

Magic Eye: An adaptive 2D-3D Stereo Viewer

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Intermediate Presentation

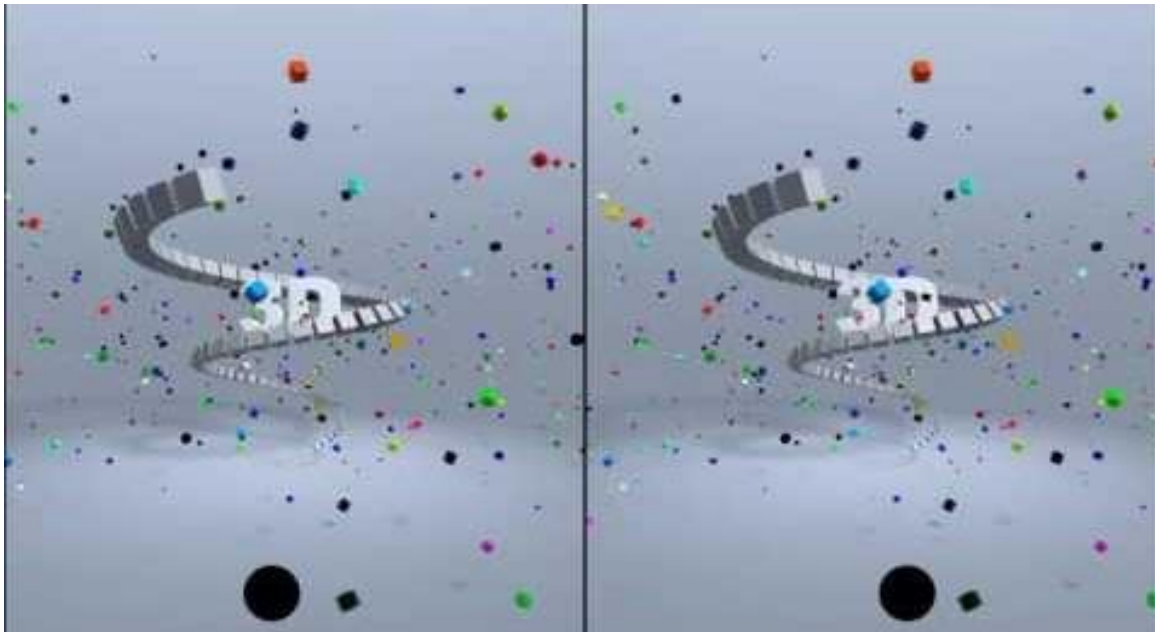
Computer Aided Medical Procedures (CAMP)

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June 29, 2017

Recap

- Designing and implementing a free-view 2D-3D stereo viewer



3D without glasses Cross Eye [1]



Donald Simanek. How to view 3D without glasses. [2]

- [1] <https://www.youtube.com/watch?v=PW-ZtvYFGTQ> (May 27, 2017)
- [2] <https://www.lhup.edu/~dsimanek/3d/view3d.htm> (May 27, 2017)

Tasks

- Implement a rendering pipeline from a 3D scene to stereo images
- Implement eye tracking algorithm
- Implement GUI
- Testing and Debugging
- Verification and Validation
- Image fusion method evaluation
- Documentation and Report

Obstacles and Possible Risks

Encountered problems

- PCL compiling from source

Risks

- Eye tracking
- Time



[1]



[2]

- [1] <http://pointclouds.org/> (June 28, 2017)
- [2] <https://cmake.org/> (June 28, 2017)

What has been done?

