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Image organizer

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An **image organizer** or **image management application** is application software focused on organizing digital images.[1][2] Image organizers represent one kind of desktop organizer software applications.

Contents

Common image organizers features   [edit]

- Multiple thumbnail previews are viewable on a single screen and printable on a single page. (Contact Sheet)
- Images can be organized into albums
- Albums can be organized into collections
- Adding tags (also known as keywords, categories, labels or flags). Tags can be stored externally, or in industry-standard IPTC or XMP headers inside each image file.[3]
- Resizing, exporting, e-mailing and printing.

Not so common, or differentiating features   [edit]

- Pictures can be organized by one or more mechanism
  - Images can be organized into folders, which may correspond to file-system folders.
  - Images may be organized into albums, which may be distinct from folders or file-system folders.
  - Albums may be organized into collections, which may not be the same as a folder hierarchy.
  - Grouping or sorting by date, location, and special photographic metadata such as exposure or f-stops if that information is available. See Exif for example.
  - Images can appear in more than one album
  - Albums can appear in more than one collection
  - Grouped or stacking of images within an album, by date, time, and linking copies to originals.
  - Adding and editing titles and captions
- Simple or sophisticated search engines to find photos
  - Searching by keywords, caption text, metadata, dates, location or title
  - Searching with logical operators and fields, such as "(Title contains birthday) and (keywords

- Separate backing up and exporting of metadata associated with photos.
- Retouching of images (either destructively or non-destructively)
- Editing images in third-party graphical software and then re-incorporating them into the album automatically
- Stitching to knit together panoramic or tiled photos
- Grouping of images to form a slideshow view
- Exporting of slideshows as HTML or flash presentations for web deployment
- Synchronizing of albums with web-based counterparts, either third-party (such as Lightroom and Flickr), or application specific (such as Picasa and Picasa Web)
- Retention of Exif, IPTC and XMP metadata already embedded in the image file itself

Two categories of image organizers [edit]

- Automatic image organizers. These are software packages that read data present in digital pictures and use this data to automatically create an organization structure. Each digital picture contains information about the date when the picture was taken. It is this piece of information that serves as the basis for automatic picture organization. The user usually has little or no control over the automatically created organization structure. Some tools create this structure on the hard drive (physical structure), while other tools create a virtual structure (it exists only within the tool).
- Manual image organizers. This kind of software provides a direct view of the folders present on a user's hard disk. Sometimes referred to as image viewers, they only allow the user to see the pictures but do not provide any automatic organization features. They give maximum flexibility to a user and show exactly what the user has created on his hard drive. While they provide maximum flexibility, manual organizers rely on the user to have his/her own method to organize their pictures. Currently there are two main methods for organizing pictures manually: tag and folder based methods. While not mutually exclusive, these methods are different in their methodology, outcome and purpose.

Presently, many commercial image organizers offer both automatic and manual image organization features. A comparison of image viewers reveals that many free software packages are available that offer most of the organization features available in commercial software.

Future of image organization [edit]

There are several imminent advances anticipated in the image organization domain which may soon allow widespread automatic assignment of keywords or image clustering based on image content [4]:

- colour, shape and texture recognition [5] (For example, Picasa experimentally allows searching for photos with primary colour names)
- subject recognition [6]
- fully- or semi-automated facial, torso or body recognition [7][8] (For example, FXPAL in Palo Alto experimentally extracts faces from images and measures the distance between each face and a template.)
- geo-temporal sorting and event clustering [9]. Many software will sort by time or place; experimental software has been used to predict special events such as birthdays based on geo-temporal clustering.

In general, these methods either:

- automatically assign keywords based on content, or
- measure the distance between an unclassified image and some template image which is associated with a keyword, and then propose that the operator apply the same keyword(s) to the unclassified images

Notable image organizers [edit]

