
```

## Set SOURCE tags for XMP and IPTC for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -iptc:Source="www.barcelonatravelhacks.com" A0000-01.jpg
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -xmp:Source="www.barcelonatravelhacks.com" A0000-01.jpg
```



# Set CAPTION-WRITER tags for XMP and IPTC for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -xmp:CaptionWriter="BarcelonaTravelHacks.com" A0000-01.jpg
```

```
1 image files updated
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -iptc:By-lineTitle="Travel Blogger & coder" A0000-01.jpg
```

```
1 image files updated
```

# Set Authors-Position tags for XMP and IPTC for an image

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -xmp:AuthorsPosition="Travel Blogger & coder" A0000-01.jpg
```

```
1 image files updated
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -iptc:Writer-Editor="BarcelonaTravelHacks.com" A0000-01.jpg
```

```
1 image files updated
```

# Set GPS tags for XMP and EXIF for an image using DMS

## Method 1: Use DMS (degrees, Minutes & Seconds)

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -exif:gpslatitude="41 24 10.90" -exif:gpslatituderef=N A0000-01.jpg
```

```
1 image files updated
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -exif:gpslongitude="02 10 25.00" -exif:gpslongituderef=E A0000-01.jpg
```

```
1 image files updated
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -xmp:gpslatitude="41 24 10.90 N" A0000-01.jpg
```

```
1 image files updated
```

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
exiftool -gpslongitude="02 10 25.00 E" A0000-01.jpg
```

```
1 image files updated
```

# Set GPS tags for XMP and EXIF for an image using DD

## Method 2: Use DD (Decimal Degrees)

Note 1: Exiftool automatically converts DD to DMS to input GPS data into images

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>
exiftool -exif:gpslatitude="41.403035" -exif:gpslatituderef=N A0000-01.jpg
```

1 image files updated

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>
exiftool -exif:gpslongitude="2.173608" -exif:gpslongituderef=E A0000-01.jpg
```

1 image files updated

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>
exiftool -xmp:gpslatitude="41.403035 N" A0000-01.jpg
```

1 image files updated

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>
exiftool -gpslongitude="2.173608 E" A0000-01.jpg
```

1 image files updated

# Desired EXIF, XMP & IPTC tags

```
exiftool -iptc:by-line="BarcelonaTravelHacks.com" "A0000-01.jpg"  
exiftool -xmp:creator="BarcelonaTravelHacks.com" "A0000-01.jpg"  
exiftool -exif:Artist="BarcelonaTravelHacks.com" "A0000-01.jpg"
```

```
exiftool -iptc:CopyrightNotice="Copywrite 2022 BarcelonaTravelHacks.com" "A0000-01.jpg"  
exiftool -xmp:rights="Copywrite 2022 BarcelonaTravelHacks.com" "A0000-01.jpg"  
exiftool -exif:Copyright="Copywrite 2022 BarcelonaTravelHacks.com" "A0000-01.jpg"
```

```
exiftool -XMP-xmpRights:WebStatement="https://www.barcelonatravelhacks.com/Information/I0002/Terms-and-Conditions-BarcelonaTravelHacks" "A0000-01.jpg"  
exiftool -xmp-xmprights:marked=true -xmp:copyrightstatus="CS-PRO" "A0000-01.jpg"
```

```
exiftool -iptc:keywords="spire,crane,sagrada familia,passion facade" "A0000-01.jpg"  
exiftool -xmp:Subject="spire,crane,sagrada familia,passion facade" "A0000-01.jpg"  
exiftool -exif:UserComment="spire,crane,sagrada familia,passion facade" "A0000-01.jpg"
```

```
exiftool -iptc:credit="Image rights provided by ThirdPartyWebsite.com" "A0000-01.jpg"  
exiftool -xmp:credit="Image rights provided by ThirdPartyWebsite.com" "A0000-01.jpg"
```

```
exiftool -iptc:ObjectName="La Sagrada Familia" "A0000-01.jpg"  
exiftool -xmp:Title="La Sagrada Familia" "A0000-01.jpg"  
exiftool -exif:DocumentName="La Sagrada Familia" "A0000-01.jpg"
```

```
exiftool -iptc:Caption-Abstract="Image description" A0000-01.jpg  
exiftool -xmp:description="Image description" A0000-01.jpg  
exiftool -exif:ImageDescription="Image description" A0000-01.jpg
```

```
exiftool -iptc:Source="www.barcelonatravelhacks.com" A0000-01.jpg  
exiftool -xmp:Source="www.barcelonatravelhacks.com" A0000-01.jpg
```

```
exiftool -exif:gpslatitude="41.403035" -exif:gpslatituderef=N A0000-01.jpg  
exiftool -exif:gpslongitude="2.173608" -exif:gpslongituderef=E A0000-01.jpg  
exiftool -xmp:gpslatitude="41.403035 N" A0000-01.jpg  
exiftool -xmp:gpslongitude="2.173608 E" A0000-01.jpg
```

```
exiftool -xmp:AuthorsPosition="website owner & coder" A0000-01.jpg  
exiftool -iptc:By-lineTitle="website owner & coder" A0000-01.jpg
```

```
exiftool -xmp:CaptionWriter="BarcelonaTravelHacks.com" A0000-01.jpg  
exiftool -iptc:Writer-Editor="BarcelonaTravelHacks.com" A0000-01.jpg
```

# Exiftool Commands Appendix

- APPENDIX 1: EXIFTOOL show all writable FILE tags
- APPENDIX 2: EXIFTOOL show all writable IPTC tags
- APPENDIX 3: EXIFTOOL show all writable EXIF tags
- APPENDIX 4: EXIFTOOL show all writable XMP tags
- APPENDIX 5: Image metadata Web resources

# APPENDIX 1: EXIFTOOL show all writable FILE tags

```
C:\Users\ellio> exiftool -listw -file:all
```

Writable file tags:

```
Comment Directory ExifByteOrder ExifUnicodeByteOrder FileCreateDate  
FileGroupID FileModifyDate FileName FilePermissions FileUserID Geosync Geotag  
Geotime HardLink MDItemFSCreationDate MDItemFSLabel MDItemFinderComment  
MDItemUserTags PreviewImage SymLink TestName Trailer XAttrQuarantine  
ZoneIdentifier
```

# APPENDIX 2: EXIFTOOL show all writable IPTC tags

```
C:\Users\ellio> exiftool -listw -iptc:all
```

Writable iptc tags:

```
ARMIdentifier ARMVersion ActionAdvised ApplicationRecordVersion AudioDuration
AudioOutcue AudioSamplingRate AudioSamplingResolution AudioType
BitsPerComponent By-line By-lineTitle Caption-Abstract CatalogSets Category
City ClassifyState CodedCharacterSet ColorRepresentation ColorSequence
Contact ContentLocationCode ContentLocationName CopyrightNotice
Country-PrimaryLocationCode Country-PrimaryLocationName Credit
DataCompressionMethod DateCreated DateSent Destination DigitalCreationDate
DigitalCreationTime DocumentHistory DocumentNotes EditStatus EditorialUpdate
EnvelopeNumber EnvelopePriority EnvelopeRecordVersion ExcursionTolerance
ExifCameraInfo ExpirationDate ExpirationTime FileFormat FileVersion
FixtureIdentifier GammaCompensatedValue Headline IPTC IPTCBitsPerSample
IPTCImageHeight IPTCImageRotation IPTCImageWidth IPTCPictureNumber
IPTCPixelHeight IPTCPixelWidth ImageOrientation ImageType
InterchangeColorSpace JobID Keywords LanguageIdentifier LocalCaption
MasterDocumentID MaximumDensityRange NewsPhotoVersion NumIndexEntries
ObjectAttributeReference ObjectCycle ObjectName ObjectPreviewData
ObjectPreviewFileFormat ObjectPreviewFileVersion ObjectTypeReference
OriginalTransmissionReference OriginatingProgram OwnerID Prefs ProductID
ProgramVersion Province-State QuantizationMethod RasterizedCaption
ReferenceDate ReferenceNumber ReferenceService ReleaseDate ReleaseTime
SampleStructure ScanningDirection ServiceIdentifier ShortDocumentID
SimilarityIndex Source SpecialInstructions Sub-location SubjectReference
SupplementalCategories SupplementalType TimeCreated TimeSent UniqueDocumentID
UniqueObjectName Urgency Writer-Editor
```

# APPENDIX 3: EXIFTOOL show all writable EXIF tags

```
C:\Users\ellio> exiftool -listw -exif:all
```

Writable exif tags:

```
Acceleration ActiveArea AmbientTemperature AnalogBalance AntiAliasStrength
ApertureValue ApplicationNotes Artist AsShotICCProfile AsShotNeutral
AsShotPreProfileMatrix AsShotProfileName AsShotWhiteXY BaselineExposure
BaselineExposureOffset BaselineNoise BaselineSharpness BayerGreenSplit
BestQualityScale BitsPerSample BlackLevel BlackLevelBlue BlackLevelDeltaH
BlackLevelDeltaV BlackLevelGreen BlackLevelRed BlackLevelRepeatDim
BlueBalance Brightness BrightnessValue CFAPattern CFAPattern2
CFARRepeatPatternDim CacheVersion CalibrationIlluminant1
CalibrationIlluminant2 CalibrationIlluminant3 CameraCalibration1
CameraCalibration2 CameraCalibration3 CameraCalibrationSig
CameraElevationAngle CameraLabel CameraSerialNumber CellLength CellWidth
ChromaBlurRadius ChromaticAberrationCorrParams ChromaticAberrationCorrection
ColorMatrix1 ColorMatrix2 ColorMatrix3 ColorSpace ColorimetricReference
ComponentsConfiguration CompositeImage CompositeImageCount
CompositeImageExposureTimes CompressedBitsPerPixel Compression Contrast
Converter Copyright CreateDate CropBottom CropLeft CropRight CropTop
CurrentICCProfile CurrentPreProfileMatrix CustomRendered DNGAdobeData
DNGBackwardVersion DNGLensInfo DNGPrivateData DNGVersion DateTimeOriginal
DefaultBlackRender DefaultCropOrigin DefaultCropSize DefaultScale
DefaultUserCrop DepthFar DepthFormat DepthMeasureType DepthNear DepthUnits
DigitalZoomRatio DistortionCorrParams DistortionCorrection DocumentName EXIF
EnhanceParams ExifImageHeight ExifImageWidth ExifVersion Exposure
ExposureCompensation ExposureIndex ExposureMode ExposureProgram ExposureTime
FNumber FileSource FillOrder Flash FlashEnergy FlashpixVersion FocalLength
FocalLengthIn35mmFormat FocalPlaneResolutionUnit FocalPlaneXResolution
FocalPlaneYResolution ForwardMatrix1 ForwardMatrix2 ForwardMatrix3 FrameRate
```



