

PhotoPrism® Digital Asset Management



PhotoPrism® is an AI-powered app for browsing, organizing & sharing your photo collection. It makes use of the latest technologies to tag and find pictures automatically without getting in your way. You can run it on your local computer, a private server, or in the cloud.

Feature Overview

Browse all your photos and videos without worrying about RAW conversion, duplicates or video formats

Easily find specific pictures using powerful search filters

Play Live Photos™ and short videos by hovering over them in albums and search results

Includes four high-resolution world maps with automatic image clustering based on the zoom level

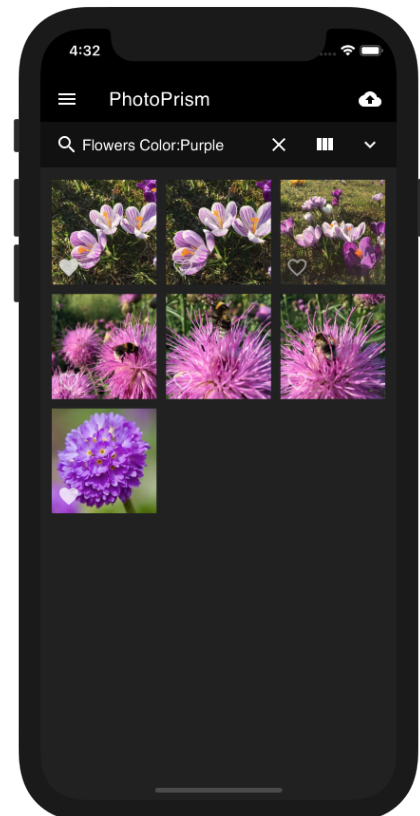
Metadata is extracted and merged from Exif, XMP, and other sources such as Google Photos

Automatic classification of pictures based on their content and location

Detection and recognition of faces using Google TensorFlow

WebDAV clients such as Microsoft's Windows Explorer and Apple's Finder can connect directly to PhotoPrism, allowing you to open, edit, and delete files from your computer as if they were local

Privacy-friendly: No data is ever sent to Google, Amazon, Facebook, or Apple unless you explicitly upload files to one of their services





Broad File Format Support

PhotoPrism supports indexing, viewing, and converting most common image, video, and RAW file formats, including JPEG, PNG, GIF, BMP, HEIF, HEIC, MP4, MOV, WebP, and WebM. TIFF is partially supported without extensions like GeoTIFF. The internally used image format is JPEG. JPEG XL support is planned as soon as it is generally available and enough compatible tools exist.

Converting RAW files is possible with Darktable and RawTherapee. On a Mac, RAW files can also be converted with Apple's Sips. Our goal is to provide first-class support for all RAW formats, regardless of camera make and model.

Video formats supported by FFmpeg can be transcoded to MPEG-4 AVC for maximum browser compatibility. Still images for thumbnail creation can be extracted from most videos as well.

Format	Description	Type	Extensions
BMP	Bitmap	Image	.bmp
GIF	Graphics Interchange Format	Image	.gif
HEIF	High Efficiency Image File Format	Image	.avci, .avcs, .avif, .avifs, .heic, .heics, .heif, .heifs
JPG	Joint Photographic Experts Group (JPEG)	Image	.jfi, .jfif, .jif, .jpe, .jpeg, .jpg, .thm
MPO	Stereoscopic JPEG (3D)	Image	.mpo
PNG	Portable Network Graphics	Image	.pn, .png
TIFF	Tag Image File Format	Image	.tif, .tiff
WEBP	Google WebP	Image	.webp
RAW	Unprocessed Sensor Data	Raw	.3fr, .ari, .arw, .bay, .cap, .cr2, .cr3, .crw, .data, .dcr, .dcs, .dng, .drf, .eip, .erf, .fff, .gpr, .iiq, .k25, .kdc, .mdc, .mef, .mos, .mrw, .nef, .nrw, .obm, .orf, .pef, .ptx, .pxn, .r3d, .raf, .raw, .rw2, .rwl, .rwz, .sr2, .srf, .srw, .x3f
AAE	Apple Image Edits XML	Sidecar	.aae
JSON	Serialized JSON Data (Exiftool, Google)	Sidecar	.json



