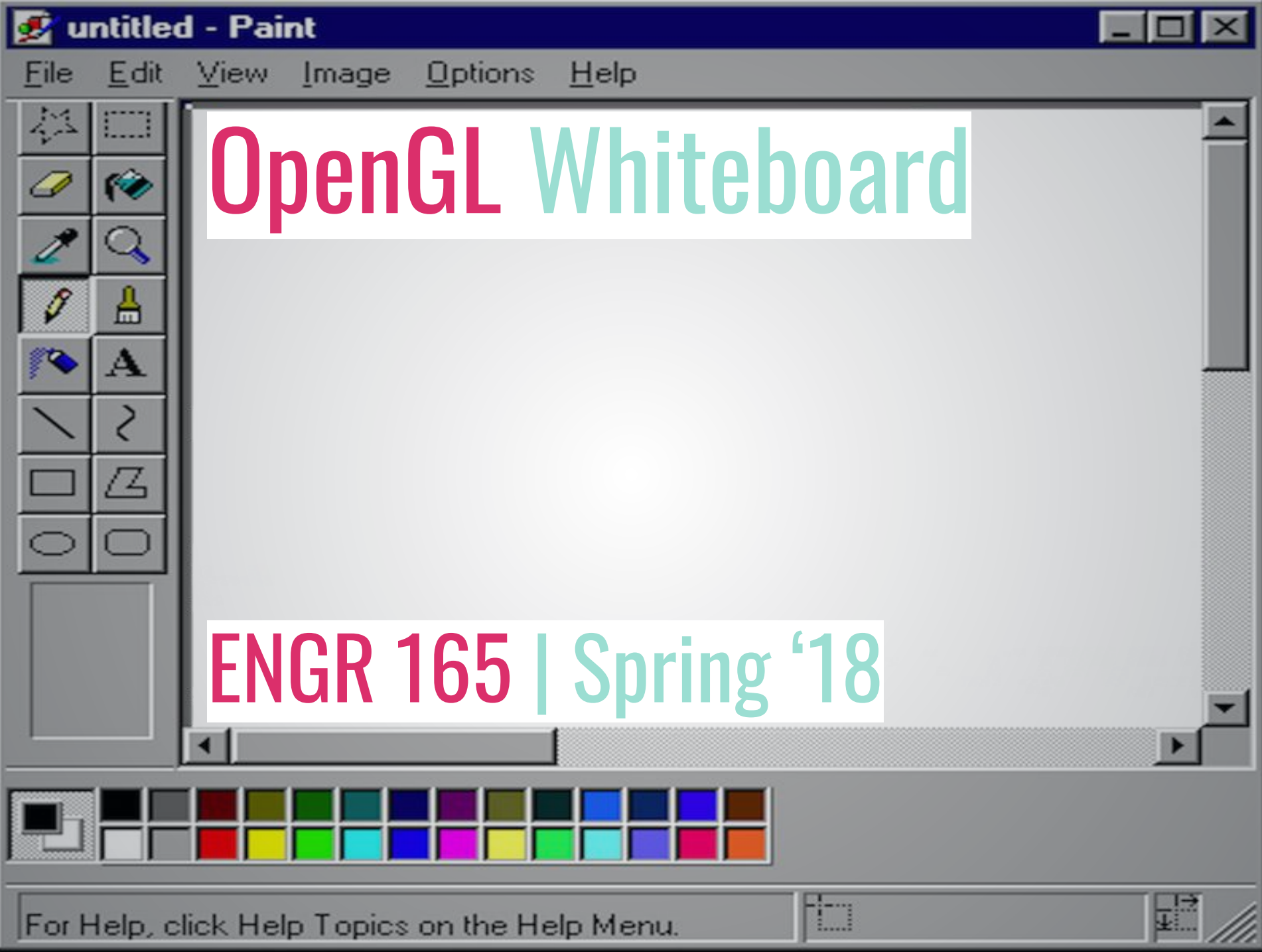

untitled - Paint
File Edit View Image Options Help
OpenGL Whiteboard
ENGR 165 | Spring '18
For Help, click Help Topics on the Help Menu.