GDALMetadata GDALNoData GPSAltitude GPSAltitudeRef GPSAreaInformation GPSDOP  
GPSDateStamp GPSDestBearing GPSDestBearingRef GPSDestDistance  
GPSDestDistanceRef GPSDestLatitude GPSDestLatitudeRef GPSDestLongitude  
GPSDestLongitudeRef GPSDifferential GPSSHPositioningError GPSImgDirection  
GPSImgDirectionRef GPSLatitude GPSLatitudeRef GPSLongitude GPSLongitudeRef  
GPSMapDatum GPSMeasureMode GPSProcessingMethod GPSSatellites GPSSpeed  
GPSSpeedRef GPSStatus GPSTimeStamp GPSTrack GPSTrackRef GPSVersionID  
GainControl Gamma GeoTiffAsciiParams GeoTiffDirectory GeoTiffDoubleParams  
GooglePlusUploadCode GrayResponseUnit HalftoneHints HighISOMultiplierBlue  
HighISOMultiplierGreen HighISOMultiplierRed HostComputer Humidity IPTC-NAA  
ISO ISOSpeed ISOSpeedLatitudeyyy ISOSpeedLatitudezzz IlluminantData1  
IlluminantData2 IlluminantData3 ImageDescription ImageHeight ImageHistory  
ImageNumber ImageSourceData ImageUniqueID ImageWidth InkSet IntergraphMatrix  
InteropIndex InteropVersion JpgFromRaw JpgFromRawLength JpgFromRawStart Lens  
LensInfo LensMake LensModel LensSerialNumber LightSource LinearResponseLimit  
LinearityLimitBlue LinearityLimitGreen LinearityLimitRed LinearizationTable  
LocalizedCameraModel Make MakerNoteApple MakerNoteCanon MakerNoteCasio  
MakerNoteCasio2 MakerNoteDJI MakerNoteFLIR MakerNoteFujiFilm MakerNoteGE  
MakerNoteGE2 MakerNoteHP MakerNoteHP2 MakerNoteHP4 MakerNoteHP6  
MakerNoteHasselblad MakerNoteISL MakerNoteJVC MakerNoteJVCText  
MakerNoteKodak10 MakerNoteKodak11 MakerNoteKodak12 MakerNoteKodak1a  
MakerNoteKodak1b MakerNoteKodak2 MakerNoteKodak3 MakerNoteKodak4  
MakerNoteKodak5 MakerNoteKodak6a MakerNoteKodak6b MakerNoteKodak7  
MakerNoteKodak8a MakerNoteKodak8b MakerNoteKodak8c MakerNoteKodak9  
MakerNoteKodakUnknown MakerNoteKyocera MakerNoteLeica MakerNoteLeica10  
MakerNoteLeica2 MakerNoteLeica3 MakerNoteLeica4 MakerNoteLeica5  
MakerNoteLeica6 MakerNoteLeica7 MakerNoteLeica8 MakerNoteLeica9  
MakerNoteMinolta MakerNoteMinolta2 MakerNoteMinolta3 MakerNoteMotorola  
MakerNoteNikon MakerNoteNikon2 MakerNoteNikon3 MakerNoteNintendo  
MakerNoteOlympus MakerNoteOlympus2 MakerNotePanasonic MakerNotePanasonic2  
MakerNotePanasonic3 MakerNotePentax MakerNotePentax2 MakerNotePentax3  
MakerNotePentax4 MakerNotePentax5 MakerNotePentax6 MakerNotePhaseOne  
MakerNoteReconyx MakerNoteReconyx2 MakerNoteReconyx3 MakerNoteRicoh  
MakerNoteRicoh2 MakerNoteRicohPentax MakerNoteRicohText MakerNoteSafety  
MakerNoteSamsung1a MakerNoteSamsung1b MakerNoteSamsung2 MakerNoteSanyo  
MakerNoteSanyoC4 MakerNoteSanyoPatch MakerNoteSigma MakerNoteSony

MakerNoteSony2 MakerNoteSony3 MakerNoteSony4 MakerNoteSony5  
MakerNoteSonyEricsson MakerNoteSonySRF MakerNoteUnknown  
MakerNoteUnknownBinary MakerNoteUnknownText MaskedAreas MaxApertureValue  
MaxSampleValue MeteringMode MinSampleValue Model ModelTiePoint ModelTransform  
ModifyDate MoireFilter Multishot NewRawImageDigest NoiseProfile  
NoiseReductionApplied NoiseReductionParams OffsetSchema OffsetTime  
OffsetTimeDigitized OffsetTimeOriginal OldSubfileType OpcodeList1 OpcodeList2  
OpcodeList3 Orientation OriginalBestQualitySize OriginalDefaultCropSize  
OriginalDefaultFinalSize OriginalRawFileData OriginalRawFileDigest  
OriginalRawFileName OtherImage OtherImageLength OtherImageStart OwnerName  
Padding PageName PageNumber PanasonicRawVersion PanasonicTitle  
PanasonicTitle2 PhotometricInterpretation PixelScale PlanarConfiguration  
Predictor Pressure PreviewApplicationName PreviewApplicationVersion  
PreviewColorSpace PreviewDateTime PreviewImage PreviewImageLength  
PreviewImageStart PreviewSettingsDigest PreviewSettingsName  
PrimaryChromaticities PrintIM ProcessingSoftware ProfileCalibrationSig  
ProfileCopyright ProfileEmbedPolicy ProfileGainTableMap ProfileHueSatMapData1  
ProfileHueSatMapData2 ProfileHueSatMapData3 ProfileHueSatMapDims  
ProfileHueSatMapEncoding ProfileLookTableData ProfileLookTableDims  
ProfileLookTableEncoding ProfileName ProfileToneCurve RGBTables Rating  
RatingPercent RawDataUniqueID RawFile RawFormat RawImageDigest  
RawToPreviewGain RecommendedExposureIndex RedBalance ReductionMatrix1  
ReductionMatrix2 ReductionMatrix3 ReelName ReferenceBlackWhite  
RelatedImageFileFormat RelatedImageHeight RelatedImageWidth RelatedSoundFile  
ResolutionUnit RowsPerStrip SEMInfo SamplesPerPixel Saturation  
SceneCaptureType SceneType SecurityClassification SelfTimerMode SensingMethod  
SensitivityType SerialNumber ShadowScale Shadows Sharpness ShutterSpeedValue  
Smoothness Software SonyCropSize SonyCropTopLeft SpectralSensitivity  
StandardOutputSensitivity SubSecTime SubSecTimeDigitized SubSecTimeOriginal  
SubfileType SubjectArea SubjectDistance SubjectDistanceRange SubjectLocation  
TStop TargetPrinter Thresholding ThumbnailImage ThumbnailLength  
ThumbnailOffset TileLength TileWidth TimeCodes TimeZoneOffset  
TransferFunction UniqueCameraModel UserComment VignettingCorrParams  
VignettingCorrection WBBlueLevel WBGreenLevel WBRedLevel WaterDepth  
WhiteBalance WhiteLevel WhitePoint XPAuthor XPComment XPKeywords XPSubject  
XPTitle XPosition XResolution YCbCrCoefficients YCbCrPositioning  
YCbCrSubSampling YPosition YResolution

# APPENDIX 4: EXIFTOOL show all writable XMP tags

```
C:\Users\ellio> exiftool -listw -xmp:all
```

Writable xmp tags:

```
About AboutCvTerm AboutCvTermCvId AboutCvTermId AboutCvTermName
AboutCvTermRefinedAbout AbsPeakAudioFilePath AbsoluteAltitude AcademicField
Acceleration AdditionalModelInformation AdultContentWarning Advisory
AeProjectLink AeProjectLinkCompositionID AeProjectLinkFullPath
AeProjectLinkRenderOutputModuleIndex AeProjectLinkRenderQueueItemID
AeProjectLinkRenderTimeStamp AffineA AffineB AffineC AffineD AffineX AffineY
AggregateIssueNumber AggregationType Agreement Album AlreadyApplied
AltTapeName AltTextAccessibility AltTimecode AltTimecodeTimeFormat
AltTimecodeTimeValue AltTimecodeValue AlternateTitle AlternateTitleA-lang
AlternateTitleA-platform AlternateTitleText AmbientTemperature AngleInfoRoll
AngleInfoYaw ApertureValue AppInfo AppInfoApplication AppInfoItemURI
AppInfoVersion AppVersion Approved ApprovedBy ApproximateFocusDistance Artist
ArtworkCircaDateCreated ArtworkContentDescription
ArtworkContributionDescription ArtworkCopyrightNotice ArtworkCopyrightOwnerID
ArtworkCopyrightOwnerName ArtworkCreator ArtworkCreatorID ArtworkDateCreated
ArtworkLicensorID ArtworkLicensorName ArtworkOrObject
ArtworkPhysicalDescription ArtworkSource ArtworkSourceInvURL
ArtworkSourceInventoryNo ArtworkStylePeriod ArtworkTitle AssetID
AttributionName AttributionURL AudioBitrate AudioBitrateMode
AudioBitsPerSample AudioChannelCount AudioChannelType AudioCompressor
AudioData AudioMimeType AudioModDate AudioSampleRate AudioSampleType Author
AuthorsPosition AutoBrightness AutoContrast AutoExposure AutoLateralCA
AutoShadows AutoTone AutoToneDigest AutoToneDigestNoSat AutoWhiteVersion
BackgroundAlpha BaseURL BeatSpliceParams BeatSpliceParamsRiseInDecibel
BeatSpliceParamsRiseInTimeDuration BeatSpliceParamsRiseInTimeDurationScale
BeatSpliceParamsRiseInTimeDurationValue BeatSpliceParamsUseFileBeatsMarker
BitsPerSample Blacks2012 BlogTitle BlogURL BlueHue BlueSaturation
```

BlurAtInfinity BookEdition Brightness BrightnessValue BurstID BurstPrimary  
ByteCount CFAPattern CFAPatternColumns CFAPatternRows CFAPatternValues CRC32  
CalibratedFocalLength CalibratedOpticalCenterX CalibratedOpticalCenterY  
CallForImage CamReverse Camera CameraAngle CameraAppInfo  
CameraAppInfoApplication CameraAppInfoItemURI CameraAppInfoVersion  
CameraBurstID CameraDepthMap CameraDepthMapConfidenceURI  
CameraDepthMapDepthURI CameraDepthMapFar CameraDepthMapFocalTable  
CameraDepthMapFocalTableEntryCount CameraDepthMapFormat  
CameraDepthMapItemSemantic CameraDepthMapMeasureType CameraDepthMapNear  
CameraDepthMapSoftware CameraDepthMapUnits CameraElevationAngle  
CameraFilename CameraImage CameraImageItemSemantic CameraImageItemURI  
CameraImagingModel CameraImagingModelDistortion  
CameraImagingModelDistortionCount CameraImagingModelFocalLengthX  
CameraImagingModelFocalLengthY CameraImagingModelImageHeight  
CameraImagingModelImageWidth CameraImagingModelPixelAspectRatio  
CameraImagingModelPrincipalPointX CameraImagingModelPrincipalPointY  
CameraImagingModelSkew CameraLabel CameraLightEstimate  
CameraLightEstimateColorCorrectionB CameraLightEstimateColorCorrectionG  
CameraLightEstimateColorCorrectionR CameraLightEstimatePixelIntensity  
CameraMakeModel CameraModel CameraModelID CameraModelRestriction CameraMove  
CameraPointCloud CameraPointCloudMetric CameraPointCloudPointCloud  
CameraPointCloudPoints CameraPose CameraPosePositionX CameraPosePositionY  
CameraPosePositionZ CameraPoseRotationW CameraPoseRotationX  
CameraPoseRotationY CameraPoseRotationZ CameraPoseTimestamp CameraProfile  
CameraProfileDigest CameraSerialNumber CameraTrait CameraVendorInfo  
CameraVendorInfoManufacturer CameraVendorInfoModel CameraVendorInfoNotes  
Cameras Caption CaptionWriter CaptionsAuthorNames CaptionsDateTimeStamps  
CaptureSoftware CatalogSets Categories Category CellGlobalID CellR  
CellTowerID Certificate Channel ChannelA-lang ChannelChannel  
ChannelSubchannel1 ChannelSubchannel2 ChannelSubchannel3 ChannelSubchannel4  
ChildFontFiles ChromaticAberrationB ChromaticAberrationR  
CircGradBasedCorrActive CircGradBasedCorrAmount CircGradBasedCorrBlacks2012  
CircGradBasedCorrBrightness CircGradBasedCorrClarity  
CircGradBasedCorrClarity2012 CircGradBasedCorrContrast  
CircGradBasedCorrContrast2012 CircGradBasedCorrCorrectionName

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CircGradBasedCorrExposure2012 CircGradBasedCorrHighlights2012  
CircGradBasedCorrHue CircGradBasedCorrLuminanceNoise  
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CircGradBasedCorrWhat CircGradBasedCorrWhites2012 CircaDateCreated