	Photos)		
MD	Markdown Formatted Text	Sidecar	.markdown, .md
TXT	Plain Text	Sidecar	.txt
XML	Extensible Markup Language	Sidecar	.xml
XMP	Adobe Extensible Metadata Platform	Sidecar	.xmp
YML	Serialized YAML Data (Config, Metadata)	Sidecar	.yaml, .yml
3G2	Mobile Multimedia Container (CDMA2000)	Video	.3g2
3GP	Mobile Multimedia Container (3G)	Video	.3gp
ASF	Advanced Systems Format	Video	.asf
AV1	AOMedia Video 1	Video	.av1
AVC	Advanced Video Coding (H.264, MPEG-4 Part 10)	Video	.avc
AVI	Microsoft Audio Video Interleave	Video	.avi
FLV	Adobe Flash	Video	.f4v, .flv
HEVC	High Efficiency Video Coding (H.265)	Video	.hevc
MJPG	Motion JPEG	Video	.mjpeg, .mjpg
MKV	Matroska Multimedia Container	Video	.mkv
MOV	Apple QuickTime	Video	.mov, .qt
MP2	MPEG 2 (H.262)	Video	.mp2, .mpv
MP4	Multimedia Container (MPEG-4 Part 14)	Video	.m4v, .mp, .mp4
MPG	Moving Picture Experts Group (MPEG)	Video	.mpeg, .mpg
MTS	Advanced Video Coding High Definition (AVCHD)	Video	.mts
OGV	Ogg Media (OGG)	Video	.ogg, .ogv, .ogx
VVC	Versatile Video Coding (H.266)	Video	.vvc
WEBM	Google WebM	Video	.webm
WMV	Windows Media	Video	.wmv



Powerful Search Filters

Easily find specific photos and videos using powerful search filters. Your pictures are automatically classified based on their content and location. Many more image properties like colors, chroma, and quality can be searched as well.

Pictures marked as private, archived, or under review do not appear in regular search results.

Filter	Type	Examples	Notes
fmax	decimal	fmax:1.245	F-number (max)
fmin	decimal	fmin:1.245	F-number (min)
lat	decimal	lat:1.245	Latitude (GPS Position)
lng	decimal	lng:1.245	Longitude (GPS Position)
chroma	number	chroma:70	Chroma (0-100)
diff	number	diff:-1 diff:2	Differential Perceptual Hash (000000-FFFFFF)
dist	number	dist:5	Distance in km in combination with lat/lng
quality	number	quality:0 quality:3	Quality Score (0-7)
album	string	album:berlin	Album UID or Name, supports * wildcards
albums	string	albums:"South Africa & Birds"	Album Names, can be combined with & and
camera	string	camera:canon	Camera Make/Model Name
category	string	category:"name"	Location Category Name
color	string	color:"red blue"	Color Name (purple, magenta, pink, red, orange, gold, yellow, lime, green, teal, cyan, blue, brown, white, grey, black), OR search with
country	string	country:"de us"	Country Code, OR search with
day	string	day:3 13	Day of Month (1-31), OR search with
face	string	face:PN6QO5INYTUSAATOFL43LL2ABAV5ACZG	Face ID
faces	string	faces:yes faces:3	Minimum number of Faces (yes = 1)
filename	string	filename:"2021/07/12345.jpg"	File Name with path and extension, OR search with
folder	string	folder:"*/2020"	Path Name, OR search with , supports * wildcards
hash	string	hash:2fd4e1c67a2d	SHA1 File Hash, OR search with
keywords	string	keywords:"bird&water"	Keywords, can be combined with & and
label	string	label:cat dog	Label Name, OR search with
lens	string	lens:ef24	Lens Make/Model Name



month	string	month:7 10	Month (1-12), OR search with
name	string	name:"IMG_9831-112*"	File Name without path and extension, OR search with
original	string	original:"IMG_9831-112*"	Original file name of imported files, OR search with
path	string	path:2020/Holiday	Path Name, OR search with , supports * wildcards
people	string	people:"Jane & John"	Subject Names, can be combined with & and
person	string	person:"Jane Doe & John Doe"	Subject Names, exact matches, can be combined with & and
state	string	state:"Baden-Württemberg"	Name of State (Location), OR search with
subject	string	subject:"Jane Doe & John Doe"	Alias for person
subjects	string	subjects:"Jane & John"	Alias for people
title	string	title:"Lake*"	Title, OR search with
type	string	type:raw	Media Type (image, video, raw, live, animated); OR search with
uid	string	uid:pqbcf5j446s0futy	Internal Unique ID, only exact matches
year	string	year:1990 2003	Year Number, OR search with
animated	switch	animated:yes	Finds animated GIFs
archived	switch	archived:yes	Finds archived pictures
error	switch	error:yes	Finds pictures with errors
favorite	switch	favorite:yes	Finds pictures marked as favorite
geo	switch	geo:yes	Finds pictures with GPS location
hidden	switch	hidden:yes	Finds hidden pictures (broken or unsupported)
landscape	switch	landscape:yes	Finds pictures in landscape format
live	switch	live:yes	Finds Live Photos and short videos
mono	switch	mono:yes	Finds pictures with few or no colors
panorama	switch	panorama:yes	Finds pictures with an aspect ratio > 1.9:1
photo	switch	photo:yes	Finds only photos, no videos
portrait	switch	portrait:yes	Finds pictures in portrait format
primary	switch	primary:yes	Finds primary JPEG files only
private	switch	private:yes	Finds private pictures
public	switch	public:yes	Excludes private pictures
raw	switch	raw:yes	Finds pictures with RAW image file
review	switch	review:yes	Finds pictures in review
scan	switch	scan:yes	Finds scanned images and documents
square	switch	square:yes	Finds images with an aspect ratio of 1:1



