

Beyond Hugin

Future development in Hugin Project



Current Development

- Hugin
 - feature rich, more and more technologies
- Fairly well received
 - by advanced users
 - most comments are in minor usability
- How about those people don't use Hugin?
 - maybe too difficult for them



Where to go

- One maturing foundation
- Two target users
 - Panorama photographers (pro/hobby)
 - Casual users (looking for “ iPano ”)
- in one application?
 - ...No, need two applications!



New GUI, New App

- Panorama for everyone
 - different target user
 - whole new GUI in Qt
 - not Hugin anymore (call it “*Munin*” here)
- Hugin can adopt advantages as matures
 - including core components of GUI in Qt



Munin's Interface

- Simple is the best
 - intuitive and interactive
 - priority in usability
 - over available features and flexibility
 - based on what users should see
 - not on what software does internally



Hugin for dummies

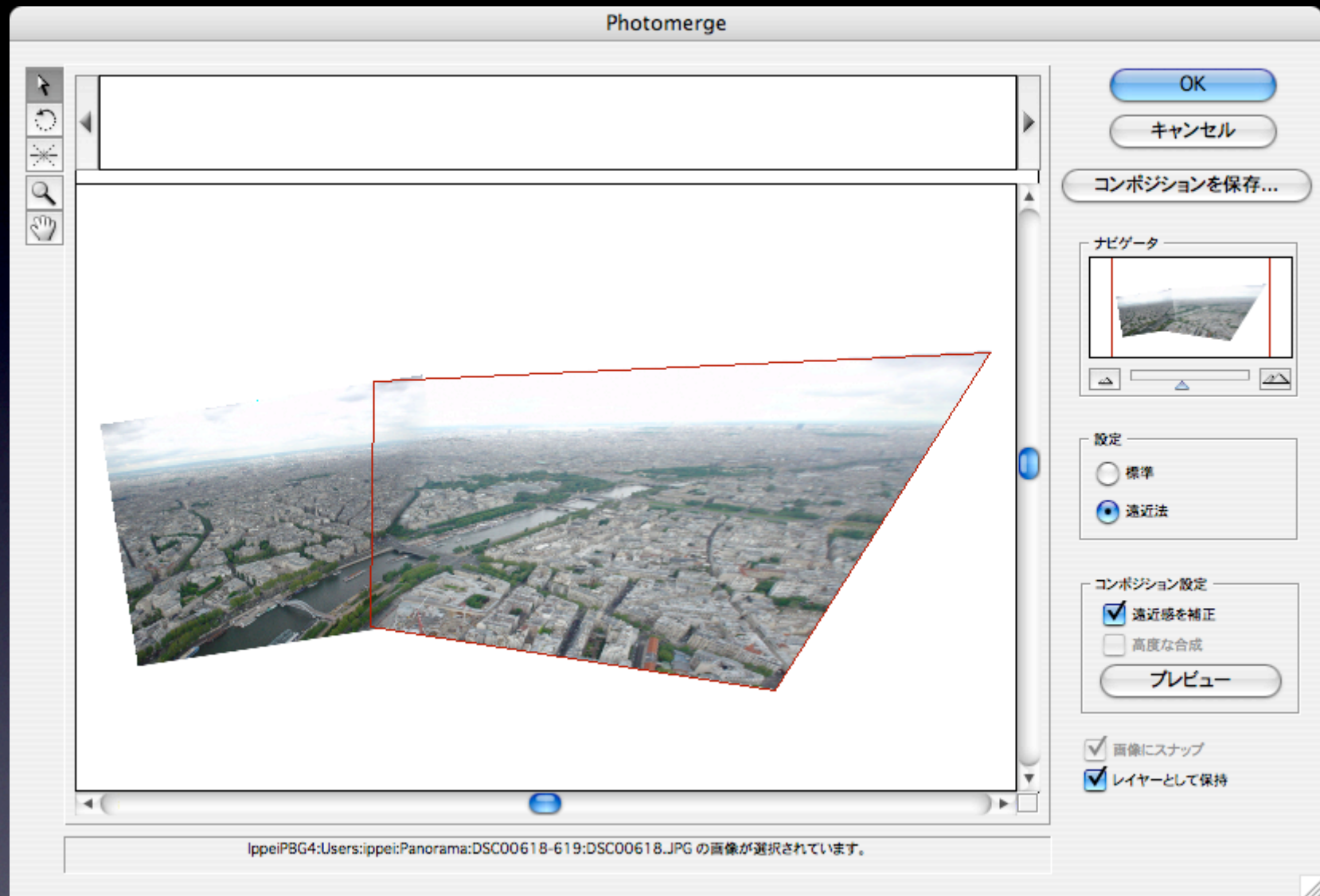
1. add multiple photos
2. set camera and lens info (Exif helps)
3. lay them out (on a sphere surface)
4. put them together (into a flat surface)



Munin's workspace

- **Workspace view (main)**
 - image shelf (images yet to be added)
 - interactive sphere surface (*cf.* VR viewers)
- **Editor view**
 - list of all images / lens-camera editor
- **Output view**
 - interactive preview
 - (list of outputs)





Photomerge (Adobe Photoshop 8.0J)



Munin vs Photomerge

- Photomerge
 - interactive, with drag and drop
 - not powerful enough for nice panorama
- Hugin's tool chain
 - less automatic
 - currently a bit slow for interactive
 - based on far more powerful model



Development Focus

- Good layout of main window
- Interactive workspace view
 - implementation with OpenGL (?)
 - interact with hotspot-like buttons
- Beginner friendly editor
 - bold simplification
 - may mean heavy “limitation” to Hugin users
 - like making a presentation to passersby



The New GUI

- New GUI, New App
 - tentative codename “Munin”
 - panorama for everyone
 - interactive interface like Photomerge
 - use (subset of) Hugin’s foundation
- Its foundation in Qt just started



Foundation

- Hugin as a document editor
 - document = panorama project
 - a set of source images
 - output through Stickers + Blenders
- many APIs are cleaned up this summer
 - clearer where new features should go



Foundation - ongoing

- Object-orientated accessor methods
 - old ones to be deprecated
- New output process
 - centred around batch processing
 - Hugin edits perspective and projection
 - out as Command-line scripting in makefile
- Better automatic control-point (Zoran)



Foundation - future

- Some cleanups left
 - internal API of Nona stitcher engine
 - flexible linked variables (Lens/Camera)
- Multiple outputs in a project
 - same scene (one set of photos)
 - multiple outputs (eg. different perspective)
- Speed-up in the remapping process



What about Hugin?

- Continue on current line
 - New technologies
 - Exposure optimization
 - Feature matching
 - For advanced users
 - HDR, Batch processing



Hugin's Development

- Usability
 - collect feedback from the user
 - incrementally improve on current code
- Foundation
 - general stability and speed-up
 - more in data structure
(linked variables / multiple outputs)



Conclusion

- Development in two directions
 - all new Simple and Easy panorama app
 - add panorama making to the “multimedia hub”
 - to become the basis of next generation Hugin
 - continuing development of Hugin
 - improving foundation / adding new technology
 - some effort in GUI improvement

