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Abeed

Lena

An image processing application



Lena
Söderberg



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RAHUL

- playboy model
- her image main streamed image processing in the early 70s
- Image of Lena Söderberg used in many image processing experiments
- ****standard test image widely used in the field of image processing since 1973.
- 512x512px standard test which what we used for our app

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What is Marvin?

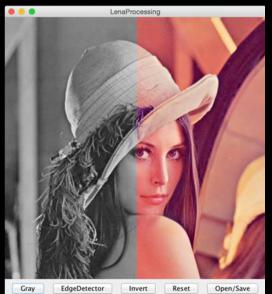
- No UI/UX
- No flexibility
- Not for everyone
- Not actually marketable

NEZAR

- open source project found on source forge
- no interface for users to use
- had to change the physical code to use different pictures/filters
- had to understand how the code works...
 - so background to java ==> only for coders
- how does one sell a product so raw?

What is Lena?

- Image Processing Application
- Easy-to-use GUI
- Multi Platform
- Open Source



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ABEED

- simple building blocks to something beautiful and marketable
- desktop based image processing application people can use on a daily basis
- we designed an easy to use GUI that can be ran on Multiple platforms
- we kept it as an open source coded in java (transition to PORTABILITY)

Portability

- JAR (JRE needed)
- Multi Platformed
- Useable off USB



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ABEED

its just an executable jar only thing that is needed is a Java Runtime Environment

Windows, Linux and OS X

you can put it on usb and run it straight from there



Gray



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RAHUL

- as of now we have 3 elegant filters
- we have the potential for expanding to new filters (due to the extensive Marvin framework)
- can layer filters



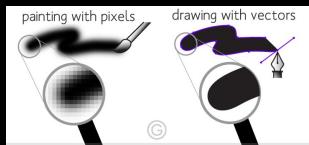
Edge Detection



Invert

Added Features

- File Import/Export Interface
- Significant reduction of errors
- Support for most Raster file formats



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NEZAR

- familiar file explorer interface, makes it easy for everyone to use
- implemented a safety net to filter on only supported image files to reduce ERRORS
- file formats: raster (pixel based)
- vectors (svg) vs raster

http://vector-conversions.com/images/vector_vs_raster.jpg

"Simplicity"

 **"Perfomance"**

"Quality"

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ALL

- 3 fundamental concepts we based our application on
- we like to call it the S.P.Q.
- a simplistic design, so simple a child could use it (or a grandma)
- performance, quick rendering times; our app outperforms the competition
- quality, put it through standard tests and the resolution never changed, keeping preteen quality

Usability

8 clicks



10/10 Easiness rating



ages 3 - 87

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so simple... insta

london scout - 137k followers

baddie winkle - 2.5M followers

simplicity is one of our main focuses so we ran a survey

- average clicks, easiness, age



Performance

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Upload Time : Under a Second
Processing Time : Instantaneous

- Generate figures algorithmically using fractals, Lindenmayer systems and other approaches.

Quality

- Resolution : no changes
- Compression :
 - * negligible differences resolution
 - * can compress down to half the file size

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through multiple filtering algorithms our standard testing shows no change in quality while saving the file is compressed because our filters use fractals the computer recognizes the patterns and is able to compress the file after compression the quality does decrease but not noticeable to the human eye in layman's terms: makes mathematical set out of repetitions due to the repetitions being identified we use this to can compress the file

We listen...

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ABEED

**** this also speaks to our maintainability

>> "Picture doesn't fit in window."

<< Frame auto resizing

>> "Want to be able to remove all edits"

<< Reset button, returns image to original state

>> "Can I combine filters"

<< Can layer as many filters as you desire

User feedback

"Wow, even my grandma can use this!"

- Nabil Sakran (fellow classmate)

"Faster than I expected!"

- Dr. Smith (course instructor)



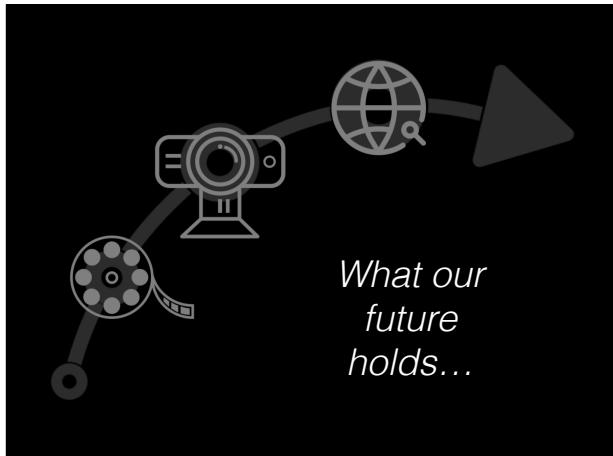
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RAHUL

stars come from survey

why the drop??

would like an easy way of sharing the image (like insta)



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NEZAR

mp4s

webcam interface (pong game)

webinterface