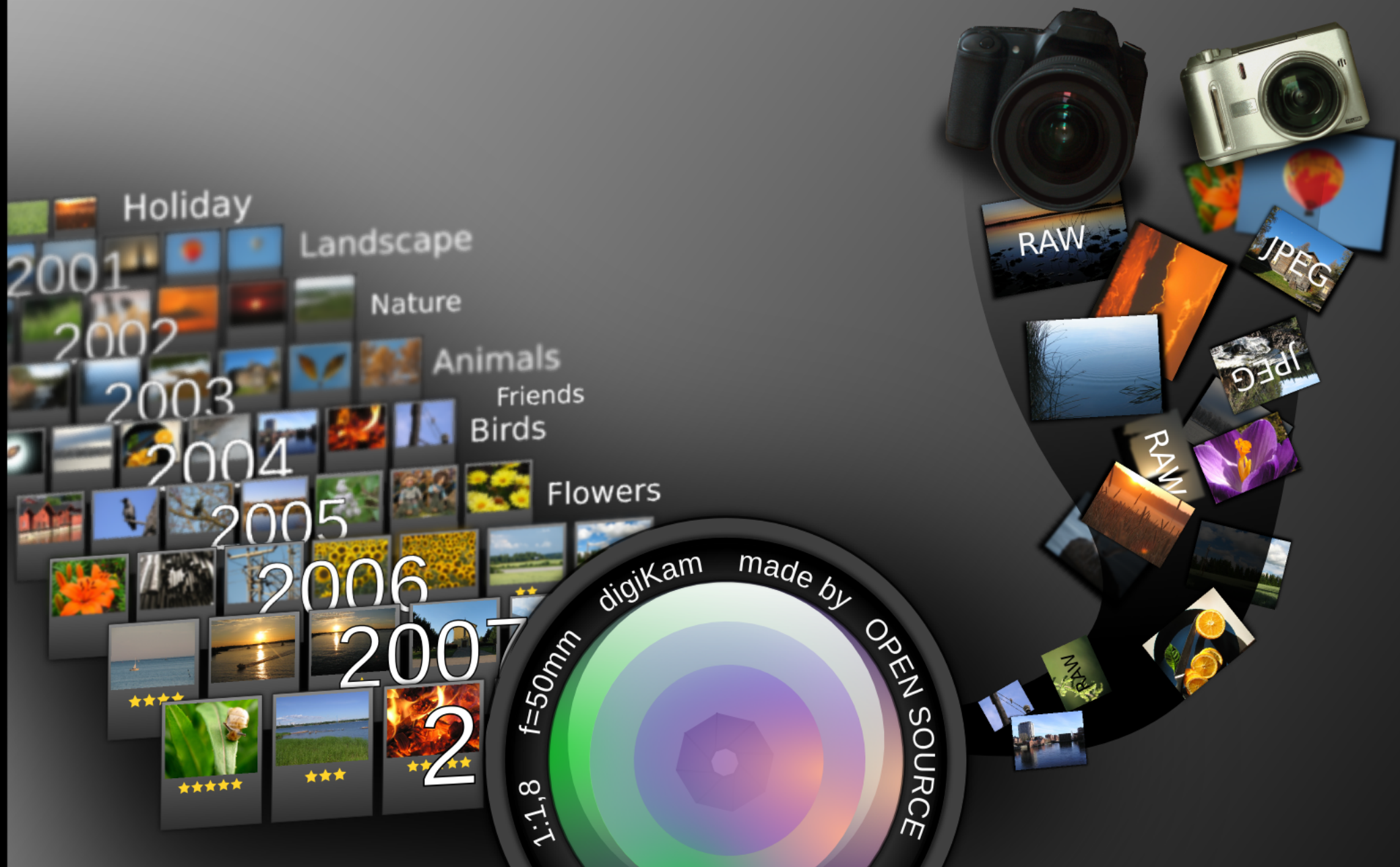


# digiKam

*Manage your photographs like a professional,  
with the power of Open Source*



## Summary :

- \* Digital photography
- \* Project overview
- \* digiKam 0.9.4:
  - Main interface
  - Camera interface
  - Image Editor
  - Plugin interfaces
  - Light Table
  - Search Tools
- \* digiKam 0.10.0:
  - What's new ?
  - Geolocation
  - New search tools
  - Raw import
- \* Conclusion

## The world of digital photography:

In last few years:

- \* Digital photography revolution
- \* Photograph workflow is speeding up
- \* Photographic items increase in number and size
- \* Photographers need a computer and software

Computerized photographer:

- \* Huge image collections
- \* Talking to the camera
- \* Digital image editing
- \* Image cataloging and publishing