CircularGradientBasedCorrections City Clarity Clarity2012 Client ClientName  
ClipboardAspectRatio ClipboardOrientation Cluster CollectionName  
CollectionURI Collections Color ColorClass ColorGradeBlending  
ColorGradeGlobalHue ColorGradeGlobalLum ColorGradeGlobalSat  
ColorGradeHighlightLum ColorGradeMidtoneHue ColorGradeMidtoneLum  
ColorGradeMidtoneSat ColorGradeShadowLum ColorLabel ColorMode  
ColorNoiseReduction ColorNoiseReductionDetail ColorNoiseReductionSmoothness  
ColorSpace ColorTemperature ColorantA ColorantB ColorantBlack ColorantBlue  
ColorantCyan ColorantGray ColorantGreen ColorantL ColorantMagenta  
ColorantMode ColorantRed ColorantSwatchName ColorantTint ColorantType  
ColorantYellow Colorants CompImageImagesPerSequence CompImageMaxExposureAll  
CompImageMaxExposureUsed CompImageMinExposureAll CompImageMinExposureUsed  
CompImageNumSequences CompImageSumExposureAll CompImageSumExposureUsed  
CompImageTotalExposurePeriod CompImageValues CompatibleVersion  
ComplianceProfile ComponentsConfiguration Composer CompositeImage  
CompositeImageCount CompositeImageExposureTimes Composition  
CompressedBitsPerPixel Compression Confidence ConfidenceLevel ConfidenceMime  
ContactInfo Container ContainerDirectory ContainerDirectoryItem  
ContainerDirectoryItemDataURI ContainerDirectoryItemLength  
ContainerDirectoryItemMime ContainerDirectoryItemPadding ContainerFormat  
ContainerFormatIdentifier ContainerFormatName ContentType Contrast  
Contrast2012 ContributedMedia ContributedMediaDuration  
ContributedMediaDurationScale ContributedMediaDurationValue  
ContributedMediaManaged ContributedMediaPath ContributedMediaStartTime  
ContributedMediaStartTimeScale ContributedMediaStartTimeValue  
ContributedMediaTrack ContributedMediaWebStatement Contributor  
ContributorIdentifier ContributorName ContributorRole  
ControlledVocabularyTerm ConvertToGrayscale Converter CookingEquipment  
CookingMethod Copyright CopyrightOwner CopyrightOwnerID CopyrightOwnerImageID  
CopyrightOwnerName CopyrightRegistrationNumber CopyrightStatus CopyrightYear  
CorporateEntity Country CountryCode Course CoverDate CoverDisplayDate  
Coverage CreateDate CreationDate Creator CreatorAddress CreatorAppID  
CreatorCity CreatorContactInfo CreatorCountry CreatorIdentifier CreatorName  
CreatorOpenWithOptions CreatorPostalCode CreatorRegion CreatorRole  
CreatorTool CreatorWorkEmail CreatorWorkTelephone CreatorWorkURL Credit

CreditLine CreditLineReq CreditLineRequired CropAngle CropBottom  
CropConstrainToWarp CropH CropHeight CropLeft CropRight CropTop CropUnit  
CropUnits CropW CropWidth CropX CropY CroppedAreaImageHeightPixels  
CroppedAreaImageWidthPixels CroppedAreaLeftPixels CroppedAreaTopPixels  
Cuisine Curve0x Curve0y Curve1x Curve1y Curve2x Curve2y Curve3x Curve3y  
Curve4x Curve4y Custom1 Custom10 Custom2 Custom3 Custom4 Custom5 Custom6  
Custom7 Custom8 Custom9 CustomRendered DCContinent DCCoordinatePrecision  
DCCoordinateUncertaintyInMeters DCCountry DCCountryCode DCCounty  
DCDecimalLatitude DCDecimalLongitude DCEvent DCFootprintSRS  
DCFootprintSpatialFit DCFootprintWKT DCGeodeticDatum DCGeoreferenceProtocol  
DCGeoreferenceRemarks DCGeoreferenceSources DCGeoreferenceVerificationStatus  
DCGeoreferencedBy DCGeoreferencedDate DCHigherGeography DCHigherGeographyID  
DCIsland DCIslandGroup DCLocality DCLocationAccordingTo DCLocationID  
DCLocationRemarks DCMaximumDepthInMeters  
DCMaximumDistanceAboveSurfaceInMeters DCMaximumElevationInMeters  
DCMinimumDepthInMeters DCMinimumDistanceAboveSurfaceInMeters  
DCMinimumElevationInMeters DCMunicipality DCPointRadiusSpatialFit  
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DCVerbatimCoordinates DCVerbatimDepth DCVerbatimElevation DCVerbatimLatitude  
DCVerbatimLocality DCVerbatimLongitude DCVerbatimSRS DCWaterBody DMComment  
DNGIgnoreSidecars DOI DPP DataOnScreen DataOnScreenRegion DataOnScreenRegionD  
DataOnScreenRegionH DataOnScreenRegionText DataOnScreenRegionUnit  
DataOnScreenRegionW DataOnScreenRegionX DataOnScreenRegionY Date DateAcquired  
DateCreated DateIdentified DateRecieved DateTime DateTimeDigitized  
DateTimeOriginal DefaultAutoGray DefaultAutoTone DefaultsSpecificToISO  
DefaultsSpecificToSerial Defringe DefringeGreenAmount DefringeGreenHueHi  
DefringeGreenHueLo DefringePurpleAmount DefringePurpleHueHi  
DefringePurpleHueLo Dehaze DeprecatedOn DepthImage DerivedFrom  
DerivedFromAlternatePaths DerivedFromDocumentID DerivedFromFilePath  
DerivedFromFromPart DerivedFromInstanceID DerivedFromLastModifyDate  
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DerivedFromManageTo DerivedFromManageUI DerivedFromManager  
DerivedFromManagerVariant DerivedFromMaskMarkers  
DerivedFromOriginalDocumentID DerivedFromPartMapping  
DerivedFromPlacedResolutionUnit DerivedFromPlacedXResolution



DerivedFromPlacedYResolution DerivedFromRenditionClass  
DerivedFromRenditionParams DerivedFromToPart DerivedFromVersionID Description  
Device DeviceSettingDescription DeviceSettingDescriptionColumns  
DeviceSettingDescriptionRows DeviceSettingDescriptionSettings DewarpData  
DewarpFlag DietaryNeeds DigitalImageGUID DigitalSourceFileType  
DigitalSourceType DigitalZoomRatio Director DirectorPhotography  
DisableAutoCreation DiscNumber DishType DisplayName  
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DopesheetLinkLinkQualifier Duration DurationScale DurationValue EIssn  
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EarliestEpochOrLowestSeries EarliestEraOrLowestErathem  
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EarthPosLongitude EarthPosRotationW EarthPosRotationX EarthPosRotationY  
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FaceBalanceOrigQ FaceBalanceStrength FaceBalanceWarmth FaceID Far  
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Firmware FirstPhotoDate FirstPublicationDate FixtureIdentifier Flash  
FlashCompensation FlashEnergy FlashFired FlashFunction FlashManufacturer  
FlashMode FlashModel FlashRedEyeMode FlashReturn FlashpixVersion  
FlightPitchDegree FlightRollDegree FlightXSpeed FlightYSpeed FlightYawDegree  
FlightZSpeed FocalDistance FocalLength FocalLengthIn35mmFormat

FocalPlaneResolutionUnit FocalPlaneXResolution FocalPlaneYResolution  
FocalPointX FocalPointY FontComposite FontFace FontFamily FontFileName  
FontName FontType FontVersion Fonts Format ForwardLock FossilSpecimen  
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GPSAreaInformation GPSDOP GPSDateTime GPSDestBearing GPSDestBearingRef  
GPSDestDistance GPSDestDistanceRef GPSDestLatitude GPSDestLongitude  
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GrayMixerYellow GreenHue GreenSaturation Group HDRPMakerNote HasAlternative  
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HierarchicalKeywords6 HierarchicalKeywords6Applied HierarchicalSubject  
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HueAdjustmentPurple HueAdjustmentRed HueAdjustmentYellow HumanObservation  
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HumanObservationFieldNotes HumanObservationFieldNumber  
HumanObservationHabitat HumanObservationLatestDate HumanObservationMonth  
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IdentificationQualifier IdentificationReferences IdentificationRemarks  
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ImageHeight ImageHistory ImageMimeType ImageNumber ImageRank ImageRef  
ImageRegion ImageRegionBoundary ImageRegionBoundaryH ImageRegionBoundaryRx  
ImageRegionBoundaryShape ImageRegionBoundaryUnit ImageRegionBoundaryVertices  
ImageRegionBoundaryVerticesX ImageRegionBoundaryVerticesY  
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ImageSupplierImageID ImageSupplierName ImageType ImageUniqueID ImageWidth  
IncrementalTemperature IncrementalTint Industry IngredientExclusion  
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IngredientsFilePath IngredientsFromPart IngredientsInstanceID  
IngredientsLastModifyDate IngredientsLastURL IngredientsLinkCategory  
IngredientsLinkForm IngredientsManageTo IngredientsManageUI  
IngredientsManager IngredientsManagerVariant IngredientsMaskMarkers  
IngredientsOriginalDocumentID IngredientsPartMapping

IngredientsPlacedResolutionUnit IngredientsPlacedXResolution  
IngredientsPlacedYResolution IngredientsRenditionClass  
IngredientsRenditionParams IngredientsToPart IngredientsVersionID  
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InitialViewHeadingDegrees InitialViewPitchDegrees InitialViewRollDegrees  
InstanceID Instructions Instrument IntellectualGenre InteropIndex IntroTime  
IntroTimeScale IntroTimeValue IsAlternativeOf IsCorrectionOf IsMergedHDR  
IsMergedPanorama IsTranslationOf IssueIdentifier IssueName IssueTeaser  
IssueType ItemSubType JPEGHandling JobName JobRef JobRefId JobRefName  
JobRefUrl JobStatus Jurisdiction Key Keyword KeywordInfo Keywords KillDate  
KillDateA-platform KillDateDate Label LabelName1 LabelName2 LabelName3  
LabelName4 LabelName5 LabelName6 Language LargestValidInteriorRectHeight  
LargestValidInteriorRectLeft LargestValidInteriorRectTop  
LargestValidInteriorRectWidth LastKeywordIPTC LastKeywordXMP LastPhotoDate  
LastURL LateralChromaticAberrationCorrectionAlreadyApplied  
LatestAgeOrHighestStage LatestEonOrHighestEonothem LatestEpochOrHighestSeries  
LatestEraOrHighestErathem LatestPeriodOrHighestSystem Latitude  
LegacyIPTCDigest LegalCode Lens LensCorrectionSettings LensDistortInfo LensID  
LensInfo LensMake LensManualDistortionAmount LensManufacturer LensModel  
LensProfileChromaticAberrationScale LensProfileDigest  
LensProfileDistortionScale LensProfileEnable LensProfileFilename  
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LensProfileMatchKeyExifMake LensProfileMatchKeyExifModel  
LensProfileMatchKeyIsRaw LensProfileMatchKeyLensID  
LensProfileMatchKeyLensInfo LensProfileMatchKeyLensName  
LensProfileMatchKeySensorFormatFactor LensProfileName LensProfileSetup  
LensProfileVignettingScale LensSerialNumber License LicenseEndDate LicenseID  
LicenseStartDate LicenseTransactionDate LicenseType Licensee LicenseeID  
LicenseeImageID LicenseeImageNotes LicenseeName LicenseeProjectReference  
LicenseeTransactionID Licensor LicensorCity LicensorCountry LicensorEmail  
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LicensorTelehone2 LicensorTelehoneType1 LicensorTelehoneType2  
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LocationCreatedCity LocationCreatedCountryCode LocationCreatedCountryName  
LocationCreatedGPSAltitude LocationCreatedGPSLatitude  
LocationCreatedGPSLongitude LocationCreatedIdentifier  
LocationCreatedLocationId LocationCreatedLocationName  
LocationCreatedProvinceState LocationCreatedSublocation  
LocationCreatedWorldRegion LocationShown LocationShownCity  
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LocationShownSublocation LocationShownWorldRegion LogComment Longitude Look  
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LookParametersProcessVersion LookParametersToneCurvePV2012  
LookParametersToneCurvePV2012Blue LookParametersToneCurvePV2012Green  
LookParametersToneCurvePV2012Red LookParametersVersion LookSupportsAmount  
LookSupportsMonochrome LookSupportsOutputReferred LookUUID Loop  
LowestBiostratigraphicZone LuminanceAdjustmentAqua LuminanceAdjustmentBlue  
LuminanceAdjustmentGreen LuminanceAdjustmentMagenta LuminanceAdjustmentOrange  
LuminanceAdjustmentPurple LuminanceAdjustmentRed LuminanceAdjustmentYellow  
LuminanceNoiseReductionContrast LuminanceNoiseReductionDetail  
LuminanceSmoothing Lyrics MacAtom MacAtomApplicationCode  
MacAtomInvocationAppleEvent MacAtomPosixProjectPath MachineObservation  
MachineObservationDay MachineObservationEarliestDate  
MachineObservationEndDayOfYear MachineObservationEventDate  
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ManagedFromFromPart ManagedFromInstanceID ManagedFromLastModifyDate  
ManagedFromLastURL ManagedFromLinkCategory ManagedFromLinkForm  
ManagedFromManageTo ManagedFromManageUI ManagedFromManager  
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ManifestPlacedXResolution ManifestPlacedYResolution ManifestReference  
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ManifestReferenceFilePath ManifestReferenceFromPart  
ManifestReferenceInstanceID ManifestReferenceLastModifyDate  
ManifestReferenceLastURL ManifestReferenceLinkCategory  
ManifestReferenceLinkForm ManifestReferenceManageTo ManifestReferenceManageUI  
ManifestReferenceManager ManifestReferenceManagerVariant  
ManifestReferenceMaskMarkers ManifestReferenceOriginalDocumentID  
ManifestReferencePartMapping ManifestReferencePlacedResolutionUnit  
ManifestReferencePlacedXResolution ManifestReferencePlacedYResolution  
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ManifestReferenceToPart ManifestReferenceVersionID Manufacturer Marked  
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MarkersCuePointParamsValue MarkersCuePointType MarkersDuration  
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MaskGroupBasedCorrExposure2012 MaskGroupBasedCorrHighlights2012



