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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'exiv2.1' command

\$ man exiv2.1

EXIV2(1) General Commands Manual EXIV2(1)

NAME

exiv2 - Image metadata manipulation tool

SYNOPSIS

exiv2 [options] [action] file ...

DESCRIPTION

exiv2 is a program to read and write Exif, IPTC, XMP metadata and image comments and can read many vendor makernote tags. The program option? ally converts between Exif tags, XMP properties and IPTC datasets as recommended by the Exif Standard, the IPTC Standard, the XMP specifica? tion and Metadata Working Group guidelines.

The following image formats are supported:

Type	Exif	IPTC	XMP	Image	Comments	ICC Profile
ARW	Read	Read	Read	-	-	
AVIF	Read	Read	Read	-	-	
BMP	-	-	-	-	-	
CR2	Read/Write	Read/Write	Read/Write	-		Read/Write
CR3	Read	Read	Read	-		Read
CRW	Read/Write	-	-	Read/Write		-
DNG	Read/Write	Read/Write	Read/Write	-		Read/Write
EPS	-	-	Read/Write	-		-
EXV	Read/Write	Read/Write	Read/Write	Read/Write	Read/Write	Read/Write

GIF	-	-	-	-	-	-
HEIC	Read	Read	Read	-	-	-
HEIF	Read	Read	Read	-	-	-
JP2	Read/Write	Read/Write	Read/Write	-	-	Read/Write
JPEG	Read/Write	Read/Write	Read/Write	Read/Write	Read/Write	Read/Write
MRW	Read	Read	Read	-	-	-
NEF	Read/Write	Read/Write	Read/Write	-	-	Read/Write
ORF	Read/Write	Read/Write	Read/Write	-	-	-
PEF	Read/Write	Read/Write	Read/Write	-	-	Read/Write
PGF	Read/Write	Read/Write	Read/Write	Read/Write	Read/Write	Read/Write
PNG	Read/Write	Read/Write	Read/Write	Read/Write	Read/Write	Read/Write
PSD	Read/Write	Read/Write	Read/Write	-	-	-
RAF	Read	Read	Read	-	-	-
RW2	Read	Read	Read	-	-	-
SR2	Read	Read	Read	-	-	-
SRW	Read/Write	Read/Write	Read/Write	-	-	-
TGA	-	-	-	-	-	-
TIFF	Read/Write	Read/Write	Read/Write	-	-	Read/Write
WEBP	Read/Write	-	Read/Write	-	-	Read/Write
XMP	-	-	Read/Write	-	-	-

? Support for GIF, TGA and BMP images is minimal: the image format is recognized, a MIME type assigned to it and the height and width of the image are determined.

? Reading other TIFF-like RAW image formats, which are not listed in the table, may also work.

ACTIONS

The action argument is only required if it is not clear from the options which action is implied.

pr | print

Print image metadata. This is the default action, i.e., the command `exiv2 image.jpg` will print a summary of the image Exif metadata.

ex | extract

Extract metadata to *.exv, XMP sidecar (*.xmp) and thumbnail image files. Modification commands can be applied on-the-fly.

in | insert

Insert metadata from corresponding *.exv, XMP sidecar (*.xmp) and thumbnail files. Use option -S .suf to change the suffix of the input files. Since files of any supported format can be used as input files, this command can be used to copy the metadata between files of different formats. Modification commands can be applied on-the-fly.

rm | delete

Delete image metadata from the files.

ad | adjust

Adjust Exif timestamps by the given time. Requires at least one of the options -a time, -Y yrs, -O mon or -D day.

mo | modify

Apply commands to modify (add, set, delete) the Exif, IPTC and XMP metadata of image files. Requires option -c, -m or -M.

mv | rename

Rename files and/or set file timestamps according to the Exif create timestamp. Uses the value of tag Exif.Photo.DateTimeOriginal or, if not present, Exif.Image.DateTime to determine the timestamp. The filename format can be set with -r fmt, timestamp options are -t and -T.

fi | fixiso

Copy the ISO setting from one of the proprietary Nikon or Canon maker note ISO tags to the regular Exif ISO tag, Exif.Photo.ISOSpeedRatings. Does not overwrite an existing standard Exif ISO tag.

fc | fixcom

Fix the character encoding of Exif Unicode user comments. Decodes the comment using the auto-detected or specified character encoding and writes it back in UCS-2. Use option -n to specify the current encoding of the comment if necessary.