A solution : **digiKam**

## Project overview:

### About the program:

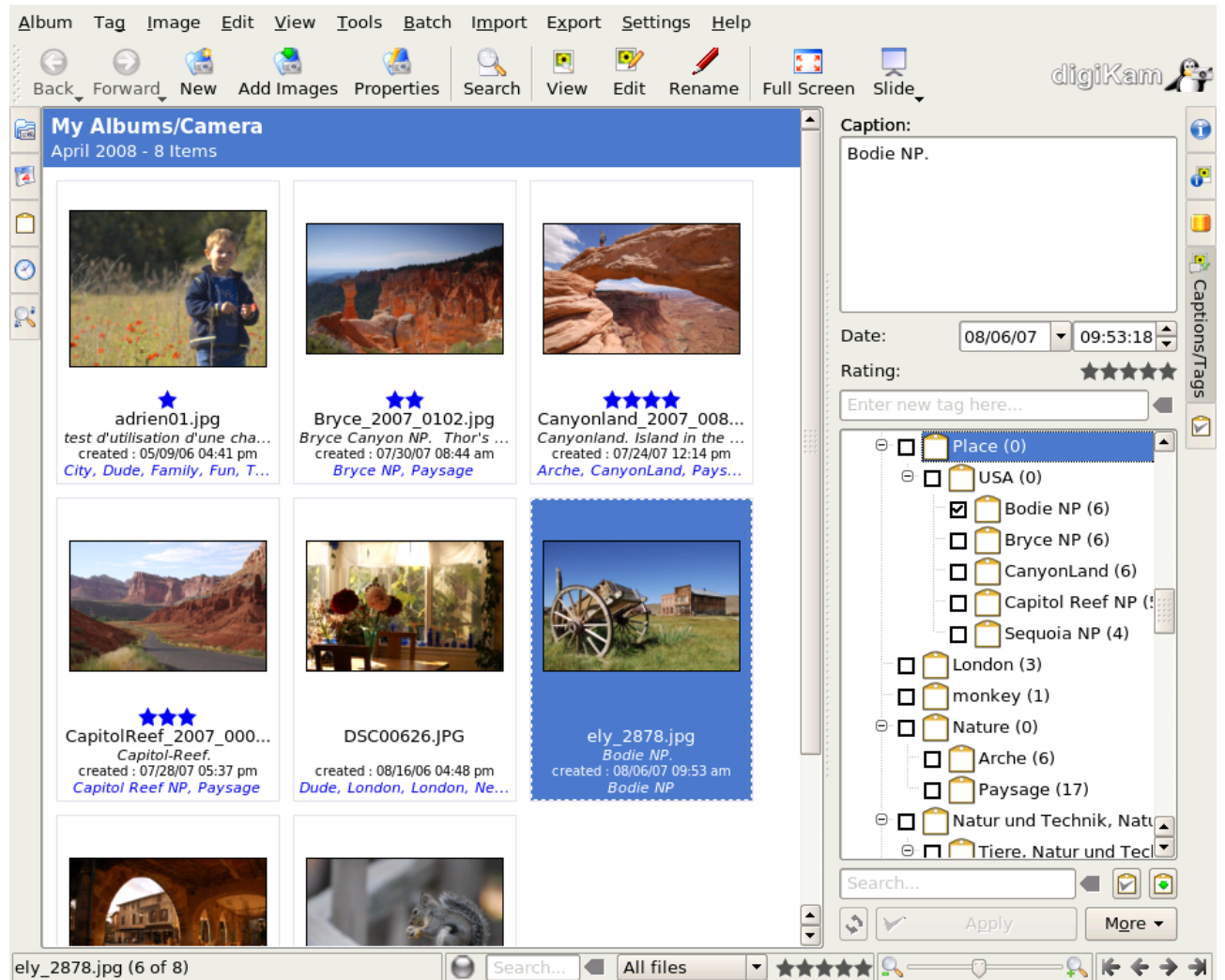
- \* Started in 2002
- \* International team
- \* Open Source
- \* C++ (Qt / KDE)
- \* IRC / mailing-lists / bugzilla
- \* Web page / wiki
- \* Linux

### Goals:

- \* User friendly interface
- \* Photograph workflow:
  - Camera interface
  - Album management
  - Search tools
  - Export tools
- \* Extendable
- \* Handbook (as a book)

## digiKam 0.9.4

- Designed for KDE3
- Photographers' tools:
  - \* Albums view
  - \* Image Editor
  - \* Camera Interface
  - \* Light Table
  - \* Search Tools



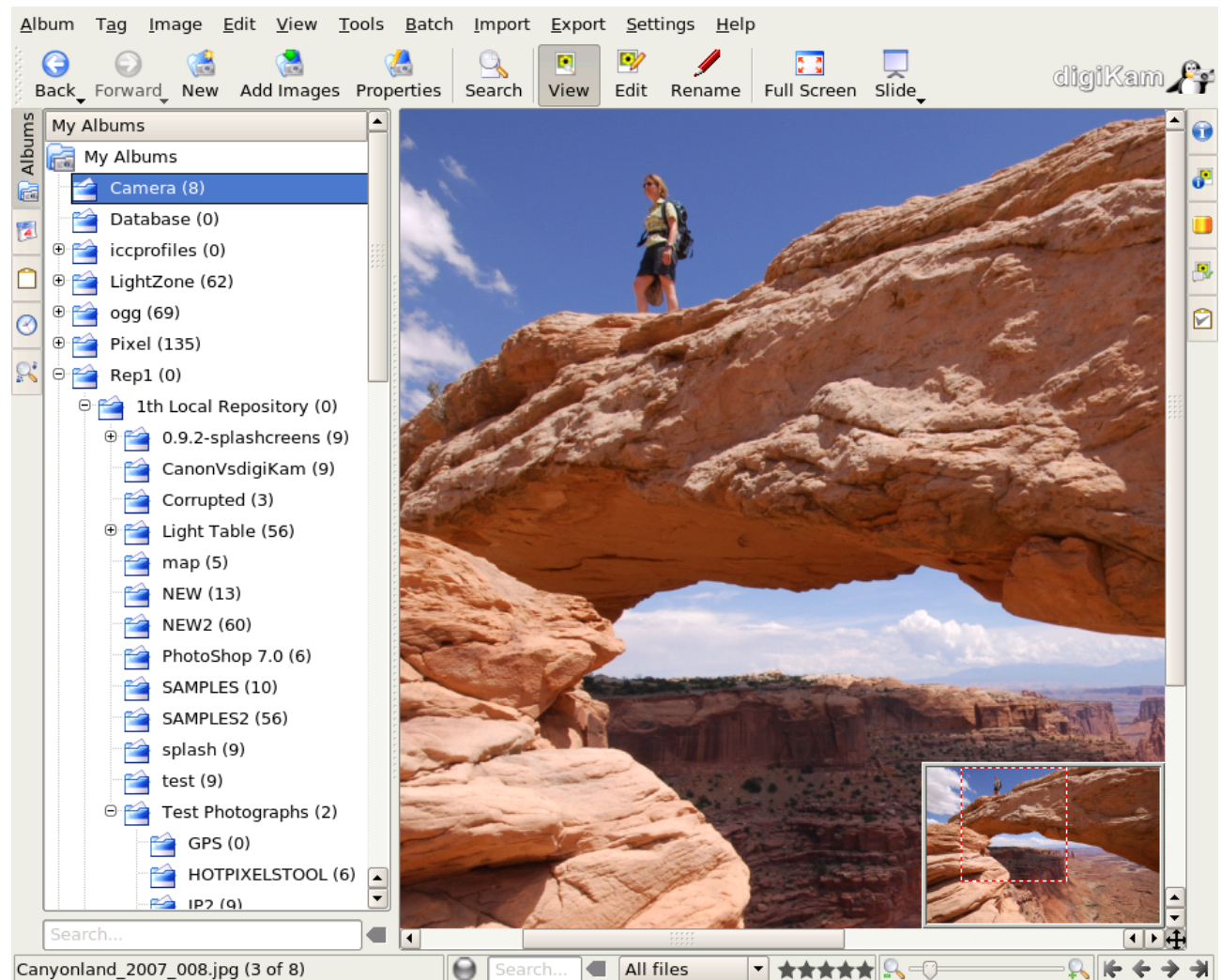
## Main Interface:

### Collections management:

- \* Albums Tree-view
- \* Icon-view
- \* Sidebars
- \* Fast preview
- \* Searching tools
- \* Sorting, filtering
- \* Comments, date
- \* Tags, rating
- \* Plugin interface

### Features per photograph:

- \* Histogram
- \* Metadata
- \* Color profile
- \* Geolocation



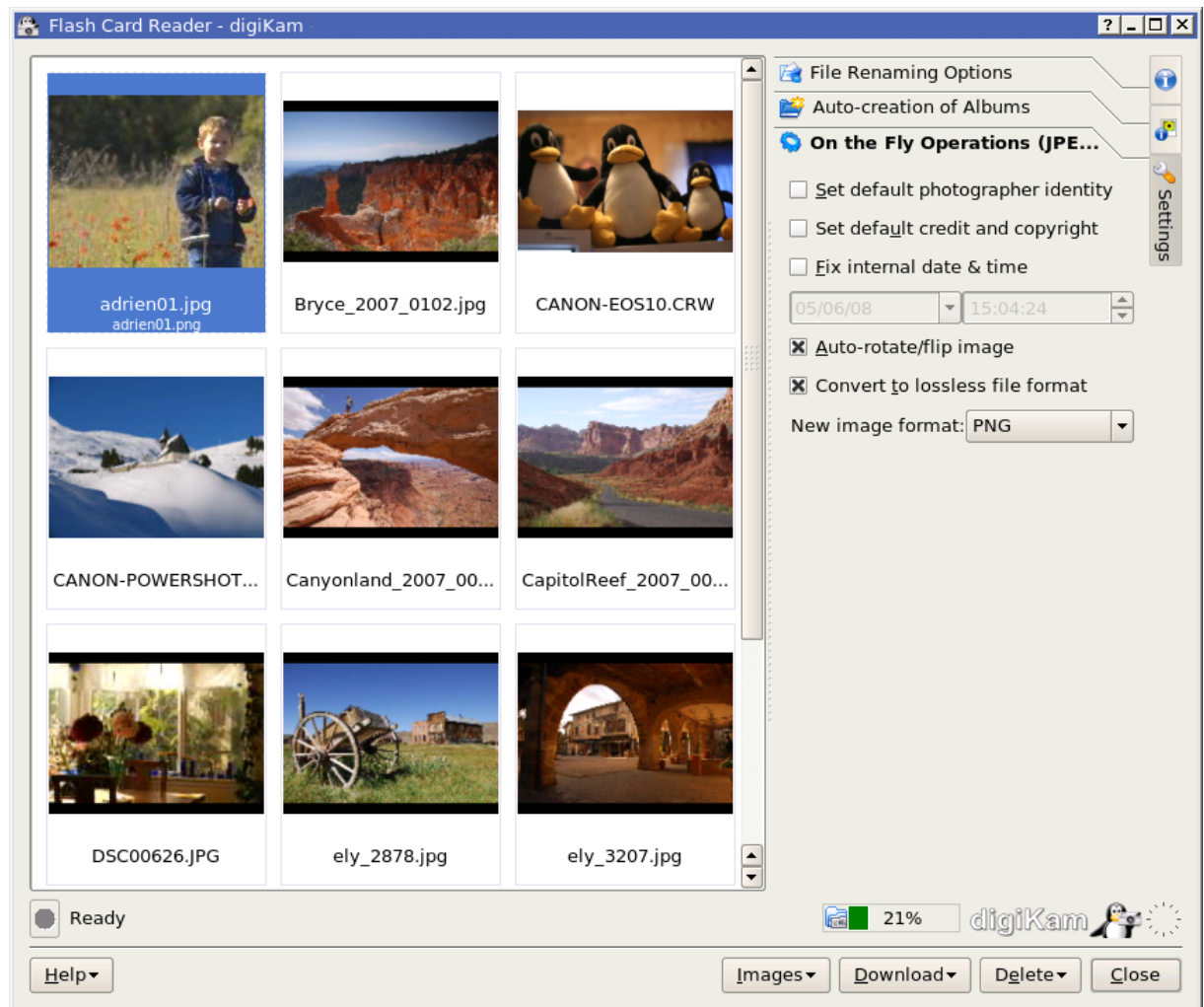
## Camera Interface:

### Features:

- \* Gphoto2 front-end
- \* More than 900 cameras
- \* USB/IEEE protocols
- \* PTP
- \* Proprietary protocols
- \* Background downloading

### Tools:

- \* Auto-fix (rotation/date)
- \* Auto-album creation
- \* Files renaming
- \* Exif-data owner marking
- \* Lossless conversion