MaskGroupBasedCorrHue MaskGroupBasedCorrLuminanceNoise MaskGroupBasedCorrMask  
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MaskGroupBasedCorrMaskMasksMaskBlendMode  
MaskGroupBasedCorrMaskMasksMaskDigest MaskGroupBasedCorrMaskMasksMaskInverted  
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MaskGroupBasedCorrMaskMasksSizeY MaskGroupBasedCorrMaskMasksTop  
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MaskGroupBasedCorrMaskMasksZeroX MaskGroupBasedCorrMaskMasksZeroY  
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MaskGroupBasedCorrMaskRangeLumMin MaskGroupBasedCorrMaskRangeLumRange  
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MaskGroupBasedCorrTint MaskGroupBasedCorrToningHue  
MaskGroupBasedCorrToningSaturation MaskGroupBasedCorrWhat  
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MeasurementID MeasurementMethod MeasurementOrFact MeasurementRemarks  
MeasurementType MeasurementUnit MeasurementValue MediaConstraints  
MediaEventIdDate MediaSummaryCode MetadataDate MetadataModDate MeteringMode  
MicroVideo MicroVideoOffset MicroVideoPresentationTimestampUs  
MicroVideoVersion Mime MinorModelAgeDisclosure MinorVersion MobileCountryCode  
MobileNetworkCode ModDate Model ModelAge ModelReleaseID ModelReleaseStatus  
ModelYear ModificationDate ModifyDate MoireFilter MorePermissions NPages Name  
NationalCatalogNumber NativeDigest Near NegativeCacheLargePreviewSize  
NegativeCacheMaximumSize NegativeCachePath NeutralDensityFactor Nickname  
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OccurrenceAssociatedMedia OccurrenceAssociatedOccurrences  
OccurrenceAssociatedReferences OccurrenceAssociatedSequences  
OccurrenceAssociatedTaxa OccurrenceBehavior OccurrenceCatalogNumber  
OccurrenceDetails OccurrenceDisposition OccurrenceEstablishmentMeans  
OccurrenceID OccurrenceIndividualCount OccurrenceIndividualID  
OccurrenceLifeStage OccurrenceOrganismQuantity OccurrenceOrganismQuantityType  
OccurrenceOtherCatalogNumbers OccurrencePreparations  
OccurrencePreviousIdentifications OccurrenceRecordNumber OccurrenceRecordedBy  
OccurrenceRemarks OccurrenceReproductiveCondition OccurrenceSex  
OccurrenceStatus OffSaleDate OffSaleDateA-platform OffSaleDateDate OnSaleDate  
OnSaleDateA-platform OnSaleDateDate OnSaleDay OnSaleDayA-platform  
OnSaleDayDay OptionEndDate Opto-ElectricConvFactor OrganisationInImageCode  
OrganisationInImageName Organism OrganismAssociatedOccurrences  
OrganismAssociatedOrganisms OrganismID OrganismName  
OrganismPreviousIdentifications OrganismRemarks OrganismScope Organization  
Orientation OriginPlatform OriginalCreateDateTime OriginalDocumentID  
OriginalFileName OriginatingProgram OtherConditions OtherConstraints  
OtherImageInfo OtherLicenseDocuments OtherLicenseInfo  
OtherLicenseRequirements OutCue OutCueScale OutCueValue OverrideLookVignette  
Owner OwnerName PDFVersion PLUSVersion PMVersion PageCount PageImage  
PageImageFormat PageImageHeight PageImagePageNumber PageImageWidth PageInfo  
PageProgressionDirection PageRange PaintBasedCorrectionMasks  
PaintBasedCorrections PaintCorrectionActive PaintCorrectionAmount

PaintCorrectionBlacks2012 PaintCorrectionBrightness PaintCorrectionClarity  
PaintCorrectionClarity2012 PaintCorrectionContrast  
PaintCorrectionContrast2012 PaintCorrectionCorrectionName  
PaintCorrectionCorrectionSyncID PaintCorrectionDefringe PaintCorrectionDehaze  
PaintCorrectionExposure PaintCorrectionExposure2012  
PaintCorrectionHighlights2012 PaintCorrectionHue  
PaintCorrectionLuminanceNoise PaintCorrectionMaskAlpha  
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PaintCorrectionMaskInputDigest PaintCorrectionMaskLeft  
PaintCorrectionMaskMaskActive PaintCorrectionMaskMaskBlendMode  
PaintCorrectionMaskMaskDigest PaintCorrectionMaskMaskInverted  
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PaintCorrectionMaskMasksMaskActive PaintCorrectionMaskMasksMaskBlendMode  
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PaintCorrectionMaskMasksValue PaintCorrectionMaskMasksVersion  
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PaintCorrectionMaskMasksZeroX PaintCorrectionMaskMasksZeroY  
PaintCorrectionMaskMidpoint PaintCorrectionMaskOrigin  
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PaintCorrectionMaskRangeLumMax PaintCorrectionMaskRangeLumMin  
PaintCorrectionMaskRangeLumRange  
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PaintCorrectionRangeMaskLumMax PaintCorrectionRangeMaskLumMin  
PaintCorrectionRangeMaskLumRange  
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PaintCorrectionTemperature PaintCorrectionTexture PaintCorrectionTint  
PaintCorrectionToningHue PaintCorrectionToningSaturation PaintCorrectionWhat  
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PanoramicStitchTheta1 Pantry PantryInstanceID ParametricDarks  
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ParametricMidtoneSplit ParametricShadowSplit ParametricShadows ParentMEID  
ParentMediaEventID ParentReference1 ParentReference2 ParentReference3  
ParentReference4 ParentReference5 ParentReference6 PartOfCompilation  
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Person PersonHeard PersonHeardIdentifier PersonHeardName PersonInImage  
PersonInImageCharacteristic PersonInImageCvTermCvId PersonInImageCvTermId  
PersonInImageCvTermName PersonInImageCvTermRefinedAbout  
PersonInImageDescription PersonInImageId PersonInImageName  
PersonInImageWDetails Personality PerspectiveAspect PerspectiveHorizontal  
PerspectiveRotate PerspectiveScale PerspectiveUpright PerspectiveVertical  
PerspectiveX PerspectiveY PhotographicSensitivity PhotometricInterpretation  
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PlanePosePositionX PlanePosePositionY PlanePosePositionZ PlanePoseRotationW  
PlanePoseRotationX PlanePoseRotationY PlanePoseRotationZ PlanePoseTimestamp  
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PresetType Pressure PrimaryChromaticities PrimaryFTP PrivateRTKInfo  
ProcessVersion Producer ProductCode ProductID ProductIDType ProductInImage  
ProductInImageDescription ProductInImageGTIN ProductInImageName  
ProductOrServiceConstraints Profession Profile ProfileCameraIndices  
ProfileType Profiles Prohibits ProjectName ProjectRef ProjectRefPath  
ProjectRefType ProjectionType PropertyReleaseID PropertyReleaseStatus  
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PublicationDisplayDate PublicationDisplayDateA-platform  
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PublicationEventIdentifier PublicationEventName PublicationName Publisher  
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RatingRegionIdentifier RatingRegionLocationId RatingRegionLocationName  
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RecommendedExposureIndex Record RecordBasisOfRecord RecordCollectionCode  
RecordCollectionID RecordDataGeneralizations RecordDatasetID  
RecordDatasetName RecordDynamicProperties RecordInformationWithheld  
RecordInstitutionCode RecordInstitutionID RecordOwnerInstitutionCode  
RedEyeInfo RedHue RedSaturation Reference1 Reference2 Reference3 Reference4  
Reference5 Reference6 ReferenceBlackWhite RegionAppliedToDimensions  
RegionAppliedToDimensionsH RegionAppliedToDimensionsUnit  
RegionAppliedToDimensionsW RegionArea RegionAreaD RegionAreaH RegionAreaUnit  
RegionAreaW RegionAreaX RegionAreaY RegionBarCodeValue RegionConstraints  
RegionDescription RegionExtensions RegionFocusUsage RegionInfo  
RegionInfoDateRegionsValid RegionInfoMP RegionInfoRegions RegionList  
RegionName RegionPersonDisplayName RegionPersonEmailDigest  
RegionPersonLiveIdCID RegionPersonSourceID RegionRectangle RegionRotation  
RegionSeeAlso RegionType RegistryEntryRole RegistryID RegistryItemID  
RegistryOrganisationID RelatedResourceID RelatedSoundFile Relation  
RelationshipAccordingTo RelationshipEstablishedDate RelationshipOfResource  
RelationshipRemarks RelativeAltitude RelativePeakAudioFilePath  
RelativeTimestamp RelativeTimestampScale RelativeTimestampValue ReleaseDate  
ReleaseReady ReleaseTime RenditionClass RenditionOf RenditionOfAlternatePaths  
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RenditionOfManageUI RenditionOfManager RenditionOfManagerVariant  
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RenditionOfPlacedYResolution RenditionOfRenditionClass  
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SaturationAdjustmentGreen SaturationAdjustmentMagenta  
SaturationAdjustmentOrange SaturationAdjustmentPurple SaturationAdjustmentRed  
SaturationAdjustmentYellow SaveID ScaleType Scene SceneCaptureType SceneType  
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SellingAgency SensingMethod SensitivityType SequenceName SequenceNumber  
SequenceTotalNumber SerialNumber Series SeriesDateTime SeriesDescription  
SeriesIdentifier SeriesModality SeriesName SeriesNumber SeriesTitle  
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SharpenEdgeMasking SharpenRadius Sharpness ShootID ShortDescription ShortName  
ShotDate ShotDay ShotLocation ShotName ShotNumber ShotSize ShownEvent  
ShownEventIdentifier ShownEventName ShutterSpeedValue SidecarForExtension  
SkillLevel SlideshowName SlideshowNumber SlideshowTotalNumber Smoothness  
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SnapshotLinkQualifier SnapshotUsedVideoFrame SnapshotUsedVideoFrameTimeFormat  
SnapshotUsedVideoFrameTimeValue SnapshotUsedVideoFrameValue