COMMAND SUMMARY

exiv2 [opt [arg]]+ [act] file ...

option [arg] long option description

- a tim --adjust Modify time stamps. [+|-]HH[:MM[:SS[.mmm]]]
- b --binary This option is obsolete and should not be used. Reserved for test suite (with option -pC)
- c txt --comment JPEG comment string to set in the image ('modify' action). ...
- d tgt --delete Delete target(s) for the 'delete' action. ...
- D +-n --days Time adjustment by a positive or negative number of days ...
- e tgt --extract Extract target(s) for the 'extract' action.
- f --force Do not prompt before overwriting existing files ...
- F --Force Do not prompt before renaming files (Force rename) ...
- g key --grep Only output info for this Exiv2 key
- h --help Display help and exit.
- i tgt --insert Insert target(s) for the 'insert' action. ...
- k --keep Preserve file timestamps when updating files
- K key --key Report key. Similar to -g (grep) however key must match exactly.
- l dir --location Location (directory) for files to be inserted or extracted.
- m file --modify read commands from cmd-file
- M cmd --Modify Command line for the 'modify' action. ...
- n enc --encode Charset to decode Exif Unicode user comments. See: man 3 iconv_open
- O +-n --months Time adjustment by a positive or negative number of months, ...
- p mod --print Print report (common reports)
- P flg --Print Print report (fine grained control)
- q --quiet Silence warnings and error messages from the Exiv2 library ...
- Q lvl --log Set the log-level to 'd'(ebug), 'i'(nfo), 'w'(arning), 'e'(rror)
- r fmt --rename Filename format for the 'rename' action. ...
- S suf --suffix Use suffix .suf for source files for insert command.
- t --timestamp Set the file timestamp according to the Exif create timestamp ...
- T --Timestamp Only set the file timestamp according to Exif create timestamp ...
- u --unknown Show unknown tags ...
- v --verbose verbose
- V --version Show the program version and exit.
- Y +-n --years Time adjustment by a positive or negative number of years ...

act pr | ex | in | rm | ad | mo | mv | fi | fc
 print, extract, insert, delete, adjust, modify, rename, fixiso, fixcom

cmd See "Commands" below.

flg E | I | X | x | g | k | l | n | y | c | s | v | t | h
 Exif, IPTC, XMP, num, grp, key, label, name, type, count, size, vanilla, translated, hex

fmt Default format is %Y%m%d_%H%M%S.

lvl d | i | i | w | e
 debug, info, warning, error

mod s | a | e | t | v | h | i | x | c | p | i | C | R | S | X
 summary, all, exif, translated, vanilla, hex, iptc, xmp, comment, preview,
 ICC Profile, Recursive Structure, Simple Structure, raw XMP

tgt a | c | e | i | p | t | x | C | X | XX | -
 all, comment, exif, iptc, preview, thumb, xmp, ICC Profile, SideCar, RawXMP, stdin/out