stack	switch	stack:yes	Finds pictures with more than one media file
stackable	switch	stackable:yes	Finds pictures that can be stacked with additional media files
unsorted	switch	unsorted:yes	Finds pictures not in an album
unstacked	switch	unstacked:yes	Finds pictures with a file that has been removed from a stack
vector	switch	vector:yes	Finds vector graphics only
video	switch	video:yes	Finds video files only
after	timestamp	after:"2022-01-30 15:23:42"	Finds pictures taken after this date
before	timestamp	before:"2022-01-30 15:23:42"	Finds pictures taken before this date

Advanced Metadata Extraction

Original media and sidecar files are scanned for Exif and XMP data as well as proprietary metadata, including Google Photos JSON. The combined information is normalized and merged. Supported fields include Title, Description, Date, Location, Camera, Lens, ISO, F Number, Exposure, Focal Length, Subject, Artist, Keywords, and Copyright.

Field	Type	Exif / XMP Tags
Aperture	decimal	ApertureValue, Aperture
FNumber	decimal	FNumber
FPS	decimal	VideoFrameRate, VideoAvgFrameRate
Duration	duration	Duration, MediaDuration, TrackDuration
Flash	flag	FlashFired
Keywords	list	Keywords
Altitude	number	GlobalAltitude, GPSAltitude
FocalLength	number	FocalLength
Frames	number	FrameCount
Height	number	PixelYDimension, ImageHeight, ImageLength, ExifImageHeight, SourceImageHeight
ImageType	number	HDRImageType
Iso	number	ISO
Rotation	number	Rotation
Width	number	PixelXDimension, ImageWidth, ExifImageWidth, SourceImageWidth
Artist	text	Artist, Creator, OwnerName, Owner