Project Overview:
Graphics Editor

Goal: Implemented a Microsoft Paint-like app

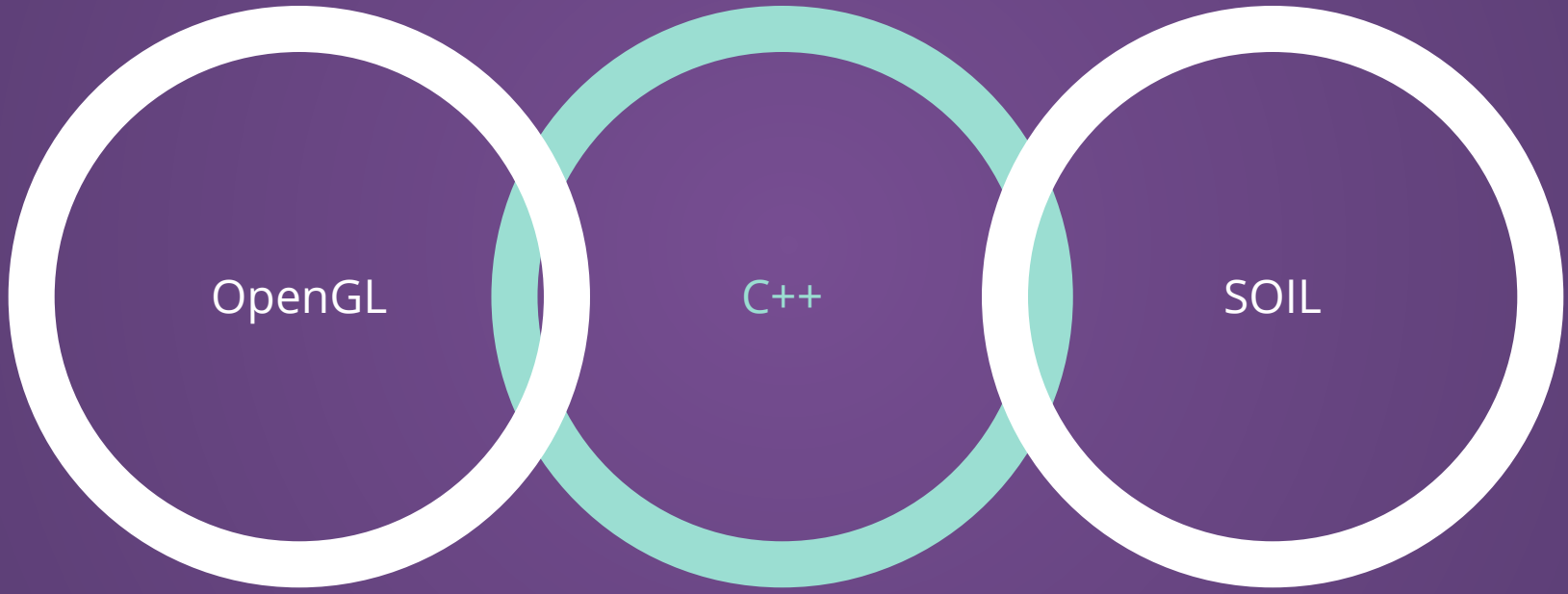
- OpenGL-based graphical interface

Features:

- Free-hand draw using the Pencil tool
- Color Palette with 8 unique colors
- Shape resizing
- Selection animations
- Eraser tool

Project Dependencies

Graphics Editor Dependencies



Graphics Editor Dependencies

OpenGL

- Cross-platform application programming interface (API) for rendering 2D & 3D vector graphics

C++

ISO standard programming language that allows for direct control over system memory

- Useful for pointers

SOIL

Simple OpenGL Image Loader

- Cross-platform image loader
- Can read a variety of image formats:
  - BMP
  - JPEG
  - PNG