OPTIONS

- h Display help and exit.
- V Show the program version and exit.
 When -V is combined with -v (Verbose version), build information is printed to standard output along with a list of shared libraries which have been loaded into memory. Verbose version is supported on Windows (MSVC, Cygwin and MinGW builds), macOS and Linux and is provided for test and debugging.
- v Be verbose during the program run.
- q Silence warnings and error messages from the Exiv2 library during the program run (quiet). Note that options -v and -q can be used at the same time.
- Q lvl Set the log-level to 'd'(ebug), 'i'(nfo), 'w'(arning), 'e'(rror) or 'm'(ute). The default log-level is 'w'. -Qm is equivalent to -q. All log messages are written to standard error.
- u Show unknown tags (default is to suppress tags which don't have a name).
- g key Only keys which match the given key (grep).
 Multiple -g options can be used to filter info to less keys. Example: exiv2 -v -V -g webready -g time. The default exiv2 com?

mand prints a "summary report" which is quite short. When you use -g without a -pmod option, you do not get a summary report and in effect you get -g pattern -pa image ...

```
$ bin/exiv2 -g Date http://clanmills.com/Stonehenge.jpg
```

```
Exif.Image.DateTime          Ascii  20 2015:07:16 20:25:28
Exif.Photo.DateTimeOriginal  Ascii  20 2015:07:16 15:38:54
Exif.Photo.DateTimeDigitized Ascii  20 2015:07:16 15:38:54
Exif.NikonWt.DateDisplayFormat Byte   1  Y/M/D
Exif.GPSInfo.GPSDateStamp    Ascii  11 2015:07:16
Xmp.xmp.ModifyDate           XmpText 25 2015-07-16T20:25:28+01:00
```

You may use -pmod filters to further filter output. For exam?

ple:

```
$ bin/exiv2 -px -g Date http://clanmills.com/Stonehenge.jpg
```

```
Xmp.xmp.ModifyDate           XmpText 25 2015-07-16T20:25:28+01:00
```

The option -g (--grep) applies to keys and not values.

The key may finish with the optional modifier /i to indicate case insensitive.

-K key Only report data for given key.

Multiple -K options can be used to report more than a single key.

```
$ exiv2 -K Exif.Photo.DateTimeDigitized -K Exif.Photo.DateTimeOriginal -pt R.jpg
```

```
Exif.Photo.DateTimeOriginal Ascii  20 2011:09:18 16:25:48
```

```
Exif.Photo.DateTimeDigitized Ascii  20 2011:09:18 16:25:48
```

-n enc Charset to use to decode Exif Unicode user comments. enc is a name understood by iconv_open(3), e.g., 'UTF-8'.

-k Preserve file timestamps when updating files (keep). Can be used with all options which update files. The flag is ignored by read-only options.

-t Set the file timestamp according to the Exif create timestamp in addition to renaming the file (overrides -k). This option is only used with the 'rename' action. See Exif DateTime below for additional information.

-T Only set the file timestamp according to the Exif create time?

stamp, do not rename the file (overrides -k). This option is only used with the 'rename' action. Note: On Windows you may have to set the TZ environment variable for this option to work correctly. See Exif DateTime below for additional information.

-f,-F These options are used by the commands 'rename' and 'extract' to determine the file overwrite policy. These options are usually combined with -v/--verbose to provide additional status output. The options --force and --Force apply to the 'rename' command. The 'extract' command treats --force and --Force as permission to overwrite.

The default behaviour is to prompt the user.

-f = Do not prompt before overwriting existing files.

-F = Do not prompt before renaming files. Appends '_1' ('_2', ...) to the name of the new file. For example:

```
$ curl --silent -O http://clanmills.com/Stonehenge.jpg
```

```
$ exiv2 --verbose --Force rename Stonehenge.jpg
```

```
File 1/1: Stonehenge.jpg
```

```
Renaming file to ./20150716_153854.jpg
```

```
$ curl --silent -O http://clanmills.com/Stonehenge.jpg
```

```
$ exiv2 --verbose --Force rename Stonehenge.jpg
```

```
File 1/1: Stonehenge.jpg
```

```
Renaming file to ./20150716_153854_1.jpg
```

The 'rename' command will only overwrite files when the option --force is used. The option --Force is provided to avoid unintentional loss of valuable image files.