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SourcePhotosCount SpatialFrequencyResponse SpatialFrequencyResponseColumns  
SpatialFrequencyResponseNames SpatialFrequencyResponseRows  
SpatialFrequencyResponseValues SpeakerPlacement SpecialOccasion SpecialTypeID  
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SplitToningHighlightSaturation SplitToningShadowHue  
SplitToningShadowSaturation Sport StandardOutputSensitivity  
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StartTimecodeTimeValue StartTimecodeValue StartingPage State Status  
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StreamType StretchMode StudyDateTime StudyDescription StudyID StudyPhysician  
StylePeriod SubLabels1 SubLabels2 SubLabels3 SubLabels4 SubLabels5  
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SubjectCode SubjectDistance SubjectDistanceRange SubjectLocation Subsection1  
Subsection2 Subsection3 Subsection4 Subtitle SupplementDisplayID  
SupplementStartingPage SupplementTitle SupplementalCategories  
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SupportsNormalDynamicRange SupportsOutputReferred SupportsSceneReferred  
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SwatchColorantMagenta SwatchColorantMode SwatchColorantRed  
SwatchColorantSwatchName SwatchColorantTint SwatchColorantType  
SwatchColorantYellow SwatchGroupName SwatchGroupType SwatchGroups  
SwatchGroupsColorants TIFFHandling TagStructure Tagged TagsList TakeNumber  
TapeName Taxon TaxonAcceptedNameUsage TaxonAcceptedNameUsageID TaxonClass  
TaxonConceptID TaxonFamily TaxonGenus TaxonHigherClassification TaxonID  
TaxonInfraspecificEpithet TaxonKingdom TaxonNameAccordingTo  
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TaxonNamePublishedInYear TaxonNomenclaturalCode TaxonNomenclaturalStatus  
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TaxonRemarks TaxonScientificName TaxonScientificNameAuthorship  
TaxonScientificNameID TaxonSpecificEpithet TaxonSubgenus TaxonTaxonomicStatus  
TaxonVerbatimTaxonRank TaxonVernacularName Teaser Tempo TemporalCoverage

TemporalCoverageFrom TemporalCoverageTo TermsAndConditionsText  
TermsAndConditionsURL TextLayerName TextLayerText TextLayers Texture  
ThumbnailFormat ThumbnailHeight ThumbnailImage ThumbnailWidth Thumbnails  
Ticker TimeCreated TimePeriod TimeScaleParams  
TimeScaleParamsFrameOverlappingPercentage TimeScaleParamsFrameSize  
TimeScaleParamsQuality TimeShot TimeSignature TimeStamp Tint Title  
ToggleStyleAmount ToggleStyleDigest ToneCurve ToneCurveBlue ToneCurveGreen  
ToneCurveName ToneCurveName2012 ToneCurvePV2012 ToneCurvePV2012Blue  
ToneCurvePV2012Green ToneCurvePV2012Red ToneCurveRed ToneMapStrength  
TrackNumber Tracks TracksFrameRate TracksMarkers TracksMarkersComment  
TracksMarkersCuePointParams TracksMarkersCuePointParamsKey  
TracksMarkersCuePointParamsValue TracksMarkersCuePointType  
TracksMarkersDuration TracksMarkersLocation TracksMarkersName  
TracksMarkersProbability TracksMarkersSpeaker TracksMarkersStartTime  
TracksMarkersTarget TracksMarkersType TracksTrackName TracksTrackType  
Transcript TranscriptLink TranscriptLinkLink TranscriptLinkLinkQualifier  
TransferFunction TransmissionReference Trapped Type TypeStatus URL  
URLA-platform URLUrl UUID Units UprightCenterMode UprightCenterNormX  
UprightCenterNormY UprightDependentDigest UprightFocalLength35mm  
UprightFocalMode UprightFourSegmentsCount UprightPreview  
UprightTransformCount UprightTransform\_0 UprightTransform\_1  
UprightTransform\_2 UprightTransform\_3 UprightTransform\_4 UprightTransform\_5  
UprightVersion Urgency Usage UsageTerms UseGuidelines UsePanoramaViewer  
UserComment UserFields UspsNumber VendorInfo VendorInfoManufacturer  
VendorInfoModel VendorInfoNotes Version VersionID VersionIdentifier Versions  
VersionsComments VersionsEvent VersionsEventAction VersionsEventChanged  
VersionsEventInstanceID VersionsEventParameters VersionsEventSoftwareAgent  
VersionsEventWhen VersionsModifier VersionsModifyDate VersionsVersion  
Vibrance VideoAlphaMode VideoAlphaPremultipleColor  
VideoAlphaPremultipleColorA VideoAlphaPremultipleColorB  
VideoAlphaPremultipleColorBlack VideoAlphaPremultipleColorBlue  
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VideoBitrateMode VideoColorSpace VideoCompressor VideoDisplayAspectRatio  
VideoEncodingProfile VideoFieldOrder VideoFrameRate VideoFrameSize  
VideoFrameSizeH VideoFrameSizeUnit VideoFrameSizeW VideoModDate  
VideoPixelAspectRatio VideoPixelDepth VideoShotType VideoShotTypeIdentifier  
VideoShotTypeName VideoStreamsCount Viewpoint VignetteAmount  
VignetteCorrectionAlreadyApplied VignetteMidpoint VisualColor VisualTechnique  
Volume WaterDepth WebStatement WeightedFlatSubject What WhiteBalance  
WhiteBalance0 WhiteBalance1 WhiteBalance2 WhitePoint Whites2012 WindowsAtom  
WindowsAtomExtension WindowsAtomInvocationFlags WindowsAtomUncProjectPath  
WordCount WorkToDo WorkflowTag WorkflowTagCvId WorkflowTagCvTermId  
WorkflowTagCvTermName WorkflowTagCvTermRefinedAbout XMP XMPToolkit  
XResolution YCbCrCoefficients YCbCrPositioning YCbCrSubSampling YResolution  
Yield

# **APPENDIX 5: Image metadata Web resources**

## **1) Mapping table to map tags between XMP, IPTC and EXIF**

<https://iptc.org/std/photometadata/specification/mapping/iptc-pmd-newsmlg2.html>

## **2) Image metadata and google Images**

<https://iptc.org/standards/photo-metadata/quick-guide-to-iptc-photo-metadata-and-google-images/>

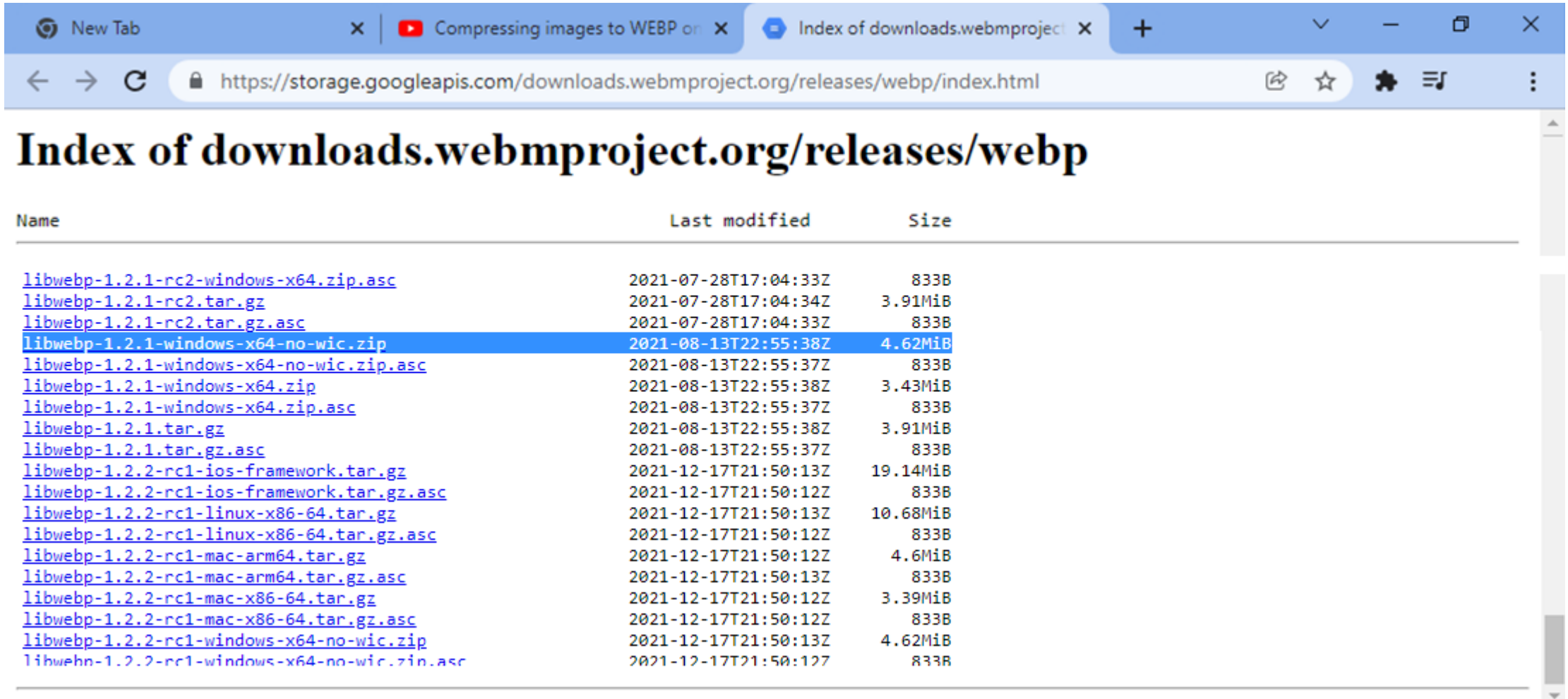
## **3) Check if metadata tags are synchronised across XMP, IPTC and EXIF**

<https://getpmd.iptc.org/getiptcpmd.html>

# How to install CWEBP on windows 10

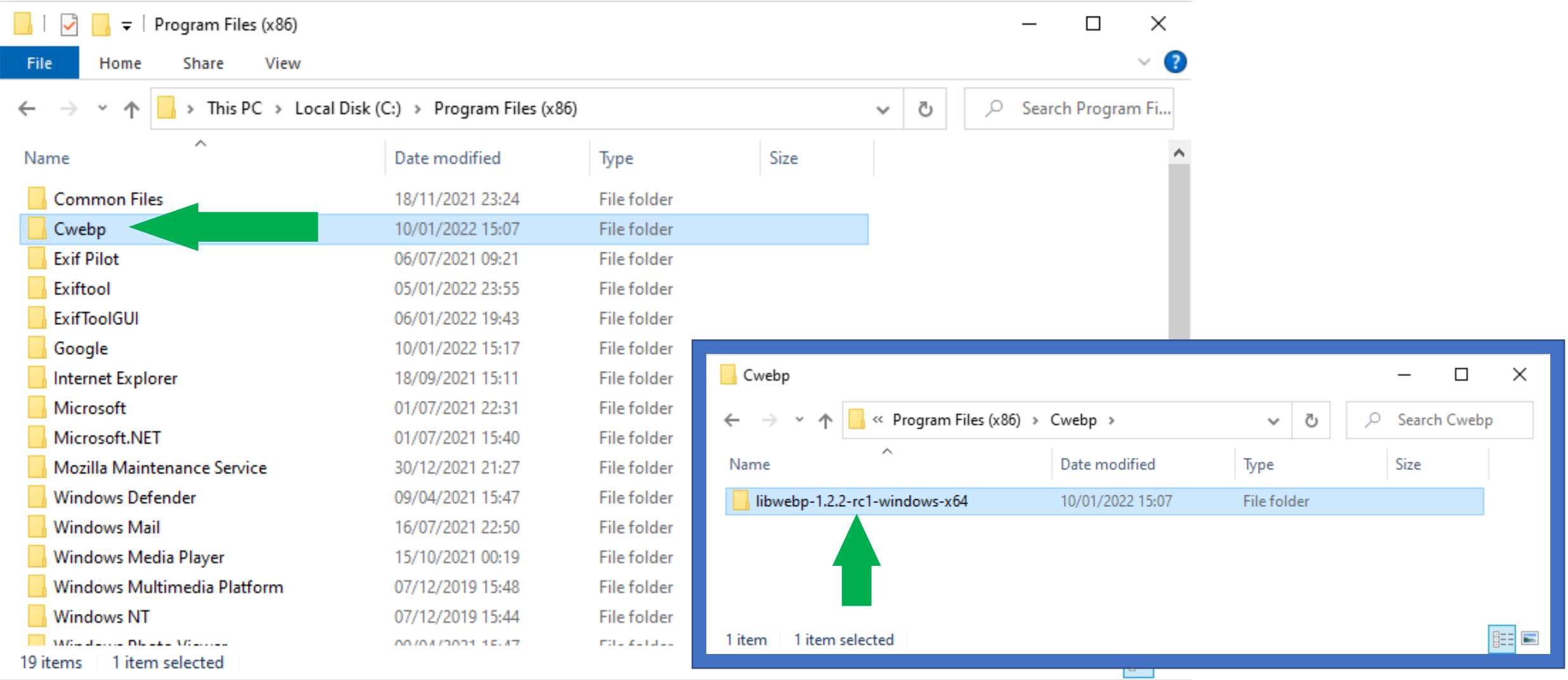
Video tutorial from [TroubleChute](https://www.youtube.com/watch?v=ZcX2h48-lc0) here: <https://www.youtube.com/watch?v=ZcX2h48-lc0>

- 1) Go to <https://storage.googleapis.com/downloads.webmproject.org/releases/webp/index.html> and scroll down to the bottom of the page to find the latest Windows Executable, in this case: [libwebp-1.2.1-windows-x64-no-wic.zip](#) This version is the one that I have got to work.