Project Stats

4,037 lines

Of code added to the OpenGL boilerplate

14 commits

To achieve our MVP

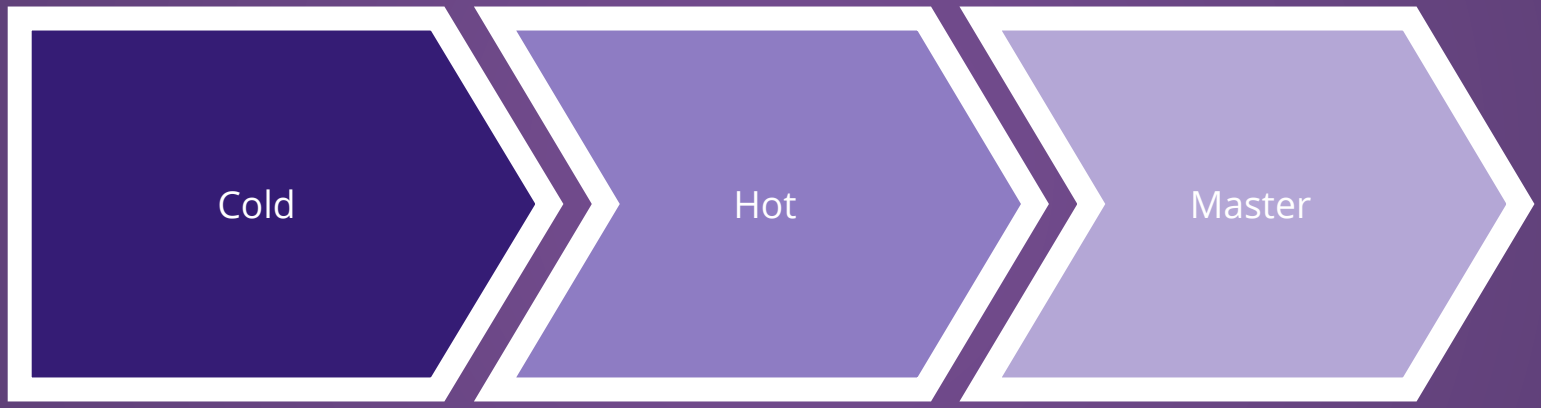
10 classes

Custom to our graphics editor

WHAT WE LEARNED: VERSION CONTROL

In order to maintain code consistency across all of our devices, we had to use *Git* version control

VERSION CONTROL: GIT WORKFLOW



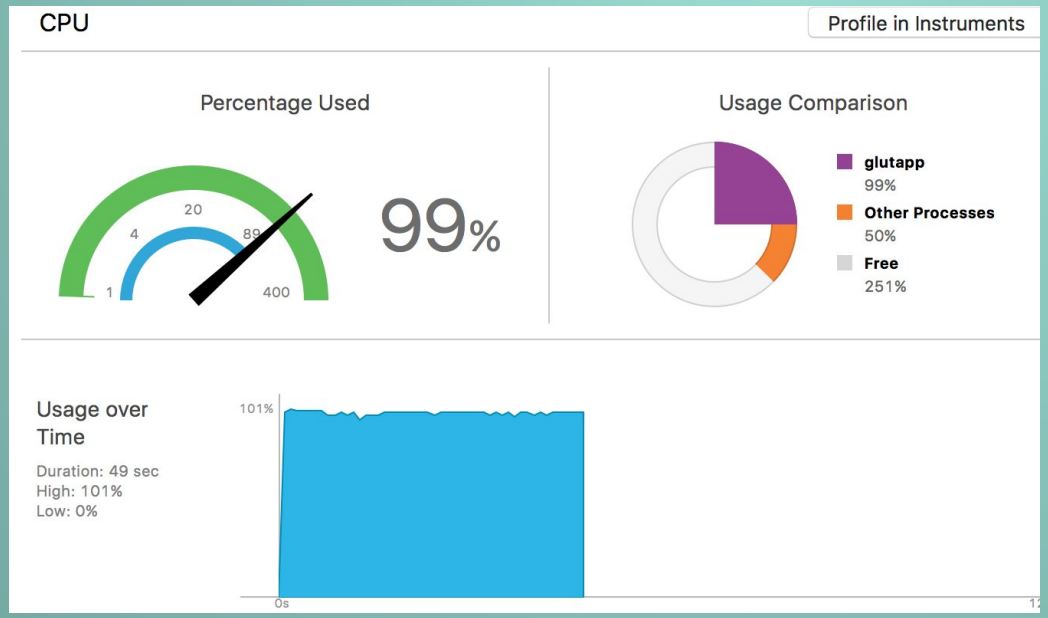
All code changes were first pushed to the `cold` branch.