The 'extract' command will overwrite files when either --force or --Force is used. Overwriting extracted files will not cause the loss of image files.

-r fmt Filename format for the 'rename' action. The format string fol?

lows strftime(3) and supports the following keywords:

:basename: original filename without extension

:dirname: name of the directory holding the original file

:parentname: name of parent directory

Default filename format is %Y%m%d_%H%M%S.

-a time

Time adjustment in the format [-]HH[:MM[:SS]]. This option is only used with the 'adjust' action. Examples: 1 adds one hour, 1:01 adds one hour and one minute, -0:00:30 subtracts 30 seconds. See Exif DateTime below for additional information.

-Y yrs Time adjustment by a positive or negative number of years, for the 'adjust' action.

-O mon Time adjustment by a positive or negative number of months, for the 'adjust' action.

-D day Time adjustment by a positive or negative number of days, for the 'adjust' action.

-p mode

Print mode for the 'print' action. Possible modes are:

- s : print a summary of the Exif metadata (the default)
- a : print Exif, IPTC and XMP metadata (shortcut for -Pkyct)
- e : print Exif metadata (shortcut for -PEkycv)
- t : interpreted (translated) Exif tags (-PEkyct)
- v : plain Exif tag values (-PExgnycv)
- h : hexdump of the Exif data (-PExgnycsh)
- i : IPTC datasets (-PIkyct)
- x : XMP properties (-PXkyct)
- c : JPEG comment
- p : list available image previews, sorted by preview image size in pixels
- C : print image ICC Profile (jpg, png, tiff, webp, cr2, jp2 only)
- R : print image structure recursively (jpg, png, tiff, webp, cr2, jp2 only)
- S : print image structure information (jpg, png, tiff, webp, cr2, jp2 only)
- X : print "raw" XMP (jpg, png, tiff, webp, cr2, jp2 only)

-P flgs

Print flags for fine control of the tag list ('print' action).

Allows control of the type of metadata as well as data columns included in the print output. Valid flags are:

- E : include Exif tags in the list

I : IPTC datasets

X : XMP properties

x : print a column with the tag number

g : group name

k : key

l : tag label

n : tag name

y : type

c : number of components (count)

s : size in bytes

v : plain data value (vanilla values)

V : plain data value AND the word 'set ' (for use with exiv2 -m-)

t : interpreted (translated) human readable data

h : hexdump of the data

-d tgt Delete target(s) for the 'delete' action. Possible targets are:

a : all supported metadata (the default)

e : Exif section

t : Exif thumbnail only

i : IPTC data

x : XMP packet

c : JPEG comment

C : ICC Profile

I : All IPTC data

-i tgt Insert target(s) for the 'insert' action. Possible targets are

the same as those for the -d option, plus an optional modifier:

X : Insert metadata from an XMP sidecar file <file>.xmp. The re?

maining insert targets determine what metadata to insert from

the sidecar file. Possible are Exif, IPTC and XMP and the de?

fault is all of these. Note that the inserted XMP properties in?

clude those converted to Exif and IPTC.

XX: Insert "raw" XMP metadata from a sidecar (see option -pX)

- : Read from stdin. This option is intended for "filter" oper?

ations such as:

\$ exiv2 -e{tgt}- filename | xmllint | exiv2 -i{tgt}- file?

name

Only JPEG thumbnails can be inserted (not TIFF thumbnails), and must be named file-thumb.jpg.

-e tgt Extract target(s) for the 'extract' action. Possible targets are the same as those for the -d option, plus a target to extract preview images and a modifier to generate an XMP sidecar file:
p[<n>[,<m> ...]] : Extract preview images. The optional comma separated list of preview image numbers is used to determine which preview images to extract. The available preview images and their numbers are displayed with the 'print' option -pp.

C : Extract embedded ICC profile to <file>.icc

X : Extract metadata to an XMP sidecar file <file>.xmp. The remaining extract targets determine what metadata to extract to the sidecar file. Possible are Exif, IPTC and XMP and the default is all of these.