- All necessary libraries compiled and integrated into the project (exception – eye tracking)
- Classes design developed
- Rendering pipeline ready on 90%

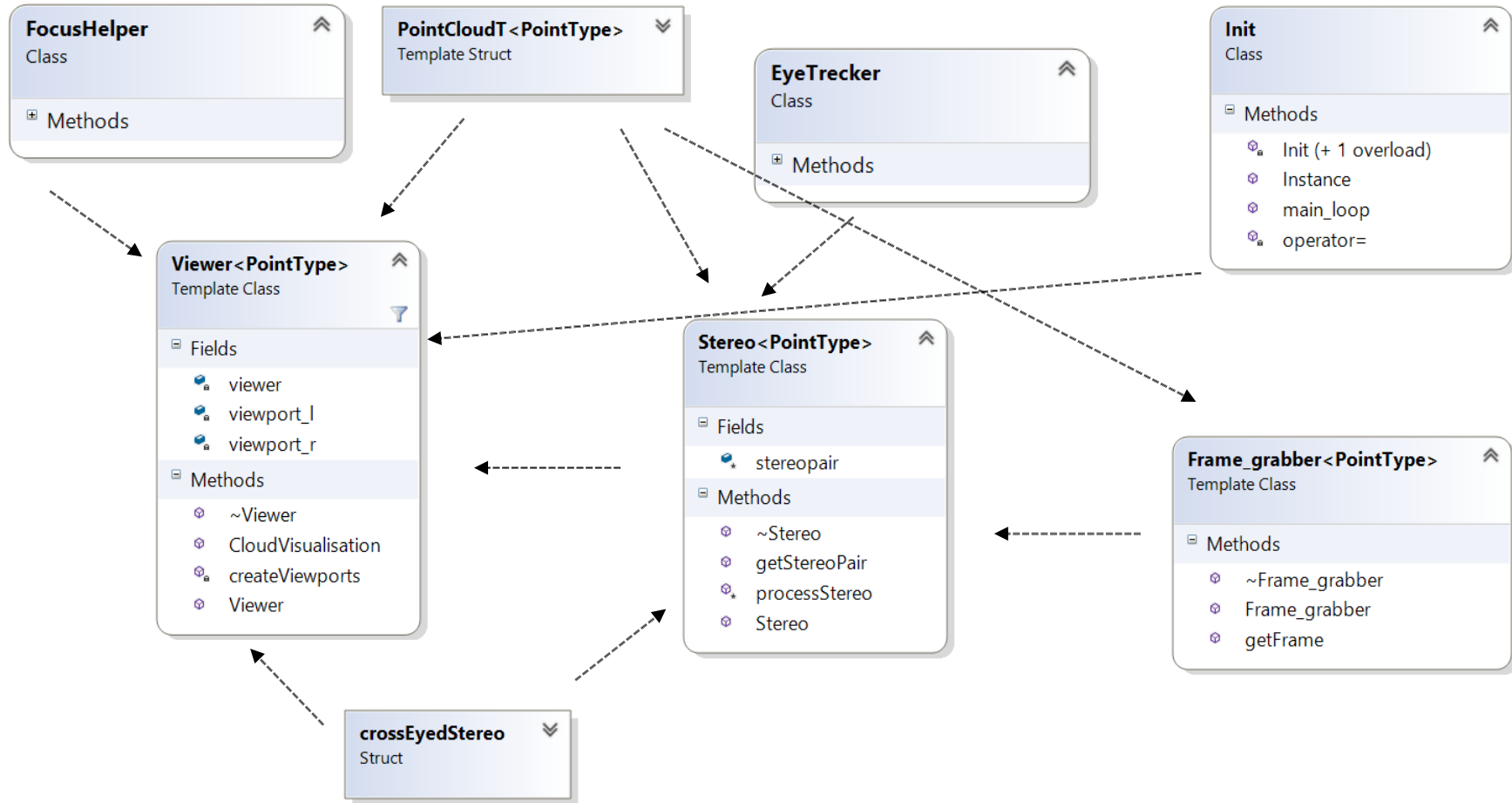


[1]