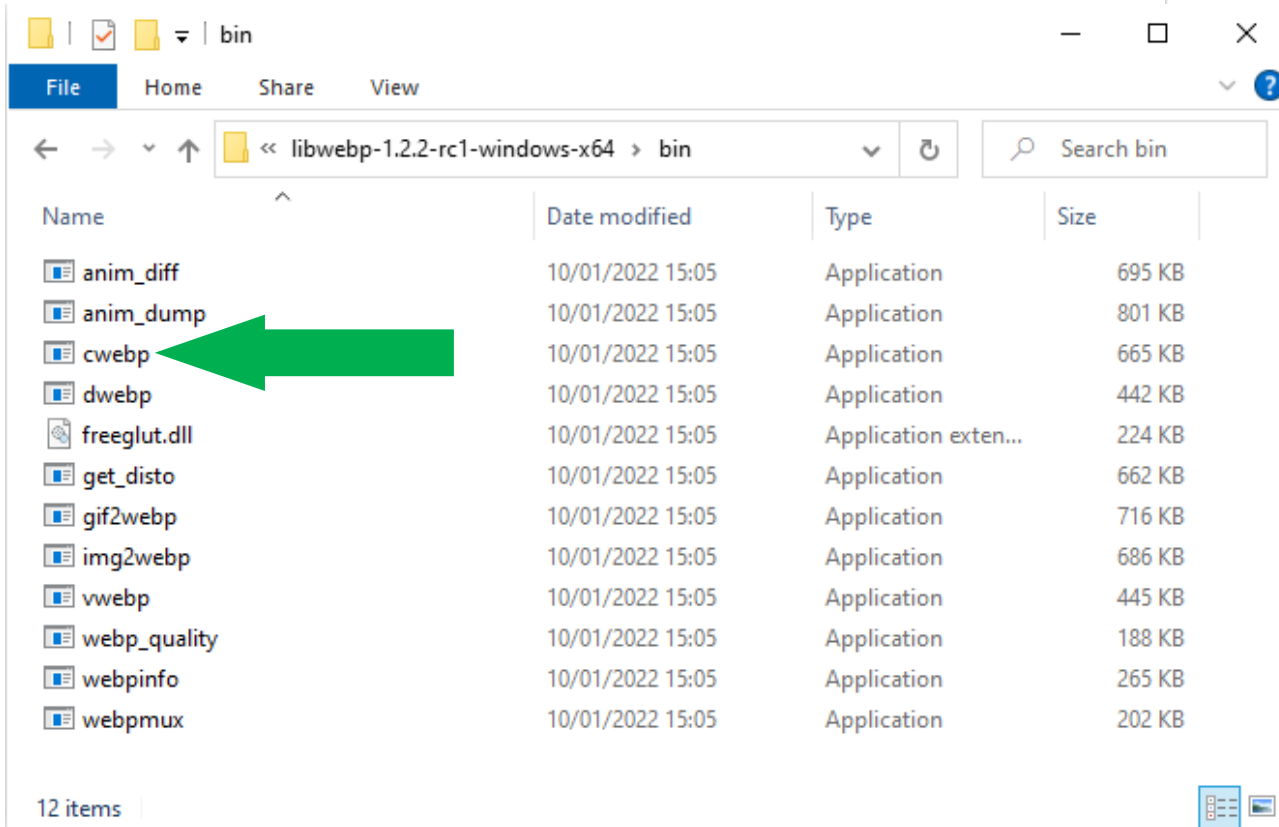
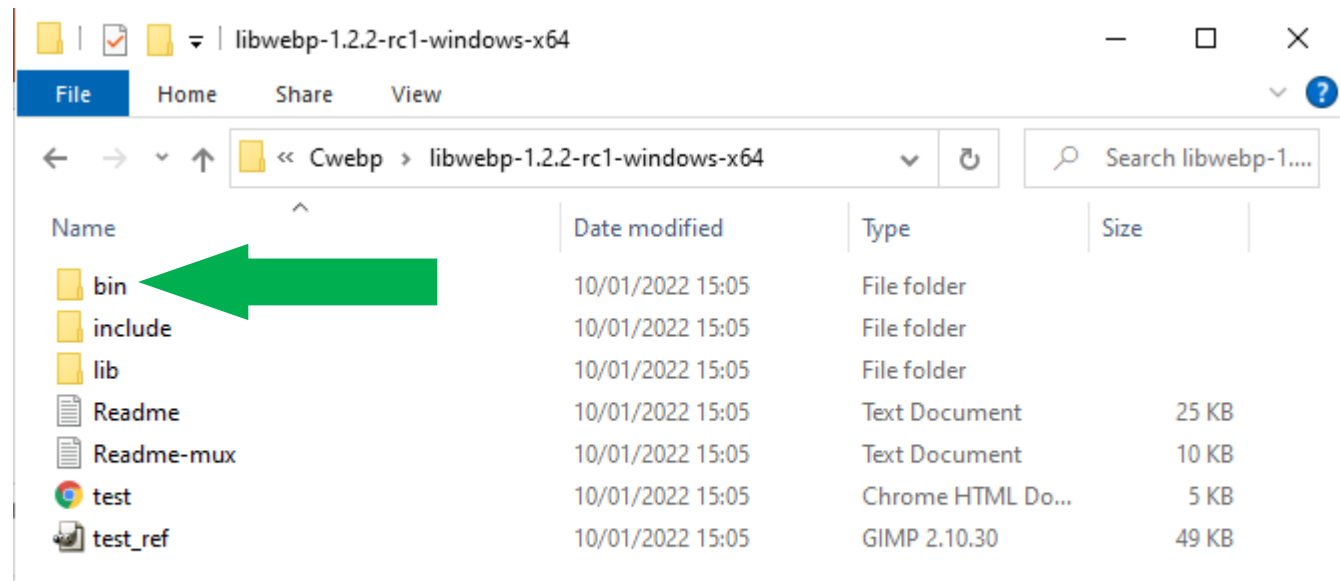


Name	Last modified	Size
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<a href="#">libwebp-1.2.1-rc2.tar.gz</a>	2021-07-28T17:04:34Z	3.91MiB
<a href="#">libwebp-1.2.1-rc2.tar.gz.asc</a>	2021-07-28T17:04:33Z	833B
<a href="#">libwebp-1.2.1-windows-x64-no-wic.zip</a>	2021-08-13T22:55:38Z	4.62MiB
<a href="#">libwebp-1.2.1-windows-x64-no-wic.zip.asc</a>	2021-08-13T22:55:37Z	833B
<a href="#">libwebp-1.2.1-windows-x64.zip</a>	2021-08-13T22:55:38Z	3.43MiB
<a href="#">libwebp-1.2.1-windows-x64.zip.asc</a>	2021-08-13T22:55:37Z	833B
<a href="#">libwebp-1.2.1.tar.gz</a>	2021-08-13T22:55:38Z	3.91MiB
<a href="#">libwebp-1.2.1.tar.gz.asc</a>	2021-08-13T22:55:37Z	833B
<a href="#">libwebp-1.2.2-rc1-ios-framework.tar.gz</a>	2021-12-17T21:50:13Z	19.14MiB
<a href="#">libwebp-1.2.2-rc1-ios-framework.tar.gz.asc</a>	2021-12-17T21:50:12Z	833B
<a href="#">libwebp-1.2.2-rc1-linux-x86-64.tar.gz</a>	2021-12-17T21:50:13Z	10.68MiB
<a href="#">libwebp-1.2.2-rc1-linux-x86-64.tar.gz.asc</a>	2021-12-17T21:50:12Z	833B
<a href="#">libwebp-1.2.2-rc1-mac-arm64.tar.gz</a>	2021-12-17T21:50:12Z	4.6MiB
<a href="#">libwebp-1.2.2-rc1-mac-arm64.tar.gz.asc</a>	2021-12-17T21:50:13Z	833B
<a href="#">libwebp-1.2.2-rc1-mac-x86-64.tar.gz</a>	2021-12-17T21:50:12Z	3.39MiB
<a href="#">libwebp-1.2.2-rc1-mac-x86-64.tar.gz.asc</a>	2021-12-17T21:50:12Z	833B
<a href="#">libwebp-1.2.2-rc1-windows-x64-no-wic.zip</a>	2021-12-17T21:50:13Z	4.62MiB
<a href="#">libwebp-1.2.2-rc1-windows-x64-no-wic.zip.asc</a>	2021-12-17T21:50:12Z	833B

2) Unzip and deposit the contents of the download into a newly created folder in **C:Program Files (x86)**. Name the Folder **Cwebp**. Once done this folder should contain the unzipped subfolder called **libwebp-1.2.1-windows-x64-no-wic**.



3) Within the folder C:\Program Files (x86)\Cwebp\libwebp-libwebp-1.2.1-windows-x64-no-wic, there should be a number of subfolders and files, one folder called bin.

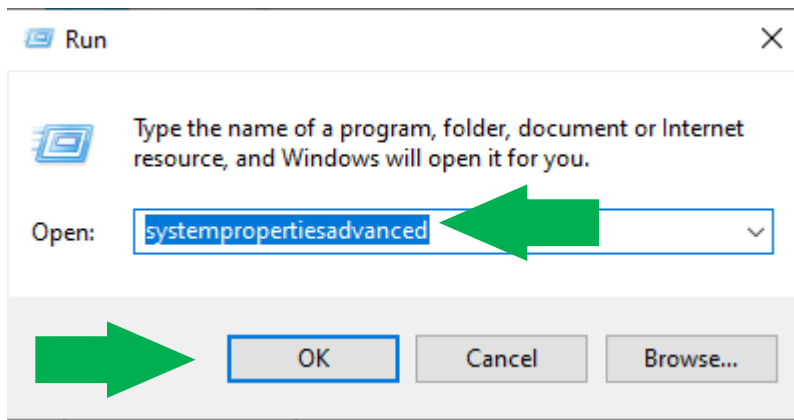


4) Within the folder C:\Program Files (x86)\Cwebp\libwebp-1.2.2-rc1-windows-x64/bin, there should be an executable file called cwebp.exe.