XX: Extract "raw" XMP metadata to a sidecar (see -pX)

You may not use modify commands with the -eXX option and only XMP is written to the sidecar.

- Output to stdout (see -i tgt for an example of this feature)

-c txt JPEG comment string to set in the image ('modify' action). This option can also be used with the 'extract' and 'insert' actions to modify metadata on-the-fly.

-m file

Command file for the 'modify' action. This option can also be used with the 'extract' and 'insert' actions to modify metadata on-the-fly. -m- represents standard-input.

-M cmd Command line for the 'modify' action. This option can also be used with the 'extract' and 'insert' actions to modify metadata on-the-fly. The format for the commands is the same as that of the lines of a command file.

-l dir Location (directory) for files to be inserted or extracted.

-S .suf

Use suffix .suf for source files in 'insert' action.

COMMANDS

Commands for the 'modify' action can be read from a command file, e.g.,

```
$ exiv2 -m cmd.txt image.jpg
```

or given on the command line, as in

```
$ exiv2 -M"add Iptc.Application2.Credit String Mr. Smith" image.jpg
```

Note the quotes. Multiple -m and -M options can be combined, and a non-standard XMP namespace registered.

```
$ exiv2 -M"reg myprefix http://ns.myprefix.me/" -M"add Xmp.myprefix.Whom Mr. Smith" -M"set Exif.Image.Artist Mr. Smith" image.jpg
```

When writing Exif, IPTC and XMP metadata, exiv2 enforces only a correct metadata structure. It is possible to write tags with types and values different from those specified in the standards, duplicate Exif tags, undefined tags, or incomplete metadata. While exiv2 is able to read all metadata that it can write, other programs may have difficulties with images that contain non standard-conforming metadata.

Command format

The format of a command is

```
set | add | del key [[type] value]
```

set Set the value of an existing tag with a matching key or add the tag.

add Add a tag (unless key is a non-repeatable IPTC key; nothing prevents you from adding duplicate Exif tags).

del Delete all occurrences of a tag (requires only a key).

key Exiv2 Exif, IPTC or XMP key.

type Exif keys: Byte | Ascii | Short | Long | Rational | Undefined |

SShort | SLong | SRational | Comment

IPTC keys: String | Date | Time | Short | Undefined

XMP keys: XmpAlt | XmpBag | XmpSeq | LangAlt

A default type is used if none is explicitly given. The default is determined based on key.

value The remaining text on the line is the value. It can optionally be enclosed in single quotes ('value') or double quotes

("value").

The value is optional. Not providing any value is equivalent to an empty value ("") and is mainly useful to create an XMP array property, e.g., a bag.

The format of Exif Comment values include an optional charset specification at the beginning. Comments are used by the tags Exif.Photo.UserComment, Exif.GPSInfo.GPSProcessingMethod and Exif.GPSInfo.GPSAreaInformation. Comments are stored as Undefined tags with an 8 byte encoding definition follow by the encoded data. The charset is specified as follows:

```
[charset=Ascii|Jis|Unicode|Undefined] comment
```

charset=Undefined is the default

```
$ exiv2 -M'set Exif.Photo.UserComment charset=Ascii My photo' x.jpg
```

```
$ exiv2 -pa --grep UserComment x.jpg
```

```
Exif.Photo.UserComment      Undefined 16 My photo
```

```
$ exiv2 -pv --grep UserComment x.jpg
```

```
0x9286 Photo      UserComment Undefined 16 charset=Ascii My photo
```

```
$ exiv2 -M'set Exif.Photo.UserComment charset=Unicode \u0052\u006f\u0062\u0069\u006e' x.jpg
```

```
$ exiv2 -pa --grep UserComment x.jpg
```

```
Exif.Photo.UserComment      Undefined 18 Robin
```

```
$ exiv2 -pv --grep UserComment x.jpg
```

```
0x9286 Photo      UserComment      Undefined 18 charset=Unicode Robin
```

```
$ exiv2 -M'set Exif.GPSInfo.GPSProcessingMethod HYBRID-FIX' x.jpg
```

```
$ exiv2 -pa --grep ProcessingMethod      x.jpg
```

```
Exif.GPSInfo.GPSProcessingMethod      Undefined 18 HYBRID-FIX
```

```
$ exiv2 -pv --grep ProcessingMethod      x.jpg
```

```
0x001b GPSInfo    GPSProcessingMethod      Undefined 18 HYBRID-FIX
```