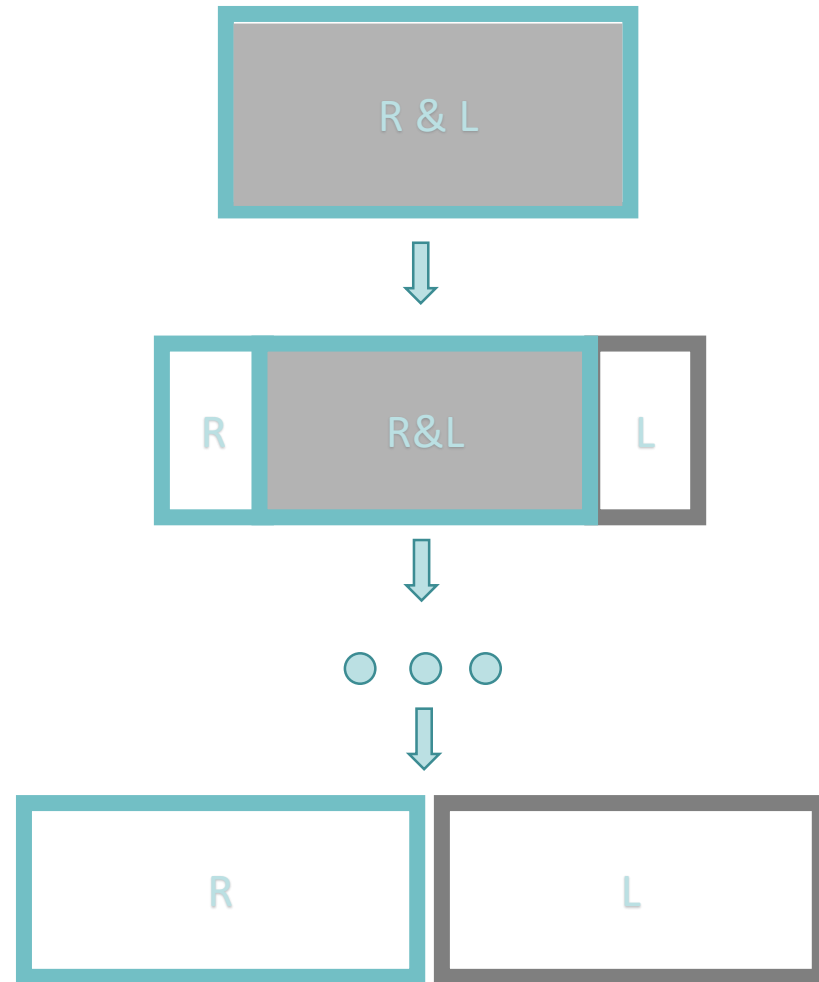
What still needs to be done?

- Implement GUI
 - Testing and Debugging
 - Verification and Validation
 - Image fusion method evaluation
 - Documentation and Report
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- [1] https://www.iconfinder.com/icons/169922/ready_retina_icon (June 28, 2017)