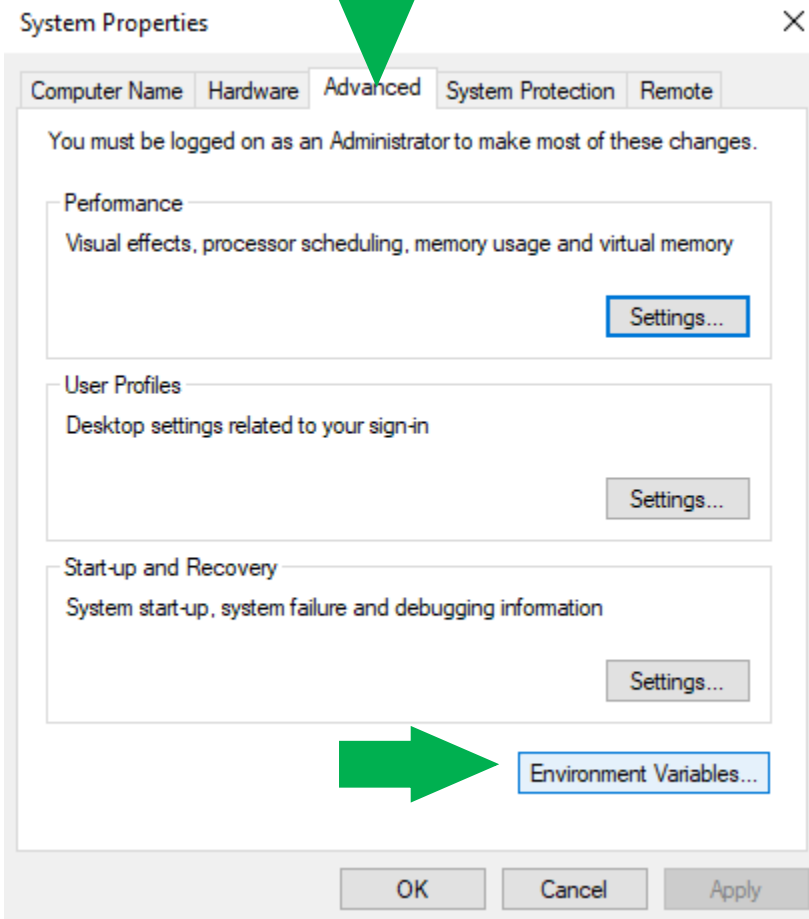
We need to get the path to the folder that contains cwebp.exe

**C:\Program Files (x86)\Cwebp\libwebp-1.2.2-rc1-windows-x64\bin**



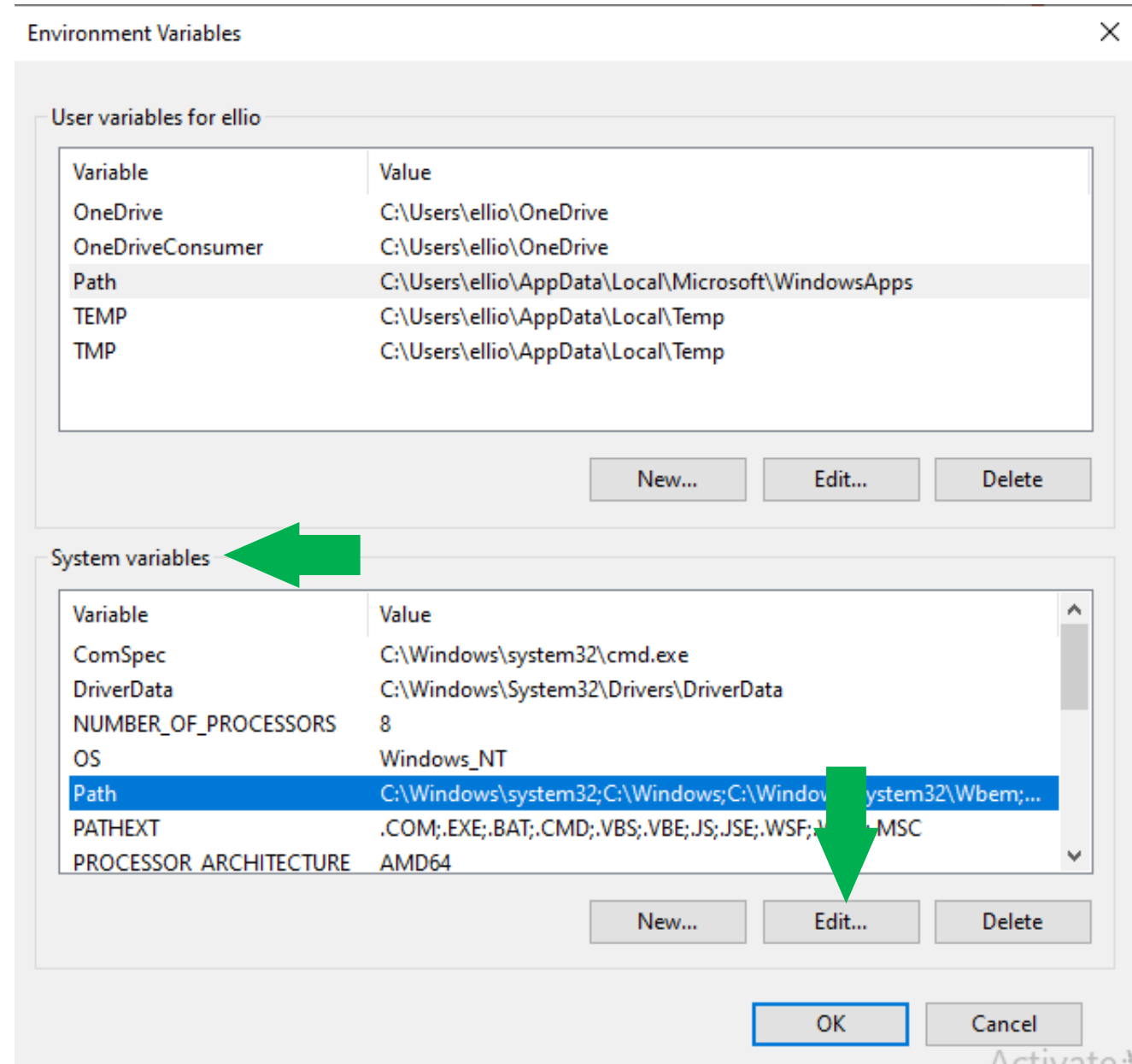


5) Press the **windows key + R** and type in “**systemPropertiesAdvanced**” select ok.



6) On the **advanced tab** click **Environmental Variables.**

7) In the **system variables** select **path** and click **edit.**

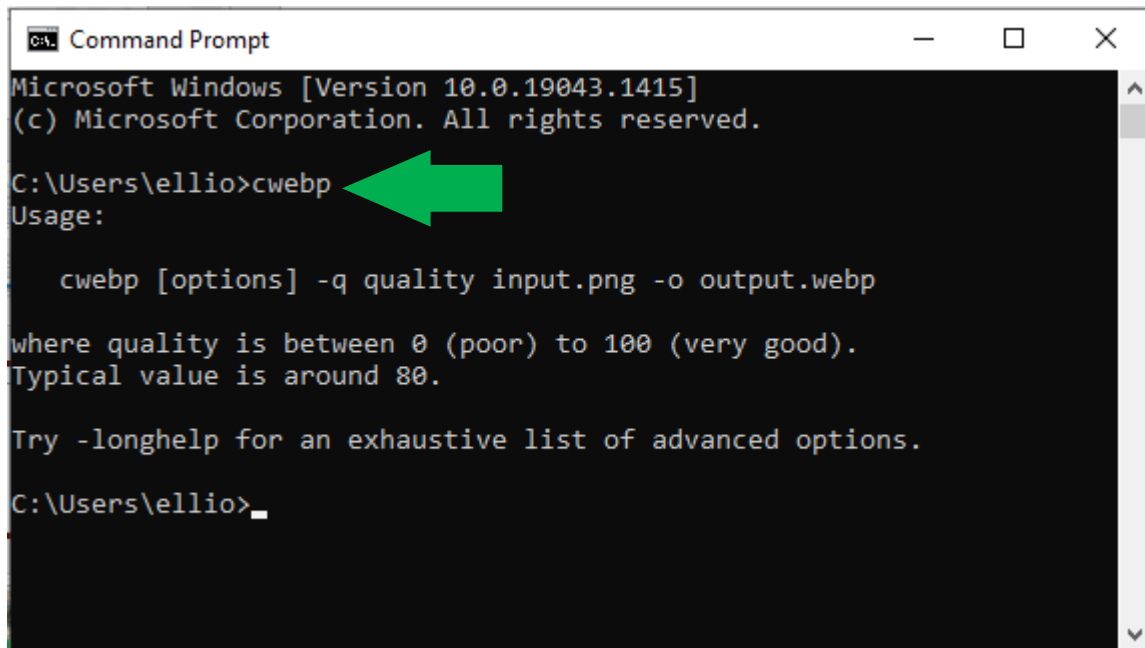
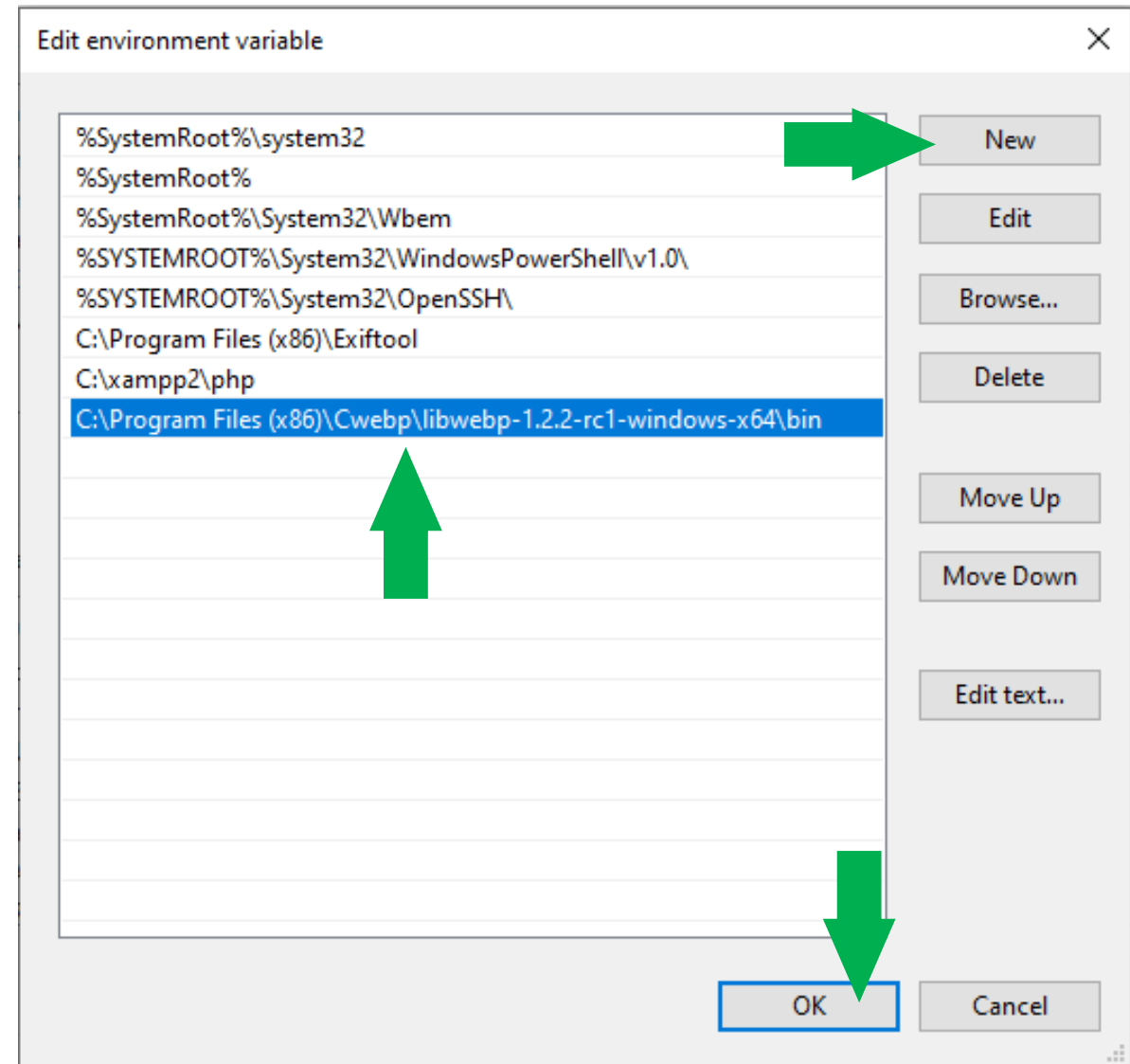


8) In the Edit environmental variables select new and type in the path path to the cwebp.exe folder:

**C:\Program Files (x86)\Cwebp\libwebp-1.2.1-windows-x64-no-wic\bin**

9) Now from the cmd prompt we can check that cwebp is working by typing cwebp. This should give an output of basic photo conversion options.

(However, I had to restart my PC to get cwebp to work in the command prompt.)