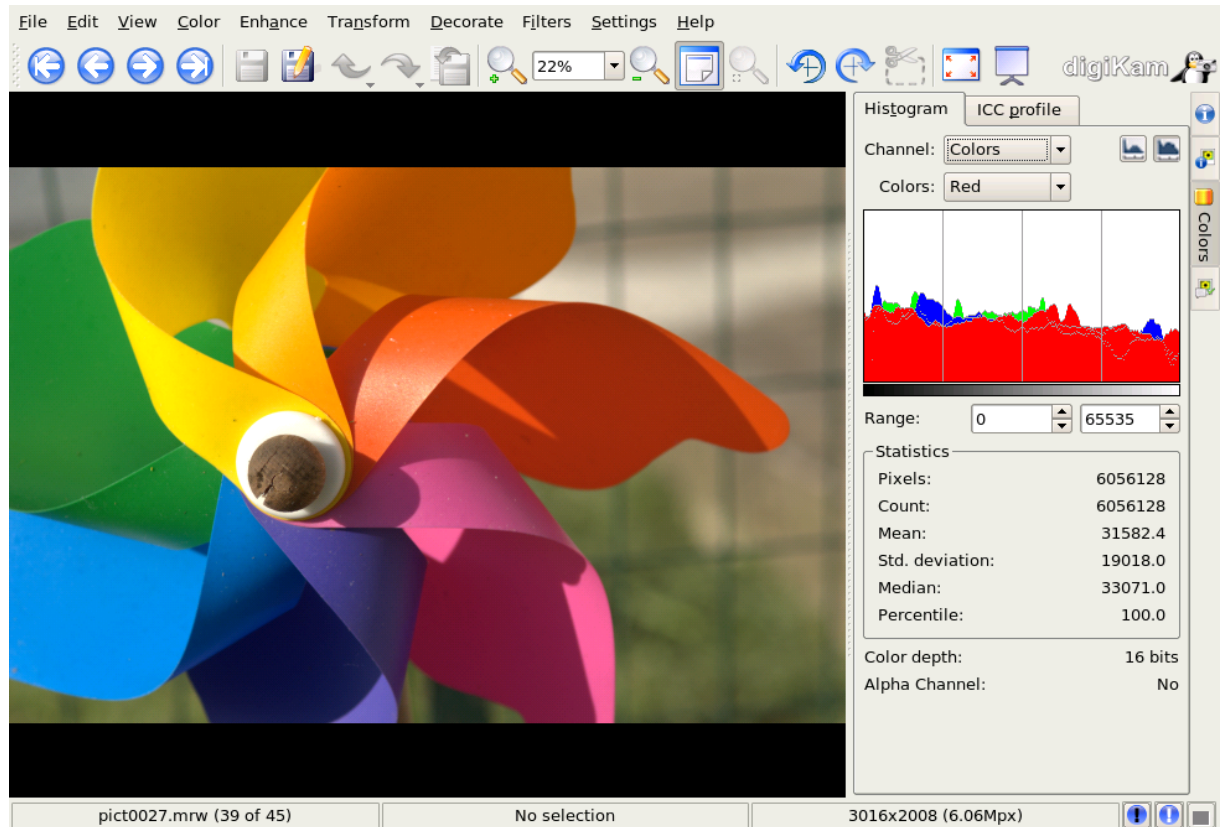
## Image Editor:

### Features:

- \* Easy to use
- \* 16 bits color depth
- \* Raw support
- \* Color management
- \* Metadata preservation
- \* Plugin interface
- \* Stand-alone version

### Tools:

- \* Refocus
- \* Noise reduction
- \* Red eyes
- \* Exposure/White balance
- \* Transform/Composition
- \* Decorations/Effects





## Plugin Interface:

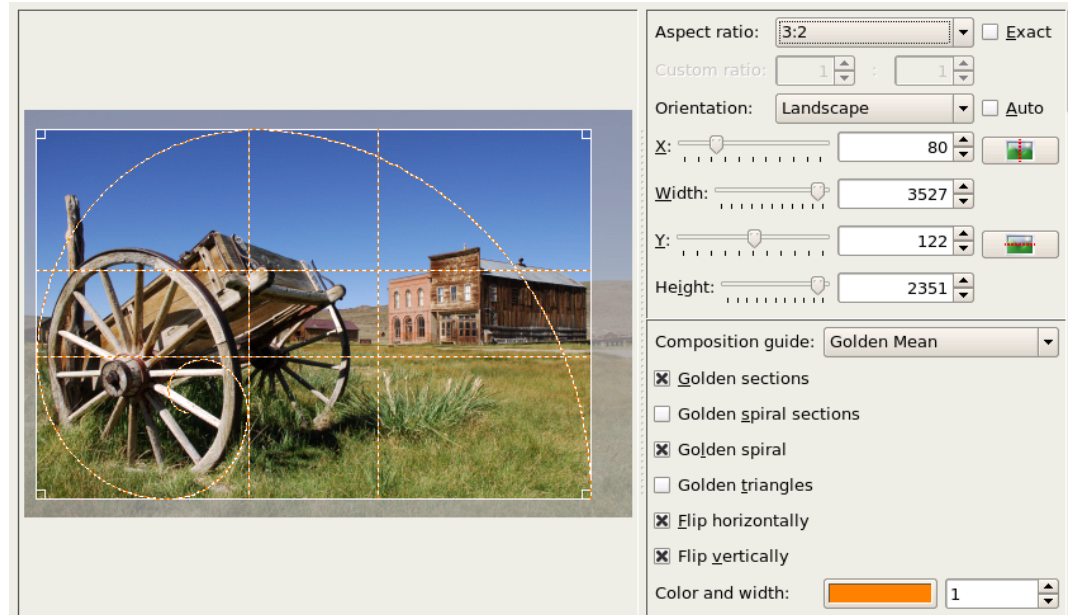
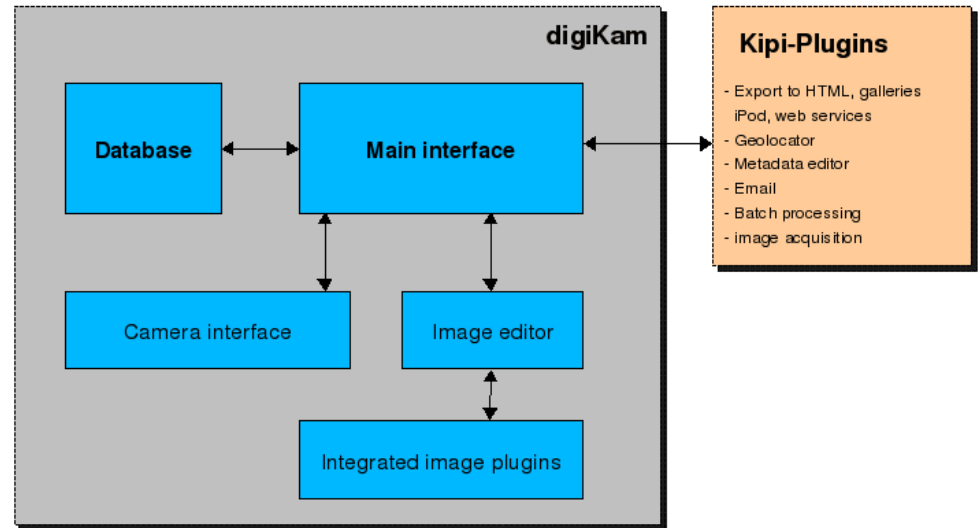
- \* Extended features
- \* 2 architectures