Class Design

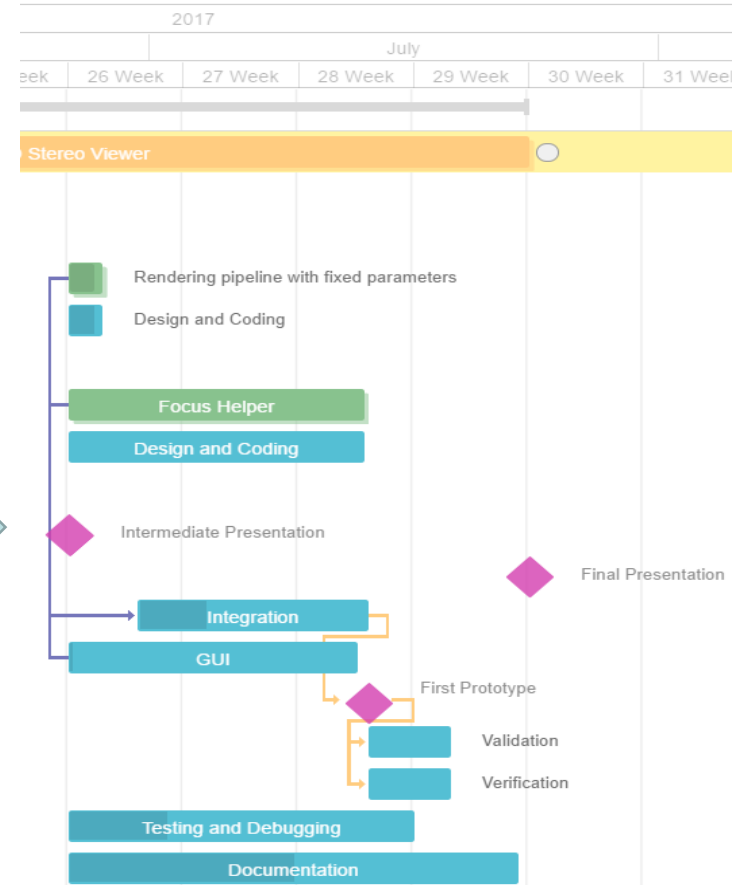
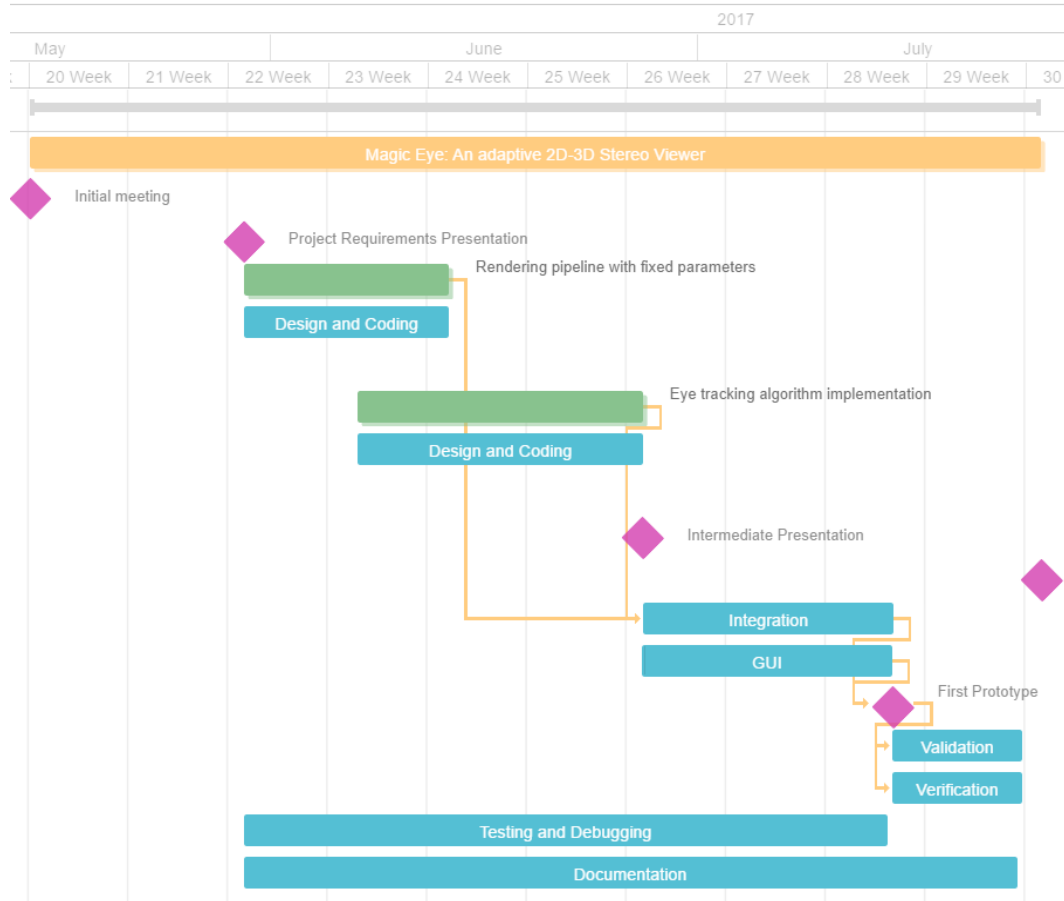


Focus Helper Idea



GANTT Project Plan[1]

Update



- [1] created with [GanttPRO](#)

Questions?



[1]

- [3] <http://goboston2030.org/the-question-campaign/> (May 27, 2017)