



Paint-Photo Editing



Robin Rowe

CinePaint Project Leader

Robin.Rowe@CinePaint.org

Ubuntu FOSScamp

December 5, 2008

10am-11am

Location:

Google, Inc.

Crittenden Campus, Bavorr Room

1400 Crittenden Lane

Mountain View, CA 94043



Pro Image Terminology

- Deep paint is about leaving head room
 - 8/16/32-bit, more bits is better
- Consumer “24-bit monitor” is 8-bit to pros
 - Depth always by channel, not pixel
 - Pros utilize more than three channels
- CMS is Color Management System, not CVS
- HDR is High Dynamic Range, super bright
- Compositing puts object over background
- Green Screen replaces color with background
- Roto is background replacement by hand
- A texture is an image mapped onto a 3D model
- Render is output of 3D model into 2d frame 2/10



Today's Pro Image Tools

#1 Photoshop - Deep paint/HDR/CMS

#2 CinePaint - FOSS deep paint/HDR/CMS

#3 Krita - FOSS deep paint/HDR/CMS

#4 GIMP - FOSS 8-bit paint/CMS

Ranked by popularity among high-end users



Paint Tool Mandates

- #1 Photoshop - To continue to be #1
- #2 CinePaint - To support high-end users
- #3 Krita - To represent KDE Office
- #4 GIMP - To represent GNOME

Only CinePaint cares about Photoshop compatibility



CinePaint Features

- Paint in 8-bit, 16-bit, 32-bit per channel color
- Image retouching (clone brush)
- CIN, DPX, EXR, TIFF, JPEG, PNG (2k images)
- Flipbook movie player (no sound, RAM only)
- Texture painting (for 3D models)
- Dirt and wire rig removal (fly Peter Pan!)
- Render repair (when faster to touch up by hand)
- Background Plates (really big 10k images)
- Roto (oops, no green screen)
- HDR (digital Ansel Adams)
- Color management (LCMS, Argyll, Oyranos)
- 16-bit Printing Based on GutenPrint



Pro Paint Landscape

- Photoshop is the standard, despite no Linux
- Photoshop won't release on Linux, not because they can't, but because not enough money in it
- Wine on Linux not keeping up with new Photoshop versions
- Any tool must support Mac and Windows, too
- Pro freelancers are hired last minute per project and can't be readily retrained
- GPL license a boon for lawyers, project requires review by expensive studio IP attorney



CinePaint Principles

- Say Yes!
 - Accept all contributions that don't break mandated features
 - GTK2 port saved us when FLTK took longer
- Embrace film industry FOSS projects
 - FLTK, Subversion
- Avoid time-wasters (caused by hard to debug)
 - Autotools, GTK
- Nurture redundancy, avoid show-stoppers
 - GTK+OSX *and* GTK2
 - Autotools to Cmake *and* Scons *and* Cons
 - CVS to Subversion *and* Bazaar



Linux Release Issues

- Distro support takes a lot of resources
- Debian maintainer retired, no replacement
- Falling out of Debian knocked out Ubuntu, too
- Now have three Debian maintainers working with CinePaint to get back into distro
- Argyll and Oyranos CMS libs not in Debian
- 3rd-party libs are not to be packaged with app
- 3rd-party lib maintainers may not cooperate with packagers, makes it harder



FOSS Paint-Photo Goals

- Painless and fast workflow
- Flexible architecture
 - File plug-ins (img_img)
 - Filter plug-ins
 - Brush plug-ins
 - Want to share plug-ins across apps
- Themable user interfaces
 - Skins like WinAMP, hide or reveal complexity
 - Grandma UI option, simplify for newbies
- Viable alternative workflows
 - F-Spot vs. Aperture
 - CinePaint vs. Photoshop
 - Oyranos vs. ColorSync



Paint-Photo Editing



Robin Rowe

CinePaint Project Leader

Robin.Rowe@CinePaint.org

Ubuntu FOSScamp

December 5, 2008

10am-11am

THANK YOU!

Location:

Google, Inc.

Crittenden Campus

1400 Crittenden Lane

Mountain View, CA 94043