The format for an IPTC Date value is: YYYY-MM-DD (year, month, day)

The format for an IPTC Time value is: HH:MM:SS (hours, minutes, seconds) and may optionally be followed by: -HH:MM or +HH:MM (hours, minutes ahead/behind UTC)

The format of Rational (and SRational) is one of: integer | in?

teger/integer | Fnumber | number

Rational Examples:

```
$ exiv2 "-Mset Exif.Photo.MaxApertureValue 557429/62500" X.jpg
```

```
$ exiv2 "-Mset Exif.Photo.MaxApertureValue F5.6" X.jpg
```

The Rational format Fnumber is for the convenience of setting aperture values. Aperture values are stored in Exif as an APEX value which can be evaluated by the expression:

$$\text{apex-value} = \log(\text{Fnumber}) * 2.0 / \log(2.0)$$
$$\text{number} = \exp(\text{apex-value} * \log(2.0) / 2.0)$$

The Rational format Fnumber is valid for any Rational, even when the key is not an Aperture. More information about APEX value is available from: http://en.wikipedia.org/wiki/APEX_system

The format of XMP LangAlt values includes an optional language qualifier:

```
lang="language-code" text
```

The double quotes around the language-code are optional. If no language qualifier is supplied, then the value of "x-default" is used. More information on the language format can be found at:

<https://www.ietf.org/rfc/rfc3066.txt>

```
$ exiv2 -M'set Xmp.dc.title lang="de-DE" Euros' X.jpg
```

```
$ exiv2 -M'set Xmp.dc.title lang="en-GB" Pounds' X.jpg
```

```
$ exiv2 -M'set Xmp.dc.title lang="en-US" In God We Trust' X.jpg
```

```
$ exiv2 -M'set Xmp.dc.title lang=fr-FR Euros' X.jpg
```

```
$ exiv2 -M'set Xmp.dc.title lang=jp Yen' X.jpg
```

```
$ exiv2 -M'set Xmp.dc.title All others pay cash' X.jpg
```

To remove a language specification, set the value to " (empty string)

```
$ exiv2 -M'set Xmp.dc.title lang="en-US" X.jpg
```

To remove all language specifications, delete the key:

```
$ exiv2 -M'del Xmp.dc.title' X.jpg
```

To register additional XMP namespaces, combine the command with:

```
reg prefix namespace
```

Empty lines and lines starting with # in a command file are ignored (comments). Remaining lines are commands as described above.

EXIF TAGNAMES AND VALUES

Exiv2 displays metadata tags and values.

The tag is a triplet of Family.Group.Tagname. The following groups are defined for the family Exif:

GPSInfo	Canon	Fujifilm	NikonMe	OlympusFe7	SonyMisc2b
Image	CanonCf		NikonPc	OlympusFe9	SonyMisc3c
Image2	CanonCs	Nikon1	NikonPreview	OlympusFi	SonyMinolta
Image3	CanonFi	Nikon2	NikonSi01xx	Olympuslp	SonySInfo1
Iop	CanonPa	Nikon3	NikonSi02xx	OlympusRd	
MakerNote	CanonPi	NikonAFT	NikonSiD300a	OlympusRd2	Samsung2
MpflInfo	CanonPr	NikonAf	NikonSiD300b	OlympusRi	SamsungPictureWizard
Photo	CanonSi	NikonAf2	NikonSiD40		SamsungPreview
SubImage1	CanonTi	NikonAf22	NikonSiD80	Sigma	
SubImage2		NikonCb1	NikonVr		
SubImage3	Casio	NikonCb2	NikonWt	Sony1	
SubImage4	Casio2	NikonCb2a		Sony1Cs	
SubImage5		NikonCb3	Olympus	Sony1Cs2	
SubImage6	Minolta	NikonCb4	Olympus2	Sony1MltCs7D	
SubImage7	MinoltaCs5D	NikonFi	OlympusCs	Sony1MltCsA100	
SubImage8	MinoltaCs7D	NikonFI1	OlympusEq	Sony1MltCsNew	
SubImage9	MinoltaCsNew	NikonFI2	OlympusFe1	Sony1MltCsOld	
SubThumb1	MinoltaCsOld	NikonFI3	OlympusFe2	Sony2	
Thumbnail		Nikonli	OlympusFe3	Sony2Cs	
	Panasonic	NikonLd1	OlympusFe4	Sony2Cs2	
Pentax	PanasonicRaw	NikonLd2	OlympusFe5	Sony2Fp	
PentaxDng		NikonLd3	OlympusFe6	SonyMisc1	

Exiv2 supports Exif 2.2 Standard Tags. Exiv2 also supports reading and writing manufacturer's MakerNote. The information in Exif.Photo.MakerNote is encoded as manufacturer's sub-records. For example, CanonCs are Camera Settings, NikonAf are Nikon Auto Focus records, NikonCb are Nikon Color Balance Records. Every tag is defined by a unique tagId

(16 bit integer) which is unique within a Group.

You can query Exiv2 groups and tags with the `sample` program `taglist` which is documented in `README-SAMPLES.md`

Exif Metadata values are defined in the Exif Standard. All data is an array of data elements. The Count defines the number elements in the array. All elements in an array have the same type.

Type	Explanation
1 BYTE	An 8-bit unsigned integer.
2 ASCII	7-bit ASCII. NUL terminated.
3 SHORT	A 16-bit (2-byte) unsigned integer.
4 LONG	A 32-bit (4-byte) unsigned integer
5 RATIONAL	Two LONGs. Numerator, denominator.
7 UNDEFINED	An 8-bit byte.
8 SSHORT	A 16-bit (2-byte) signed integer.
9 SLONG	A 32-bit (4-byte) signed integer.
10 SRATIONAL	Two SLONGs. Numerator, denominator.

The printing flag `t` = translated and is intended for human use.

Scripts should never use translated values as they are localised and the format may change as Exiv2 evolves. The printing flag `v` reports the values recorded in the metadata and should be used by scripts.

Exif DateTime

An Exif DateTime string is stored as 20 ascii bytes (including trailing nul) in the format:

YYYY:MM:DD HH:MM:SS

The `exiv2` command-line program options `-t` and `-T` will accept files in which the Date has been incorrectly stored as YYYY-MM-DD. The option `-a` enables the user to adjust the DateTime in the file and applies the YYYY:MM:DD HH:MM:SS standard.

CONFIGURATION FILE

Exiv2 can read an optional configuration file `~/.exiv2` on Unix systems and `%USERPROFILE%\exiv2.ini` on Windows (using a Visual Studio build). Cygwin and MinGW/msys2 follow the unix convention and use `~/.exiv2` You can determine the location of the configuration file with the command:

```
$ exiv2 --verbose --version --grep config_path
```

```
exiv2 0.27.0.1
```

```
config_path=/Users/rmills/.exiv2
```

