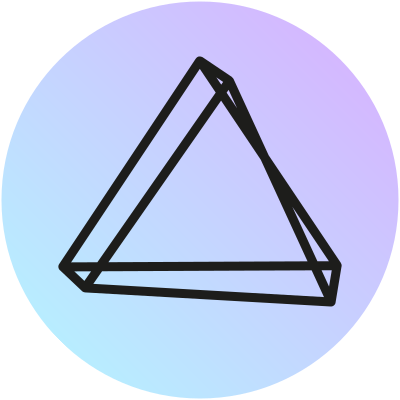
PhotoPrism® Digital Asset Management

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

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## 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 Photos) | Sidecar | .json |
| 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 |

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## 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 |

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## 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 | GPSDateTime, GPSDateStamp |

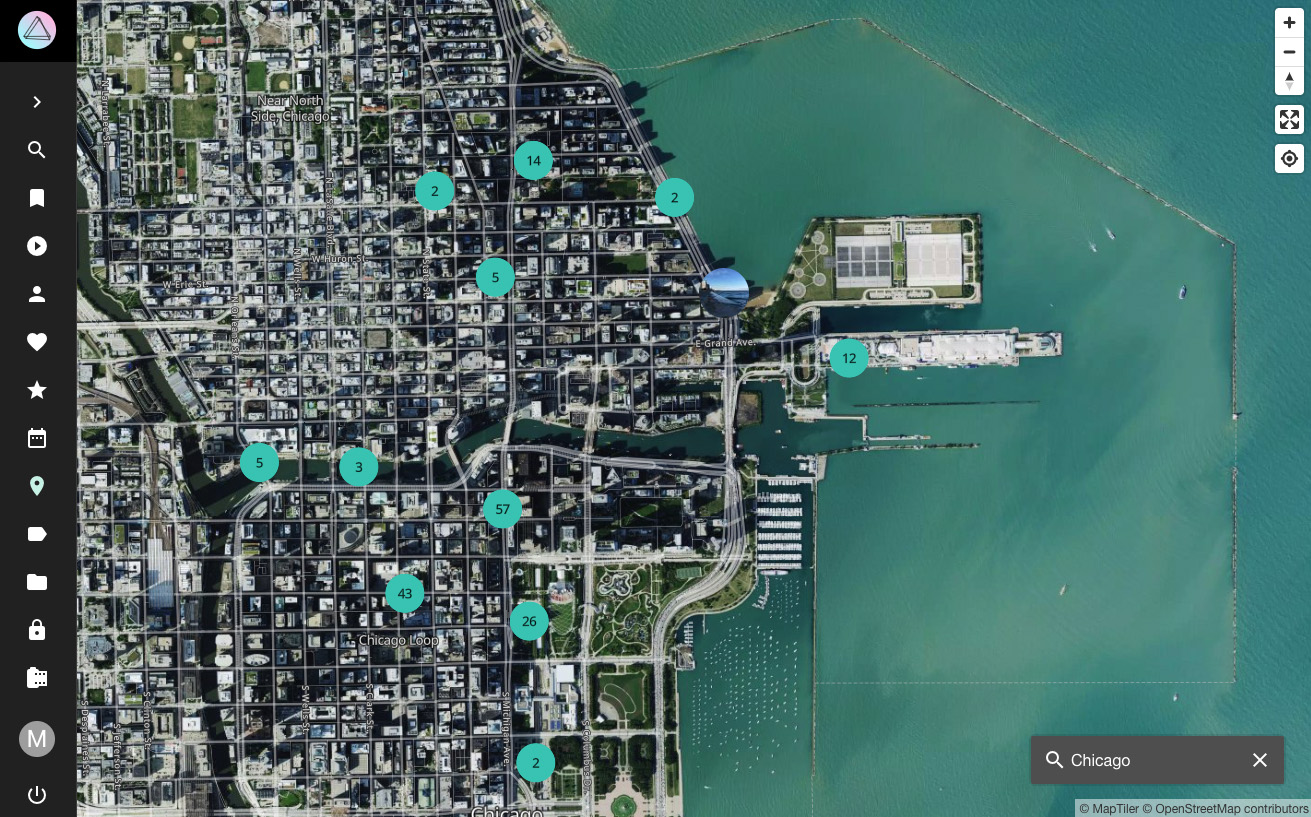
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## Maps & Places

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.



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## 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](https://docs.photoprism.app/getting-started/). You are welcome to contact us for other deployment options if needed.