Commits were then *peer-reviewed* and merged into the `hot` branch
Finalized versions were pull requested into `master`

FUTURE WORK + NEXT STEPS

THINGS TO IMPROVE ON

- Runtime performance and memory management
- Sticker packs (emojis/faces)
- Custom whiteboard backgrounds



THANKS

~ANGELO'S ANGELS~

CSE 165
cse165.slack.com

github repo:
/jonathanloganmoran/engr_165_final_proj

@jonathanloganmoran @emilybossiere @wdstanton @nnavarro

CREDITS

OpenGL. Khronos Group, LLC

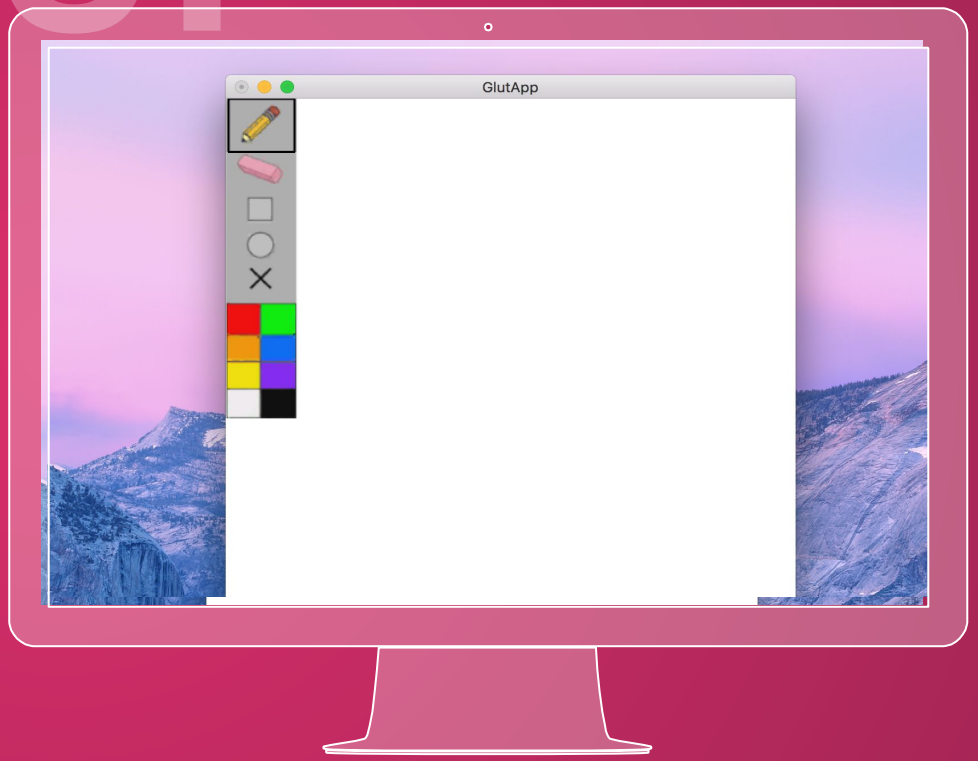
https://www.opengl.org/about/

SOIL Image Library. LoneSock

http://www.lonesock.net/soil.html

Special thanks to:

- Angelo <3333 for your help in office hours

DESKTOP DEMO

Running on MacOS
in Xcode 9.2