## Main Interface:

- \* Export (email, html, galleries)
- \* Batch process
- \* Slide show (3D, DVD, flash)

## Image Editor:

- \* Ratio Crop
- \* Composition guides
- \* Effects (Infrared, film grain, ...)
- \* Corrections:
  - Restoration
  - Lens
  - Colors

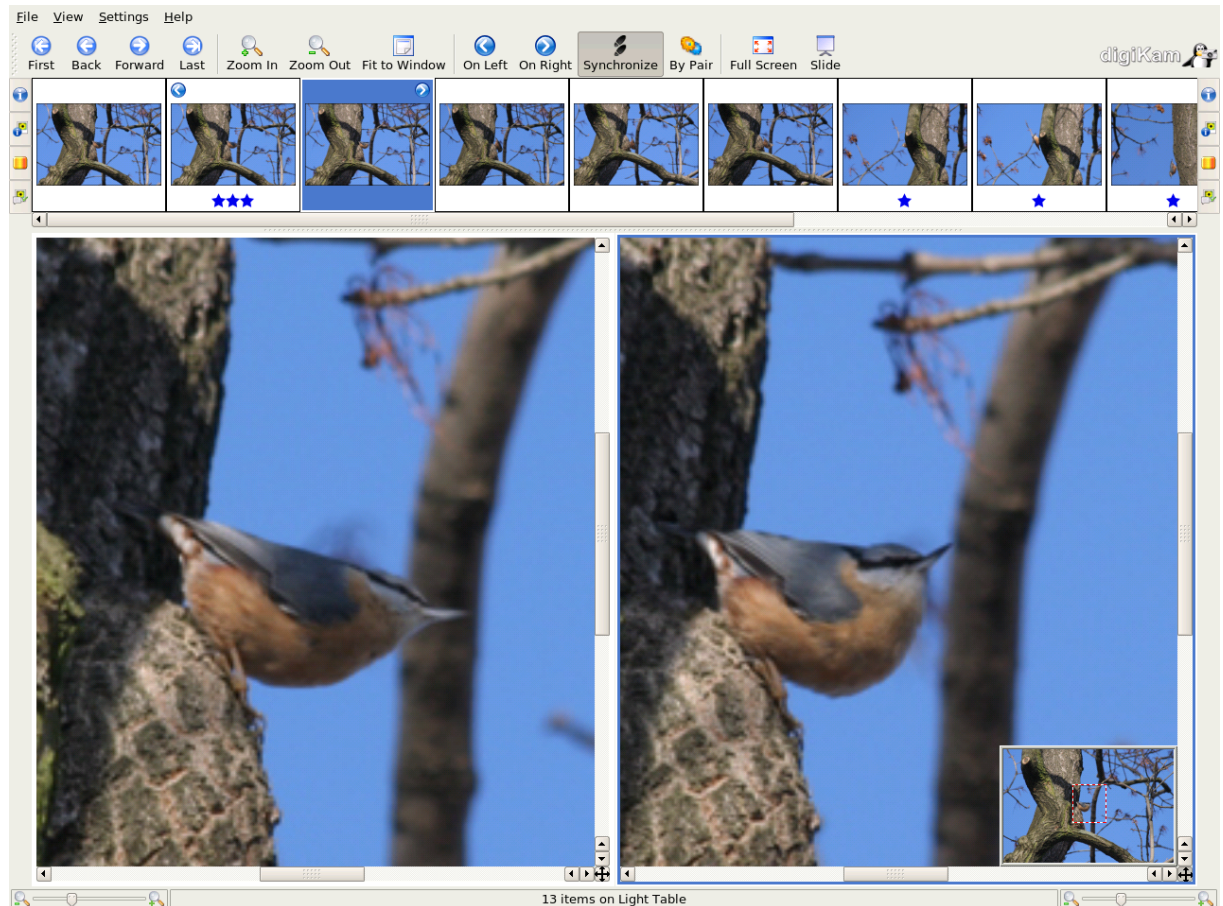


## Light Table:

- \* Virtual container
- \* Thumb-bar
- \* Compare
- \* Side by side
- \* 2 canvases
- \* Sync
- \* Zoom / scroll
- \* Fast loading

To process:

- \* Sorting
- \* Selection
- \* Deletion
- \* Rating



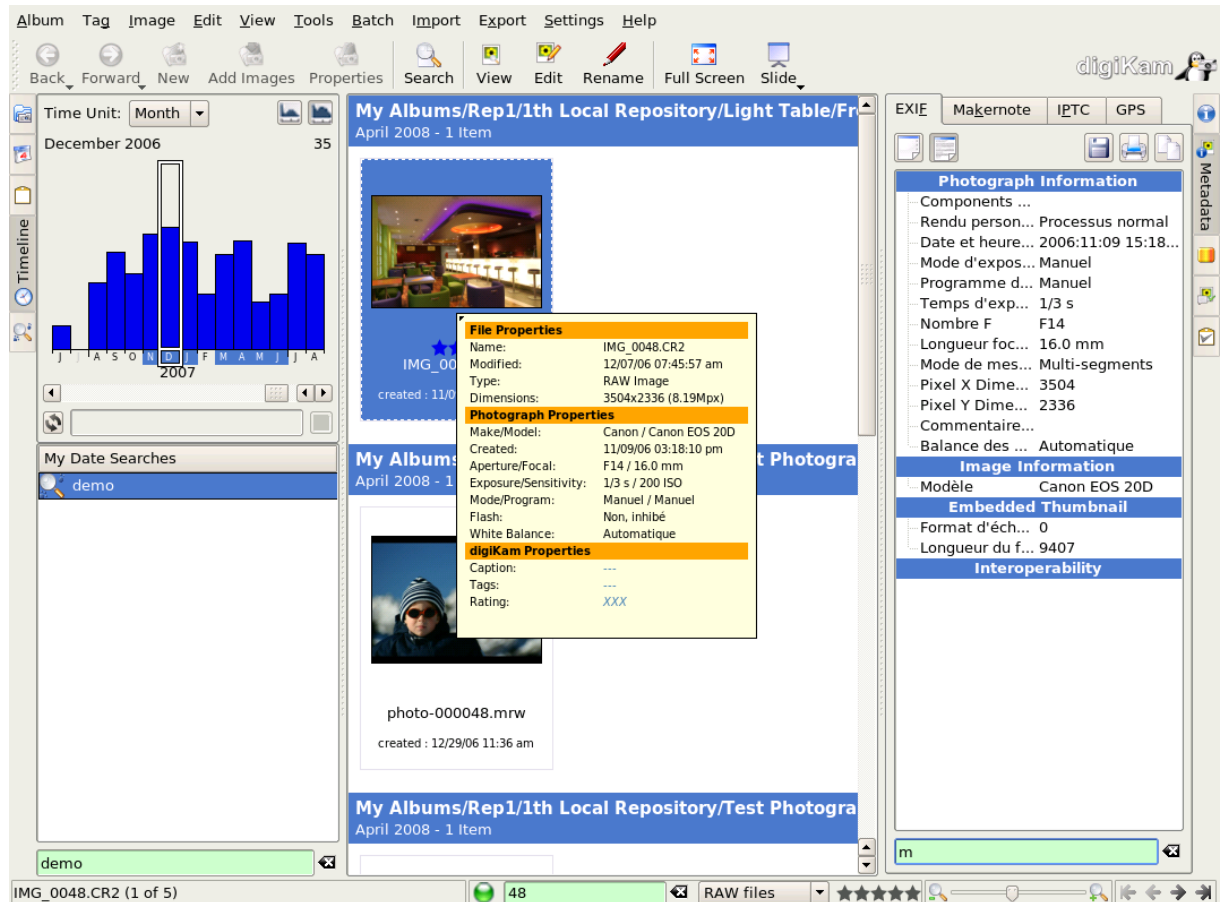
## Search Tools:

### Database:

- \* Find photos
- \* By Date (Calendar)
- \* By time range (Time Line)
- \* With simple strings
- \* Advanced:
  - Albums
  - Comments
  - Tags
  - Rating
  - Date
  - Multiple queries

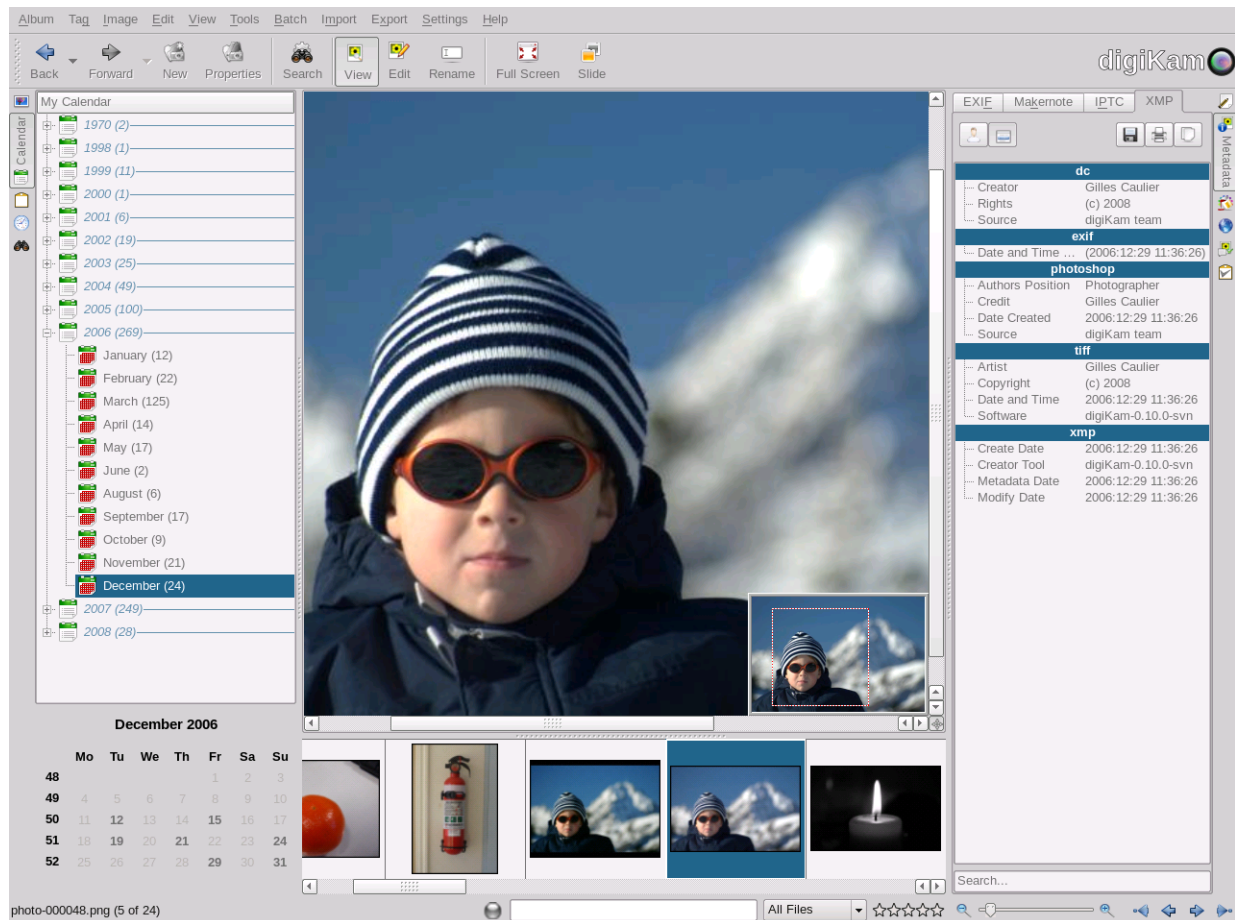
### GUI contents:

- \* Sorting items
- \* Album names
- \* Metadata
- \* Tag names



## digiKam 0.10.0

- Designed for KDE4
- New features:
  - \* **Marble** integration
  - \* **Solid** integration
  - \* **Phonon** integration
  - \* Multiple repositories
  - \* Remote storage
  - \* Network transparency
  - \* New Database schema
  - \* New Search tools
  - \* Thumbbar everywhere
  - \* Auto Lens correction
  - \* Camera Capture tool
  - \* XMP support
  - \* Portability (Mac / Win)

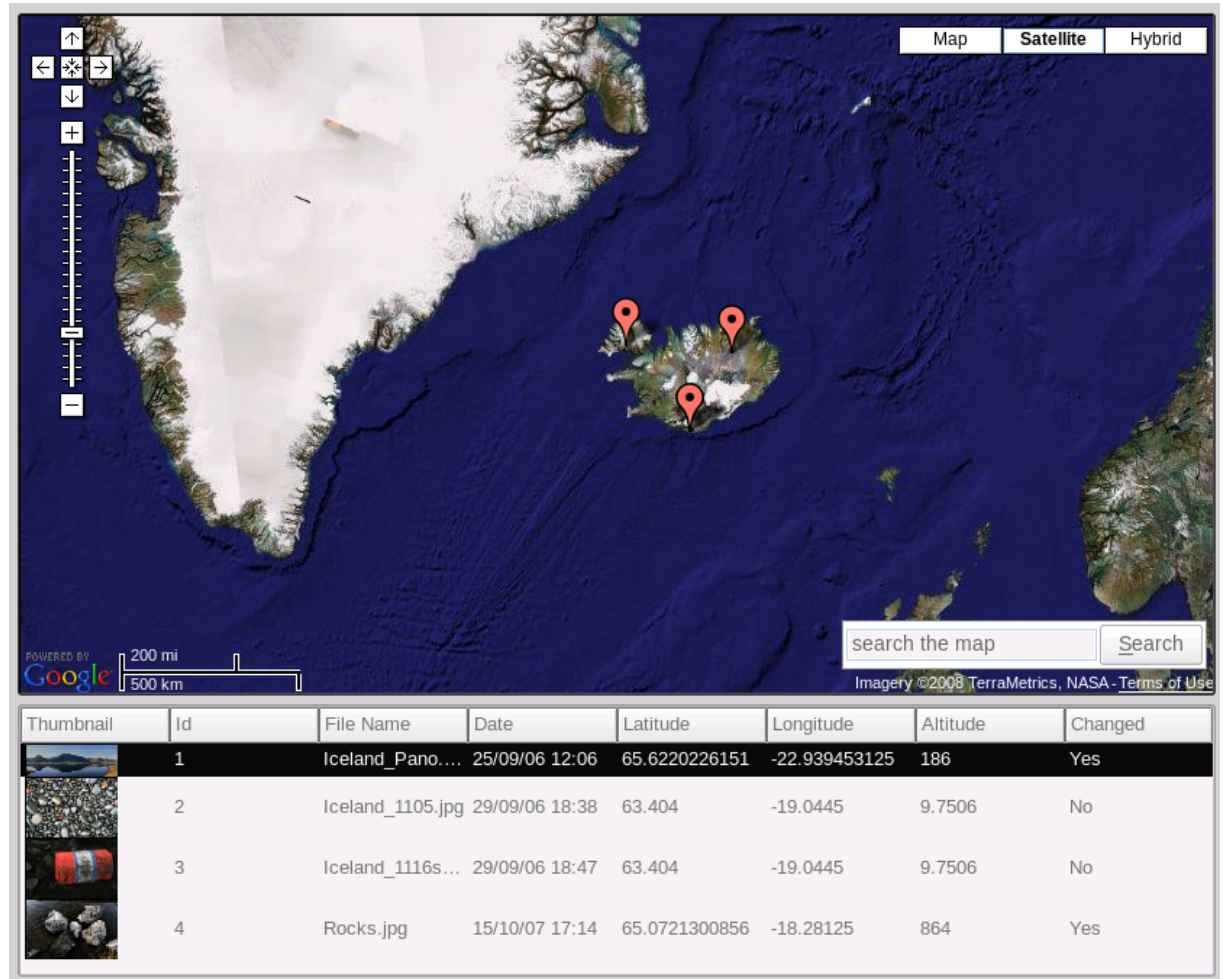






## Geolocation

- GPS  $\Leftrightarrow$  camera
- New DB  $\Rightarrow$  GPS info
- All file formats
- Plugin GPSSync
- **GoogleMap**: editing
- **Marble**: visualization
- Export to KML

- To finalize:


- \* Search tool using map
- \* Tracklist viewer



Thumbnail	Id	File Name	Date	Latitude	Longitude	Altitude	Changed
	1	Iceland_Pano...	25/09/06 12:06	65.6220226151	-22.939453125	186	Yes
	2	Iceland_1105.jpg	29/09/06 18:38	63.404	-19.0445	9.7506	No
	3	Iceland_1116s...	29/09/06 18:47	63.404	-19.0445	9.7506	No
	4	Rocks.jpg	15/10/07 17:14	65.0721300856	-18.28125	864	Yes

