ExifTool Metadata reader/writer

START HERE

exiftool *<file>*
Show all metadata

exiftool -r -ext jpg *<dir>*
Recurse, only .jpg

exiftool -*<Tag>* *<file>*
Show one tag

exiftool -csv *<dir>* **> out.csv**
Export to CSV

exiftool -*<Tag>***=***<value>* *<file>*
Write a tag

exiftool -G1 -a -s *<file>*
Group names, duplicates, tag names

exiftool -all= *<file>*
Strip all metadata

exiftool -overwrite_original ...
Skip the _original backup

CONCEPTS

Writing changes the file and leaves a backup named <file>_original next to it. Add -overwrite_original once you trust the command. Tag names ignore case and can be prefixed with a group, e.g. -XMP:Title.

File jpg, tiff, mp4, pdf ...
↓ contains
Groups EXIF, IPTC, XMP, GPS ...
↓ hold
Tags DateTimeOriginal, Make ...
Metadata lives in the file, in several groups

READING

exiftool *<file>*
Show every tag with its value

exiftool -*<Tag>* *<file>*
Show only the named tag

exiftool -s *<file>*
Use tag names instead of descriptions

exiftool -S *<file>*
Very short output: Tag: value

exiftool -G1 -a *<file>*
Show group names and duplicate tags

exiftool -n *<file>*
Raw values, no print conversion
Gives GPS as signed decimals and exposure as numbers.

exiftool -T -*<Tag1>* **-***<Tag2>* *<files>*
Tab-separated table of chosen tags

exiftool -b -*<Tag>* *<file>*
Output binary data, e.g. -ThumbnailImage

exiftool -u -U *<file>*
Also show unknown tags

exiftool -ee *<file>*
Extract embedded data, e.g. video GPS tracks

exiftool -ver
Print the ExifTool version

SELECTING FILES

exiftool -r *<dir>*
Recurse into subdirectories

exiftool -ext *<ext>* *<dir>*
Only process files with this extension

exiftool --ext *<ext>* *<dir>*
Exclude an extension

SELECTING FILES (cont.)

exiftool -if '*<expr>***'** *<files>*
Only files where the expression is true
Tags are written $Make; example: -if '$Make eq "Canon"'.

exiftool -@ *<argfile>*
Read arguments from a file

WRITING

exiftool -*<Tag>***=***<value>* *<file>*
Set a tag

exiftool -*<Tag>***=** *<file>*
Delete a tag

exiftool -all= *<file>*
Delete all metadata

exiftool -*<Tag>***+=***<value>* *<file>*
Add to a list tag, e.g. -Keywords

exiftool -*<Tag>***-=***<value>* *<file>*
Remove a value from a list tag

exiftool -overwrite_original *<file>*
Edit in place, no _original backup

exiftool -overwrite_original_in_place *<file>*
Same, but keep inode and file attributes

exiftool -o *<outfile>* *<file>*
Write the result to a new file

exiftool -P *<file>*
Keep the file modification date

exiftool -delete_original *<dir>*
Delete all _original backups

exiftool -restore_original *<dir>*
Restore files from their _original backups

exiftool -m *<file>*
Ignore minor errors and warnings

DATES AND RENAMING

exiftool -AllDates="*<YYYY:MM:DD HH:MM:SS>***"** *<file>*
Set all three EXIF dates

exiftool -AllDates+=*<h:mm>* *<file>*
Shift all dates forward
Use -= to go backward; format is [Y:M:D]h:m[:s].

DATES AND RENAMING (cont.)

exiftool '-FileName<*DateTimeOriginal***' -d '***%Y%m%d_%H%M%S%%-c.%%e***'** *<dir>*
Rename by capture date
%%-c adds -1, -2 on name clashes; %%e keeps the extension.

exiftool '-Directory<*DateTimeOriginal***' -d '***%Y/%m/%d***'** *<dir>*
Move into date folders

exiftool -o . '-Directory<*DateTimeOriginal***' -d '***%Y/%m***'** *<dir>*
Copy into date folders, keep originals

exiftool '-FileModifyDate<*DateTimeOriginal***'** *<dir>*
Set file mtime from the capture date

exiftool -d '*<fmt>***' -***<Tag>* *<file>*
Print dates in a strftime-style format

COPYING TAGS

exiftool -tagsFromFile *<src>* *<dst>*
Copy the writable tags from src to dst

exiftool -tagsFromFile *<src>* **-***<Tag>* *<dst>*
Copy only the named tag

exiftool -tagsFromFile *<src>* **-all:all** *<dst>*
Copy all tags, keeping their groups

exiftool -all= -tagsFromFile @ -*<Tag>* *<file>*
Strip everything except one tag
@ means the file being processed.

exiftool -tagsFromFile *<src>* **'-xmp:all<***all***'** *<dst>*
Copy all tags into XMP

exiftool '-*<DstTag><SrcTag>***'** *<file>*
Copy one tag into another
Quote it so the shell does not treat < as a redirect.

exiftool -tagsFromFile %d%f.CR2 -r -ext jpg *<dir>*
Copy from a same-named file

GPS

exiftool -gps:all -n *<file>*
Show GPS tags as decimal numbers

GPS (cont.)

exiftool -GPSLatitude=*<n>* **-GPSLatitudeRef=***<N|S>* **-GPSLongitude=***<n>* **-GPSLongitudeRef=***<E|W>* *<file>*
Set coordinates
Latitude and longitude values are positive; the Ref tags carry the sign.

exiftool -gps:all= *<file>*
Remove GPS data

exiftool -geotag *<track.gpx>* *<dir>*
Tag photos from a GPS track log

exiftool -geotag *<log>* **-geosync=***<+-seconds>* *<dir>*
Correct a clock offset

exiftool -geotag *<log>* **'-geotime<***DateTimeOriginal***'** *<dir>*
Match track points by capture time

EXPORT AND IMPORT

exiftool -csv *<dir>* **>** *<out.csv>*
Export tags to CSV

exiftool -csv -*<Tag1>* **-***<Tag2>* *<dir>*
CSV with chosen tags only

exiftool -csv=*<in.csv>* *<dir>*
Import tags from CSV
The SourceFile column selects the file.

exiftool -json *<files>*
Output as JSON

exiftool -p '*<fmt>***'** *<files>*
Custom output format with $Tag

RECIPES

Strip location before sharing

```
exiftool -gps:all= -overwrite_original -r -ext jpg <dir>
```

Shift camera clock error of 1h 30m

```
exiftool -AllDates+=1:30 -overwrite_original \
  -if '$Make eq "<Canon>"' -r <dir>
```

Sort photos into year/month folders

```
exiftool -r '-Directory<DateTimeOriginal' \
  -d '<out>/%Y/%m' <dir>
```

Edit tags in a spreadsheet

```
exiftool -csv -Title -Artist <dir> > tags.csv
# edit tags.csv, keep the SourceFile column
exiftool -csv=tags.csv <dir>
```