The purpose of the configuration file is to define your own lenses for recognition by Exiv2. The configuration file is in Windows .ini format and has sections for each of the major camera manufactures canon, nikon, pentax, minolta, olympus and sony. The lens metadata is stored as a integer called the lensID. You can change the lens name associated with any lensID.

```
$ cat ~/.exiv2
```

```
[nikon]
```

```
146=Robin's Sigma Lens <--- The name of your lens
```

You obtain the lensID for your camera with the command:

```
$ exiv2 -pv --grep lens/i http://clanmills.com/Stonehenge.jpg
```

```
0x0083 Nikon3    LensType      Byte    1 14
0x0084 Nikon3    Lens          Rational  4 180/10 2500/10 35/10 63/10
0x008b Nikon3    LensFStops    Undefined 4 55 1 12 0
0x000c NikonLd3  LensIDNumber  Byte    1 146 <--- This number
0x000d NikonLd3  LensFStops    Byte    1 55
```

EXAMPLES

```
$ exiv2 *.jpg
```

Prints a summary of the Exif information for all JPEG files in the directory. The summary report is rather brief and presentation does not use the Family.Group.Tag convention.

If you use --grep pattern, the default becomes -pa. See -g/grep above.

```
$ exiv2 -g Date http://clanmills.com/Stonehenge.jpg
```

```
$ exiv2 -pi image.jpg
```

Prints the IPTC metadata of the image.

```
$ exiv2 rename img_1234.jpg
```

Renames img_1234.jpg (taken on 13-Nov-05 at 22:58:31) to 20051113_225831.jpg

```
$ exiv2 -r'basename_%Y%m' rename img_1234.jpg
```

Renames img_1234.jpg to img_1234_200511.jpg


```
$ exiv2 -et img1.jpg img2.jpg
```

Extracts the Exif thumbnails from the two files into img1-thumb.jpg and img2-thumb.jpg.

```
$ exiv2 -it img1.jpg img2.jpg
```

Inserts (copies) metadata from img1.exv to img1.jpg and from img2.exv to img2.jpg.

```
$ exiv2 -ep1,2 image.jpg
```

Extracts previews 1 and 2 from the image to the files image-preview1.jpg and image-preview2.jpg.

```
$ exiv2 -eiX image.jpg
```

Extracts IPTC datasets into an XMP sidecar file image.xmp and in the process converts them to "IPTC Core" XMP schema.

```
$ exiv2 -iixX image.jpg
```

Inserts IPTC and XMP metadata from an XMP sidecar file image.xmp into image.jpg. The resulting IPTC datasets are converted from the "IPTC Core" XMP schema properties in the sidecar file to the older IPTC IIM4 format. The inserted XMP properties include those in the "IPTC Core" XMP schema.

```
$ exiv2 -M"set Exif.Photo.UserComment charset=Ascii New Exif comment" image.jpg
```

Sets the Exif comment to an ASCII string.

```
$ exiv2 -M"set Exif.GPSInfo.GPSLatitude 4/1 15/1 33/1" \ -M"set Exif.GPSInfo.GPSLatitudeRef N" image.jpg
```

Sets the latitude to 4 degrees, 15 minutes and 33 seconds north. The Exif standard stipulates that the GPSLatitude tag consists of three rational numbers for the degrees, minutes and seconds of the latitude and GPSLatitudeRef contains either 'N' or 'S' for north or south latitude respectively.

```
$ exiv2 -l/tmp -S.CRW insert /data/*.JPG
```

Copy all metadata from CRW files in the /tmp directory to JPG files with corresponding basenames in the /data directory. Note that this copies metadata as is, without any modifications to adapt it to the requirements of the target format. Some tags copied like this may not make sense in the target image.

<https://exiv2.org/sample.html#modify>

Sample command files.

<https://exiv2.org/metadata.html>

Taglists with key and default type values.

AUTHORS

exiv2 was written by Andreas Huggel and others.

The Exiv2 project web site is <https://exiv2.org>.

The code is hosted on GitHub at <https://github.com/exiv2/exiv2>

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EXIV2(1)