## New Search Tools

- Back-end fully rewritten
- New DB => more metadata
- Photo properties
- “Fuzzy” search (Haar)
  - \* Find duplicates
  - \* Find using sketch painted
  
- TODO:
  - \* DB over network
  - \* **Nepomuk** support


**Find Pictures**

- Match All of the following conditions
- Match Any of the following conditions

Find pictures that have associated all these words:

---

[File, Album, Tags](#)

---

[Picture Properties](#)

---

[Caption, Comment, Title](#)

---

[Photograph Information](#)

<b>Camera</b>	The make of the camera	<input type="text" value="Minolta"/>
	The model of the camera	<input type="text" value="Dynax 5D"/>
<b>Aperture</b>	Lens aperture as f-number	<input type="text" value="f/0,7"/> - <input type="text" value="f/2,5"/>
<b>Focal length</b>	Focal length of the lens	<input type="text" value="20mm"/> - <input type="text" value="200mm"/>
	35mm equivalent focal length	<input type="text"/> - <input type="text"/>
<b>Exposure</b>	Exposure time	<input type="text" value="1/100s"/> - <input type="text" value="1/500s"/>
	Automatic exposure program	<a href="#">Any</a>
	Automatic or manual exposure	<a href="#">Any</a>
<b>Sensitivity</b>	ISO film speed (linear scale, ASA)	<input type="text" value="100"/> - <input type="text" value="400"/>

+ Add Search Group

## RAW Import

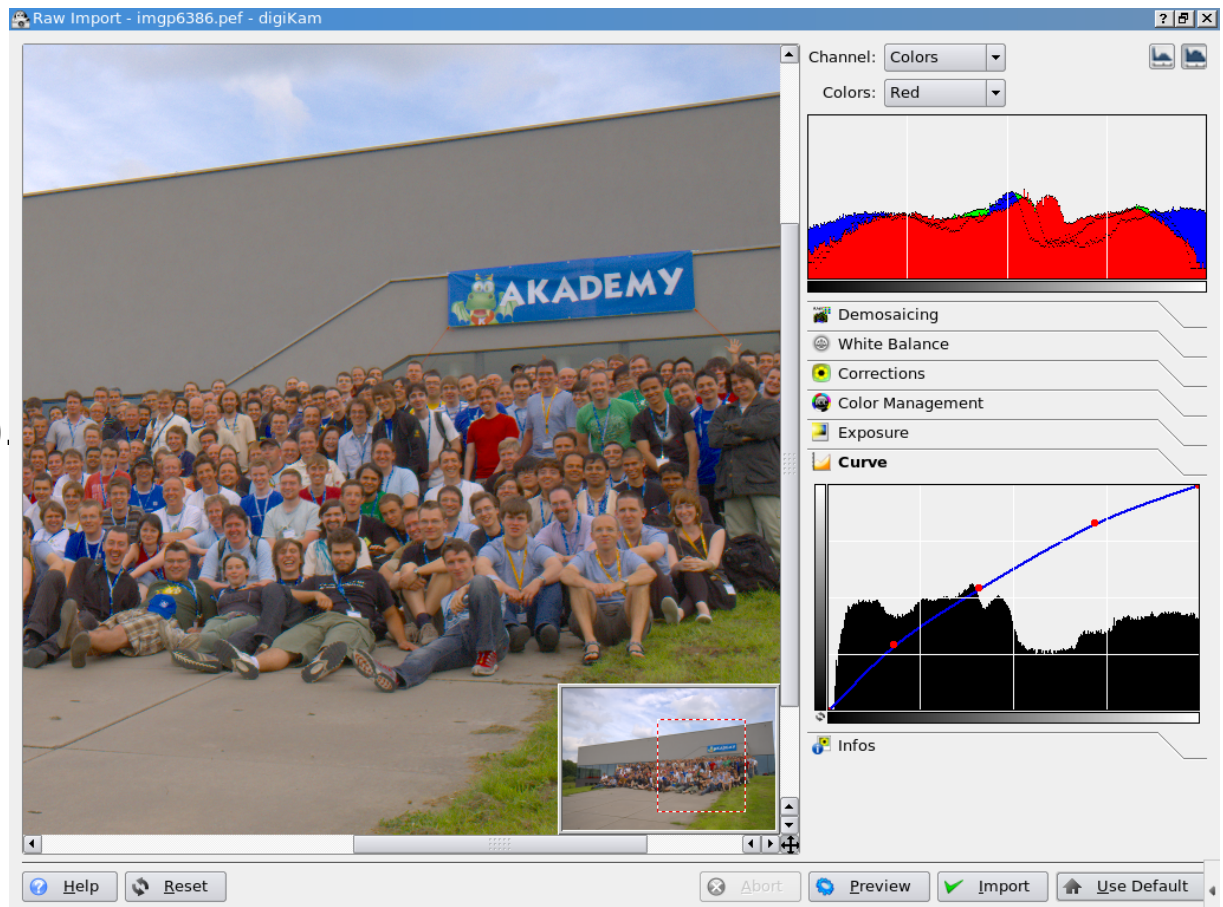
Pre-loading in editor

2 stages:

- Demosaicing:
  - \* Customize settings.
  - \* Apply corrections (Lens, NR).
  - \* Color Adjust.
- Post processing:
  - \* Exposure.
  - \* Linearity.

Provide:

- Zooming/panning.
- Multithreaded.



## In conclusion:

### digiKam goals:

- \* Be the most easy to use
- \* Adapts for casual photographers
- \* Provides advanced features for professional photographers

### The future:

- \* Versioning
- \* Actions list
- \* Backup tool
- \* Batch queue manager
- \* RAW metadata writing (Exiv2)  
==> version **1.0.0**
  
- \* Unified Web export tool (Coherence ?)
- \* DNG writing ?

More informations: [www.digikam.org](http://www.digikam.org)



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