# How to Convert jpg to WEBP using CWEBP

```
C:\xampp2\htdocs\lessons\99_BarcelonaTravelHacks\Ver_90 - Photo metadata fixer\public_html\assets\galleryImagesJpgFull\A0000>  
cwebp -q 80 -metadata all "A0000-01.jpg" -o "A0000-01.webp"
```

# Automatically Update JPG Image Metadata for Full-size.jpg & Thumbnail.jpg based on Values in SQL row then Create WEBP Image for each

## SQL TABLE COLUMNS:

\$img-id
\$noIndexTag
\$imgSize
\$imgDateTime
\$ddLat
\$ddLon
\$imgTitle
\$imgDescription
\$photoCreator
\$authorPosition
\$CreditLine
\$CopyrightNotice
\$WebStatementRights
\$pathFullsizeJpg
\$pathThumbnailJpg
\$pathFullsizeWebp
\$pathThumbnailWebp

## TOOLBOX PAGE:

Input:

Single image editor

A) \$img-Id

Multiple Image editor

B) \$img-id,\$img-id,\$img-id etc

C) Folder

## BATCH IMAGE PAGE:

You are about to update x Images. Are you sure?

## SINGLE IMAGE PAGE:

Single image page shows EXIF, EXIF GPS, XMP and IPTC metadata for \$pathFullsizeJpg and \$pathThumbnailJpg. Also shows SQL desired metadata.

Update Metadata button

Update EXIF, EXIF GPS, XMP & IPTC metadata for full-size & thumbnail JPGs.

Convert Metadata updated full-size & thumbnail JPGs to WEBP.

Max\_filesize\_fullsize  
200Kb

Max\_Filesize\_thumbnail  
45Kb

\$pathFullsizeWebp =  
private folder if  
\$noIndexTag is 1, else  
path = public folder

\$pathThumbnailWebp =  
private folder

Webp output image  
filename = \$imgId-  
\$title.webp (convert  
spaces to dashes)

# Chose single image metadata editor or Batch Image editor



## Barcelona Travel Hacks Toolbox (Not available on Live Server)

### Auto-update Image Metadata and auto-generate WEBP images Toolkit

Use this option to view and update metadata for a single image and it's coresponding thumbnail

Enter Image-Id:

Use this option to update metadata multiple images and thier coresponding thumbnails

Enter Image IDs in one of the below formats:

A) To update multiple non sequential images, enter them as a coma delimited string without spaces. i.e. A0000-01,A0000-03,A0000-04

B) To update all images in a sub folder, enter the sub-folder name. i.e. A0000

Enter Image IDs in format A or B



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search...

SQL photo Id: A0000-01

SQL Image size: 4



Fullsize EXIF filename: A0000-01.jpg

Thumbnail EXIF filename: A0000-01.jpg

SQL-DDlon: 41.403035 SQL-DDlat: 2.173608	SQL-DD to DMS	FULL-SIZE IMG	CHECKSUM FULLSIZE IMG	THUMBNAIL IMG	CHECKSUM THUMBNAIL IMG
DDtoDMS Lat Ref:	N	N	N	N	N
DDtoDMS Lat Deg:	41°	41/1	41°	41/1	41°
DDtoDMS Lat Min:	24"	24/1	24"	24/1	24"
DDtoDMS Lat Sec:	10.9'	13900/1000	13.9'	13900/1000	13.9'
DDtoDMS Lon Ref:	E	E	E	E	E
DDtoDMS Lon Deg:	2°	2/1	2°	2/1	2°
DDtoDMS Lon Min:	10"	10/1	10"	10/1	10"
DDtoDMS Lon Sec:	25.0'	29900/1000	29.9'	29900/1000	29.9'

FULL-SIZE IMAGE:  
750 x 1000 px

THUMBNAIL IMAGE:  
200 x 267 px



Metatag Name	SQL table value	Fullsize Image IPTC value	Thumbnail Image IPTC value
Title 2#005	La Sagrada Familia	Undefined	Undefined
Description 2#120	La Sagrada Familia Passion Facade	Undefined	Undefined
Keywords 2#025	spire,crane,sagrada familia,passion facade	Undefined	Undefined
Caption-Writer 2#116	BarcelonaTravelHacks.com	Undefined	Undefined
Author's-Position 2#085	Travel Blogger & coder	Undefined	Undefined
Creator 2#080	BarcelonaTravelHacks.com	Undefined	Undefined
Credit-Line 2#110	BarcelonaTravelHacks.com	Undefined	Undefined
Copyright-Notice 2#116	copyright 2022 BarcelonaTravelHacks.com	Undefined	Undefined
Source 2#115	www.barcelonatravelhacks.com	Undefined	Undefined

Metatag Name	SQL table value	Fullsize Image EXIF value	Thumbnail Image EXIF value
Description 2#120	La Sagrada Familia Passion Facade	charset=Ascii binary comment	charset=Ascii binary comment
Keywords 2#025	spire,crane,sagrada familia,passion facade	ASCIIbinary comment	ASCIIbinary comment
Creator 2#080	BarcelonaTravelHacks.com	BarcelonaTravelHacks.com	BarcelonaTravelHacks.com
Copyright-Notice 2#116	copyright 2022 BarcelonaTravelHacks.com	BarcelonaTravelHacks.com	BarcelonaTravelHacks.com

UPDATE FULLSIZE & THUMBNAIL IMAGE EXIF, XMP & IPTC METADATA THEN CONVERT BOTH INTO WEBP IMAGES




XMP Metadata: image/jpeg, image/jpeg, image/jpeg, image/jpeg, image/jpeg, image/jpeg, image/jpeg, image/jpeg, image/jpeg, image/jpeg type="Seq" BarcelonaTravelHacks.com La sagrada Familia BarcelonaTravelHacks.com type="Bag" #AntonioGaudÃfÃ #GuidÃfÃ #SagradaFamilia #Modernism La sagrada Familia

# View Image Metadata tags for single Image

Click this button to update XMP, IPTC & EXIF metadata for Full-size and thumbnail photos.



This button will write the SQL values to both Full-size and thumbnail Image then convert both to Webp.

# Single Image Metadata updater modal window

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Metatag Name	SQL table value	Fullsize Image EXIF value	Thumbnail Image EXIF value
Description 2#120	La Sagrada Familia Passion Facade	La Sagrada Familia Passion Facade	La Sagrada Familia Passion Facade
Keywords 2#025	spire,crane,sagrada familia,passion facade	ASCIISpire   crane   sagrada familia   passion facade	ASCIISpire   crane   sagrada familia   passion facade

Updating the following metadata fields for image ID: A0000-01 .... Please wait as this process takes 2 mins per image.

All Metadata Updated successfully for A0000-01	Metadata Deleted	EXIF Lat	EXIF Lon	XMP Lat	XMP Lon	EXIF Title	XMP Title	IPTC Title	EXIF Desc	XMP Desc	IPTC Desc	EXIF Keyw	XMP Keyw	IPTC Keyw	EXIF Creator	XMP Creator	IPTC Creator	EXIF CopyNotice	XMP CopyNotice	IPTC CopyNotice	XMP Credit Line	IPTC Credit Line	XMP Source	IPTC Source	XMP Auth Pos	IPTC Auth Pos	XMP Capt Wr	IPTC Capt Wr	XMP Web Stat Rights	XMP Copy Status	JPG to WEBP	WEBP Filesize (Kb)	Full WEBP	Thumb WEBP
Fullsize:	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	178.4		
Thumbnail	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	23.0			





**CLOSE UPDATE IMAGE METADATA MODAL WINDOW**

Activate Windows  
Go to Settings to activate Windows.

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Once the updater has finished writing the metadata to the images after 40 seconds approximately click button to close modal window.

# Batch Image Metadata updater page





## Update the metadata and generate WEBP images for the following Image IDs?

A0001-78, A0001-77, A0001-76, A0001-75, A0001-74, A0001-73, A0001-72, A0001-71, A0001-70, A0001-69, A0001-68, A0001-67, A0001-66, A0001-65, A0001-64, A0001-63, A0001-62, A0001-61, A0001-60, A0001-59, A0001-58, A0001-57, A0001-56, A0001-55, A0001-54, A0001-53, A0001-52, A0001-51, A0001-50, A0001-49, A0001-48, A0001-47, A0001-46, A0001-45, A0001-44, A0001-43, A0001-42, A0001-41, A0001-40, A0001-39, A0001-38, A0001-37, A0001-36, A0001-35, A0001-34, A0001-33, A0001-32, A0001-31, A0001-30, A0001-29, A0001-28, A0001-27, A0001-26, A0001-25, A0001-24, A0001-23, A0001-22, A0001-21, A0001-20, A0001-19, A0001-18, A0001-17, A0001-16, A0001-15, A0001-14, A0001-13, A0001-12, A0001-11, A0001-10, A0001-09, A0001-08, A0001-07, A0001-06, A0001-05, A0001-04, A0001-03, A0001-02, A0001-01,

Update a total of 78 images. Each Image takes 1-2 minutes aprox

**CONFIRM**

Click conform to start the image updater process for all the images listed above.





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Activate Windows  
Go to Settings to activate Windows.


..More



# Batch Image Metadata updater page .... Updating in progress



search...





Update the metadata and generate WEBP images for the following Image IDs?

A0001-78, A0001-77, A0001-76, A0001-75, A0001-74, A0001-73, A0001-72, A0001-71, A0001-70, A0001-69, A0001-68, A0001-67, A0001-66, A0001-65, A0001-64, A0001-63, A0001-62, A0001-61, A0001-60, A0001-59, A0001-58, A0001-57, A0001-56, A0001-55, A0001-54, A0001-53, A0001-52, A0001-51, A0001-50, A0001-49, A0001-48, A0001-47, A0001-46, A0001-45, A0001-44, A0001-43, A0001-42, A0001-41, A0001-40, A0001-39, A0001-38, A0001-37, A0001-36, A0001-35, A0001-34, A0001-33, A0001-32, A0001-31, A0001-30, A0001-29, A0001-28, A0001-27, A0001-26, A0001-25, A0001-24, A0001-23, A0001-22, A0001-21, A0001-20, A0001-19, A0001-18, A0001-17, A0001-16, A0001-15, A0001-14, A0001-13, A0001-12, A0001-11, A0001-10, A0001-09, A0001-08, A0001-07, A0001-06, A0001-05, A0001-04, A0001-03, A0001-02, A0001-01,

Update a total of 78 images. Each Image takes 1-2 minutes aprox. **CONFIRM**

All Metadata Updated successfully for A0001-78	Metadata Deleted	EXIF Lat	EXIF Lon	XMP Lat	XMP Lon	EXIF Title	XMP Title	IPTC Title	EXIF Desc	XMP Desc	IPTC Desc	EXIF Keyw	XMP Keyw	IPTC Keyw	EXIF Creator	XMP Creator	IPTC Creator	EXIF CopyNotice	XMP CopyNotice	IPTC CopyNotice	XMP Credit Line	IPTC Credit Line	XMP Source	IPTC Source	XMP Auth Pos	IPTC Auth Pos	XMP Capt Wr	IPTC Capt Wr	XMP Web Stat Rights	XMP Copy Status	JPG to WEBP	WEBP Filesize (Kb)	Full WEBP
	Fullsize:	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	56.3	Thumb WEBP	
	Thumbnail	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	11.8		

All Metadata Updated successfully for A0001-77	Metadata Deleted	EXIF Lat	EXIF Lon	XMP Lat	XMP Lon	EXIF Title	XMP Title	IPTC Title	EXIF Desc	XMP Desc	IPTC Desc	EXIF Keyw	XMP Keyw	IPTC Keyw	EXIF Creator	XMP Creator	IPTC Creator	EXIF CopyNotice	XMP CopyNotice	IPTC CopyNotice	XMP Credit Line	IPTC Credit Line	XMP Source	IPTC Source	XMP Auth Pos	IPTC Auth Pos	XMP Capt Wr	IPTC Capt Wr	XMP Web Stat Rights	XMP Copy Status	JPG to WEBP	WEBP Filesize (Kb)	Full WEBP
	Fullsize:	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	
	Thumbnail	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK



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# APPENDIX 8: View Image Metadata tags

**Now we see that all image metadata has been updated to the SQL table values.**

[illegible]