Krita: Present and Future

A look at some of Krita’s more recent developments, both in the present 1.6 branch and in the new 2.0 branch

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What is Krita

The present: Krita 1.6
  The short road since the previous release
  The feature thaw of the 1.6 series

The future: Krita 2
  Qt4 and KDE4
  KOffice2 technologies
  Krita design revisited
What is Krita

- The KOffice painting and image editing application
- Started in 1999
- Most recent release: Krita 1.6.2 on February 21, 2006
- In Swedish, Krita means ‘chalk’ or ‘crayon’.
- http://www.koffice.org/krita/
What happened in the last year?

We released 2 major versions

- Release of KOffice 1.5.0 on April 11, 2006
- Release of KOffice 1.6.0 on October 16, 2006

Some of the new features in Krita 1.6.0 include

- Layer masks
- Perspective grid → perspective cloning, manipulation
- Curves: magnetic outline, bézier
- Improvements in loading and handling huge files
- New filters (lens correction, better blur, ...)
- Tablet pressure curve editing
Layer masks

- Merge *parts* of two layers without destroying the original contents
- Masks out a part of the regular composite operation
- Paint on it like a regular greyscale layer, or like on a selection
- Can prevent you from ‘drawing outside the border’ (create from selection)
Perspective cloning

- Regular cloning: does not keep into account perspective changes
- Perspective cloning adds a grid that visualises ‘perspective’
- Cloning is done, but the cloned part is transformed according to the perspective grid
- Unfortunately: no multiple grids can be combined (GUI would suck even more, but perhaps for Krita 2)
- A good demonstration of how it works at http://www.koffice.org/krita/videos.php
Curves

- Developed during last summer’s Google Summer of Code
- Has a added generic framework for drawing curves in Krita
- First application: Bézier curves
- Second application: Magnetic outline
Curves: Magnetic Outline

- Create a curve following your mouse
- Tries to follow edges in the neighbourhood of the mouse
- Inserts nodes at regular intervals near the mouse position, tries to detect the best line between two nodes
- The more contrastful and sharply outlined the area, the better the result
The feature thaw of the 1.6 series

- What is a feature thaw?
  Allowing new features to be added to a stable branch, wrongly spelled strings can be fixed.
- We unfroze for 1.6.1, 1.6.2 and maybe for the upcoming 1.6.3
- Allows for long-lived branches to be more alive than otherwise.
Levels in 1.6.1

- Began as a wishlist entry in the bugs database: http://bugs.kde.org/show_bug.cgi?id=129789
- Someone claimed it would be easy to implement this, we called his bluff
- Related to Brightness/Contrast
Smudge in 1.6.2

- Implemented after user request
- Very easy to actually write that code
Qt4 and KDE4 will offer some nice new technologies that KOffice2 will be able to use.

- Qt4’s better threading, KDE4’s ThreadWeaver
- KDE4’s Phonon: Playing of audio and video objects in KPresenter

KOffice also moved some code to KDELibs: Kross, so that all KDE4 applications will be able to use this.
Flake

- Flake Shapes: everything you see is a shape
  - KWord → everything is a Flake shape, even pages
  - Krita → embedded Flake shapes (vector graphics, text)
  - KPresenter → everything is a Flake shape
- Lightweight embeddability, compared to a full-fledged KPart like KOffice 1.x
Pigment

The KOffice color management library. Was originally Krita’s libkritacolor.

- Offers some basic colorspace hardcoded: Alpha, L*a*b*
- KOffice-wide plugins for the common colorspaces: RGB, CMYK
- Krita-specific plugins for natural media, HDR
Resolution

- Often requested feature
- The Flake redesign was the ideal moment for adding working resolution to Krita.
- ‘20cm + 15mm’?
Layers: masks, selections and filters - The Present

Our current 1.5+ design needs some reworking:
- Per-layer selections, wanted or not?
- Filter layers work on the entire stack below them
- Masks are very static, badly integrated in the layerbox
Layers: masks, selections and filters - The Future?

There are proposals for 2.0 that could fix some of this:

- **Selections:** ‘controversial’ issue. Selections as a special sub-layer? Global selection?
- Let normal layers have filters as a per-layer stack of filters
- Masks could be just some layer-filter → easy to manipulate, equal integration with filters
OpenRaster

- Better cross-application exchange of raster data for the free software world (.kra, .xcf are too specific)
- A possible solution: ‘OpenRaster’
  (http://create.freedesktop.org/wiki/index.php/General_multilayered_bitmap_exchange_format)
- Very experimental stage at the moment
- Support for the GIMP might be delivered partly by GEGL
  (http://gegl.org/)
Dynamic brush

- Proposed enhancement of the current ‘brush’ tool
- Add different actions to the tablet input
- Implemented as a separate paint operation
So where can you help?

You don’t need to be able to code:

► Report bugs (also for alpha and beta versions!)
► Write documentation
► Report about usability issues (developers often don’t see the problems with their own applications anymore)
  ► Hard to discover features
  ► Obvious actions not used for a feature
  ► Contra-intuitive GUI design
► Keep bugging us if we don’t fix them ;−)
Questions?