Name	OS	License	Metadata	Geotagging	Facial Recognition	Synchronizes with Online Library	Notability
ACDSee	Windows	Commercial	Yes IPTC Exif XMP	Yes	No	Yes ≤ 25GB to ACDSee online, flickr™, SmugMug , and Zenfolio	Supports: >100 file formats, Unicode, batch processing, viewing contents of archives formats, non-destructive editing, DB export, R/W to CD, VCD, DVD. Contains: SMTP email client, FTP transport, duplicate file finder.
Adobe Photoshop Album	Windows and Mac OS X		Yes		No	No	This product has been discontinued.
CodedColor PhotoStudio Pro	Windows	commercial	Yes IPTC	No	No		
digiKam	KDE (Linux, Mac OS X, Windows)	Free, GNU General Public License	Yes IPTC Exif XMP	Yes		Yes	Image management application database, deals with collections of 100,000's of photos
Extensis Portfolio	Windows and Mac OS X	commercial					Commercial Digital Asset Management solution.
FastStone Image Viewer	Windows	Proprietary, Free for non-commercial use only	No				
F-Spot	GNOME	Free, GNU General Public License	Yes				
gThumb	GNOME	Free, GNU General Public License	Yes				
IDimager	Windows	commercial	Yes IPTC Exif XMP	Yes	No	Yes Facebook , Flickr, PicasaWeb , SmugMug , Zenfolio	Personal and professional DAM tool. Organize and describe your images, easy search, non-destructive editing, publish, facial tagging, speech recognition,...

Name	OS	License	Tagging	Geotagging	Facial Recognition	Synchronizes with Online Library	Notability
iPhoto	Mac OS X	commercial	Yes	Yes	Yes	Yes	
iTag	Windows	Commercial	Yes IPTC, XMP	Yes			
JBrout	Cross platform	Free, GNU General Public License	Yes IPTC				
KPhotoAlbum	KDE	Free, GNU General Public License v2					
Lightroom (Adobe Photoshop)	Windows	Commercial	Yes IPTC Exif XMP		No	Yes PicasaWeb and Flickr with plugins	professional image management application database, asychronously catalog DVD collections of 10,000's of photos
PicaJet	Windows	commercial	Yes Exif, IPTC XMP				
Picasa / PicasaWeb	Windows , OSX and Linux	Freeware	Yes IPTC	Yes	Yes	Yes with PicasaWeb only	1GB free online storage, integrated with Google online tool suite
ResourceSpace	Cross platform	Free, BSD license	Yes IPTC XMP Exif				Open source Digital Asset Management solution.
Shutterfly Studio	Windows	Freeware	Yes				
ThumbsPlus	Windows	Commercial					
ViewMinder	Windows XP and 2000						
Windows Live Photo Gallery	Windows Vista and XP	Freeware	Yes IPTC Exif XMP				
XnView	Windows and Unix-like	Limited freeware	Yes IPTC Exif				
Zoner Photo Studio	Windows	commercial	Yes Exif IPTC XMP	Yes	No	Using HTML templates	
Name	OS	License	Tagging	Geotagging	Facial Recognition	Synchronizes with Online Library	Notability

See also

Image viewers

- Digital asset management
- Comparison of image viewers
- Desktop organizer
- personal wiki

References [edit]

1. ^ Cynthia Baron and Daniel Peck, *The Little Digital Camera Book*, July 1, 2002 pp:93
2. ^ Julie Adair King, *Shoot Like a Pro! Digital Photography* July 28, 2003 pp:21-23
3. ^ "Who's got the tag? Database truth versus file truth" 🖫 by Jon Udell 2007
4. ^ http://www.oreillynet.com/digitalmedia/blog/2007/03/lightroom_and_the_future_of_or.html🖫 Lightroom and the future of organizing photos
5. ^ http://www.ctr.columbia.edu/~jrsmith/html/pubs/PAMI/pami_final_1.html🖫 Automated Image Retrieval Using Color and Texture (1995)
6. ^ http://portal.acm.org/citation.cfm?id=1232330.1232374&coll=GUIDE&dl=GUIDE🖫 Content-based object organization for efficient image retrieval in image databases (2006)
7. ^ http://hcil.cs.umd.edu/trs/2004-15/2004-15.pdf🖫 Semi-Automatic Image Annotation Using Event and Torso Identification
8. ^ http://www.ercim.org/publication/Ercim_News/enw62/wilcox.html🖫 Managing Digital Photo Collections
9. ^ http://portal.acm.org/citation.cfm?id=957093🖫 Temporal event clustering for digital photo collections

Additional reading [edit]

- *Multimedia Information Retrieval and Management: Technological Fundamentals and Applications* by David Feng, W.C. Siu, Hong J. Zhang
- *Multimedia Networking: Technology, Management, and Applications* by Syed Mahbubur Rahman
- *Multimedia and Image Management* by Susan Lake, Karen Bean

External links [edit]

Categories: Graphics software | Image organizers