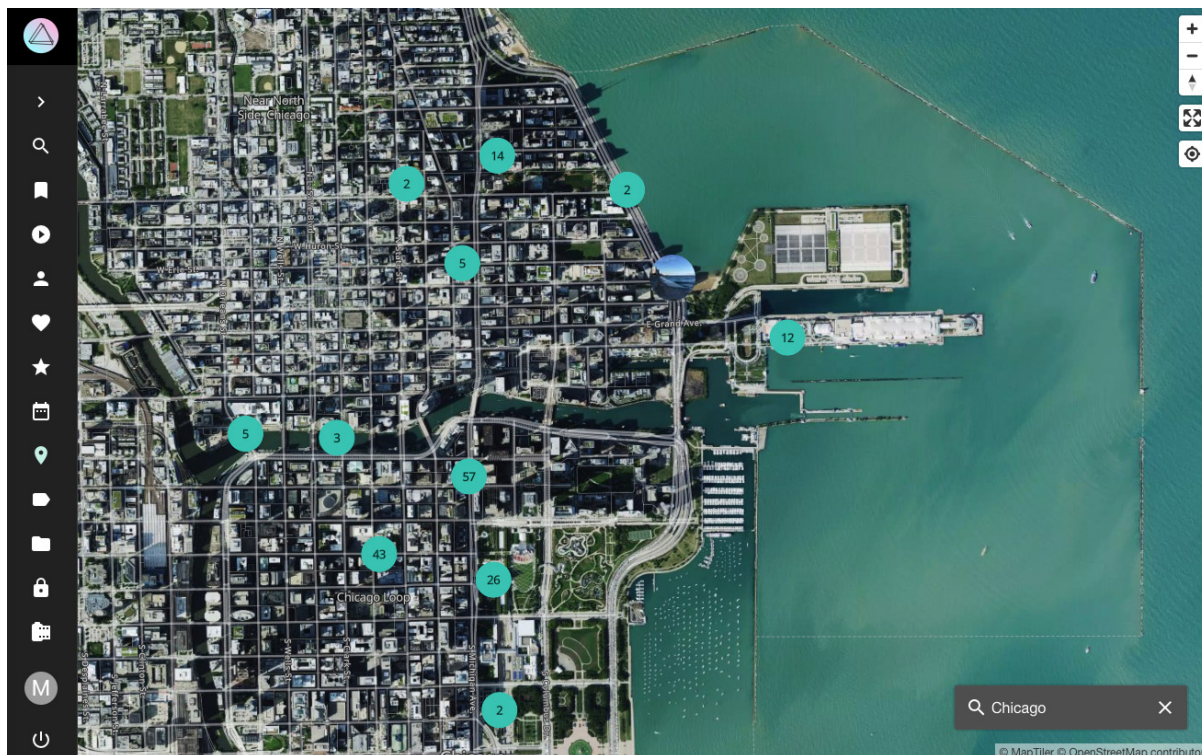
CameraMake	text	CameraMake, Make
CameraModel	text	CameraModel, Model
CameraOwner	text	OwnerName
CameraSerial	text	SerialNumber
Codec	text	CompressorID, FileType
ColorProfile	text	ICCProfileName, ProfileDescription
Copyright	text	Rights, Copyright, WebStatement
Description	text	Description
DocumentID	text	BurstUUID, MediaGroupUUID, ImageUniqueID, OriginalDocumentID, DocumentID
Exposure	text	ExposureTime, ShutterSpeedValue, ShutterSpeed, TargetExposureTime
FileName	text	FileName
GPSLatitude	text	GPSLatitude
GPSLongitude	text	GPSLongitude
GPSPosition	text	GPSPosition
InstanceID	text	InstanceID, DocumentID
LensMake	text	LensMake
LensModel	text	Lens, LensModel
License	text	UsageTerms, License
Notes	text	Comment
Projection	text	ProjectionType
Software	text	Software, HistorySoftwareAgent, ProcessingSoftware
Subject	text	Subject, PersonInImage, ObjectName, HierarchicalSubject, CatalogSets
Title	text	Title
TakenAt	timestamp	DateTimeOriginal, CreationDate, CreateDate, MediaCreateDate, ContentCreateDate, DateTimeDigitized, DateTime, SubSecDateTimeOriginal, SubSecCreateDate
TakenAtLocal	timestamp	DateTimeOriginal, CreationDate, CreateDate, MediaCreateDate, ContentCreateDate, DateTimeDigitized, DateTime, SubSecDateTimeOriginal, SubSecCreateDate
TakenGps	timestamp	GPSTimeStamp, GPSTimeStamp



Maps & Places

PhotoPrism includes four high-resolution world maps with automatic image clustering based on the zoom level. Our privacy-preserving backend services provide worldwide location information to enrich your pictures with details such as state, city, and category.

Future releases will be able to use public event data to automatically create albums of popular music festivals or sporting events.





System Requirements

We recommend hosting PhotoPrism on a server with at least 2 cores, 3 GB of physical memory, and a 64-bit operating system. Beyond these minimum requirements, the amount of RAM should match the number of CPU cores.

High-resolution panoramic images may require additional swap space and/or physical memory above the recommended minimum.

Browsers

Our Progressive Web App (PWA) works with most modern browsers, and runs best on Chrome, Chromium, Safari, Firefox, and Edge. You can conveniently install it on the home screen of all major operating systems and mobile devices.

Note that not all video and audio formats can be played with every browser. For example, AAC - the default audio codec for MPEG-4 AVC / H.264 - is supported natively in Chrome, Safari, and Edge, while it is only optionally supported by the OS in Firefox and Opera.

Databases

PhotoPrism is compatible with SQLite 3 and MariaDB 10.5.12+. Official support for MySQL 8 has been discontinued due to a lack of new features and low demand from our users. Support for PostgreSQL is planned for a future release.

Storage

Indexing large photo and video collections significantly benefits from local SSD storage. Especially the conversion of RAW images and the transcoding of videos are very demanding. The use of SSDs as database storage is also highly recommended.

Deployment

We recommend using Docker for running PhotoPrism as it provides a common standard across most operating systems and devices, enabling teams to have the exact same environment everywhere in development, staging, and production. Our stable release and development preview have been built into a single multi-arch image for 64-bit AMD, Intel, and ARM processors, including Raspberry Pi 3 / 4, Apple Silicon, and other ARM64-based devices.

Step-by-step installation instructions can be found on docs.photoprism.app. You are welcome to contact us for other deployment options if needed.