



Project Management and Software Development

Dyna-Eye: A dynamic 2D-3D Stereo Viewer

Requirements Presentation – 09.11.2017

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Presented by: Ruiqi Gong

Background & Motivation

- 3D view: important for surgeries
- Common methods:
 - Head mounted display
 - Stereo control cabinet
- Drawbacks:
 - difficult interaction with the team
 - always focus on the same plane regardless of the depth



aerzteblatt.de. "Medica 2015: Schaufenster für Innovationen". (05.11.2017)

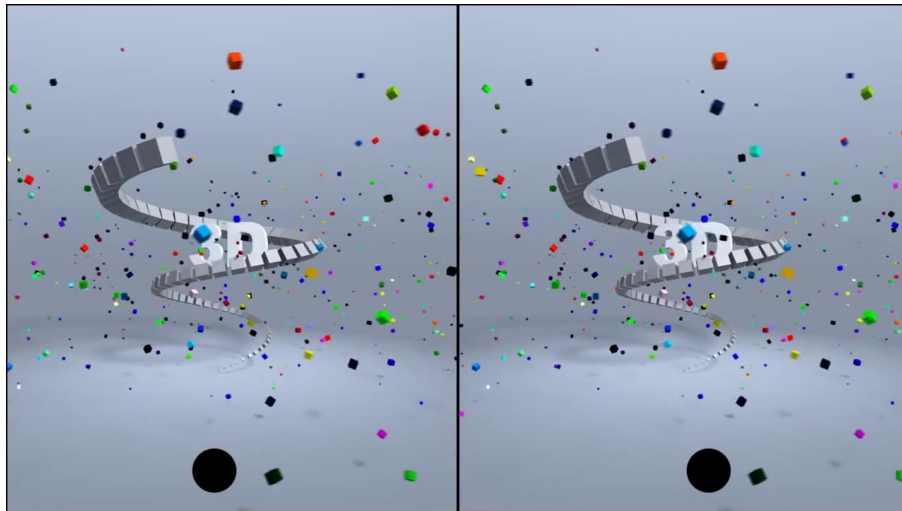


investors.com. "4 Big-Cap Medical Device Stocks Reporting Earnings This Week". (05.11.2017)



Main Idea

- Stereo view with crossed eyes
- Pros:
 - No additional devices needed
 - Focus changes with depth
- Cons:
 - Training required



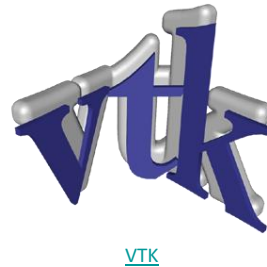
[YouTube](#). "3D without glasses, Cross-Eye HD" (07.11.2017)



[Donald Simanek](#). "How to view 3D without glasses". (05.11.2017)

Tasks Description

- First: Static stereo view with pre-defined “focal length”
 - 3D rendering for multiple fixed focus points
- Next: Dynamic stereo view
 - 3D rendering for a focus point that moves smoothly
- Programming Language: C++
- Libraries:



Stakeholders



FRAMOS GmbH



Chair for Computer Aided Medical
Procedures & Augmented Reality

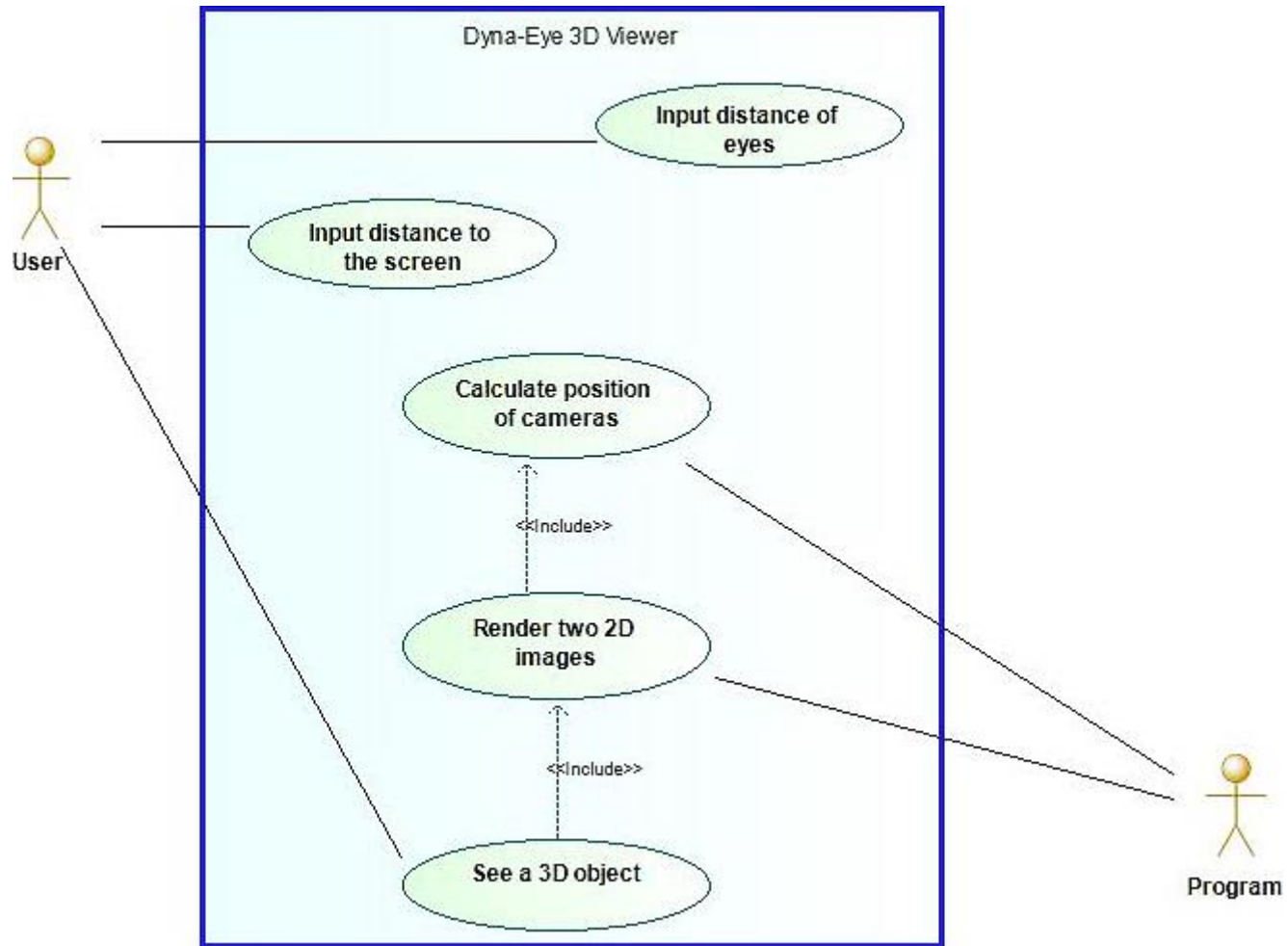


Klinikum rechts der Isar
Technische Universität München

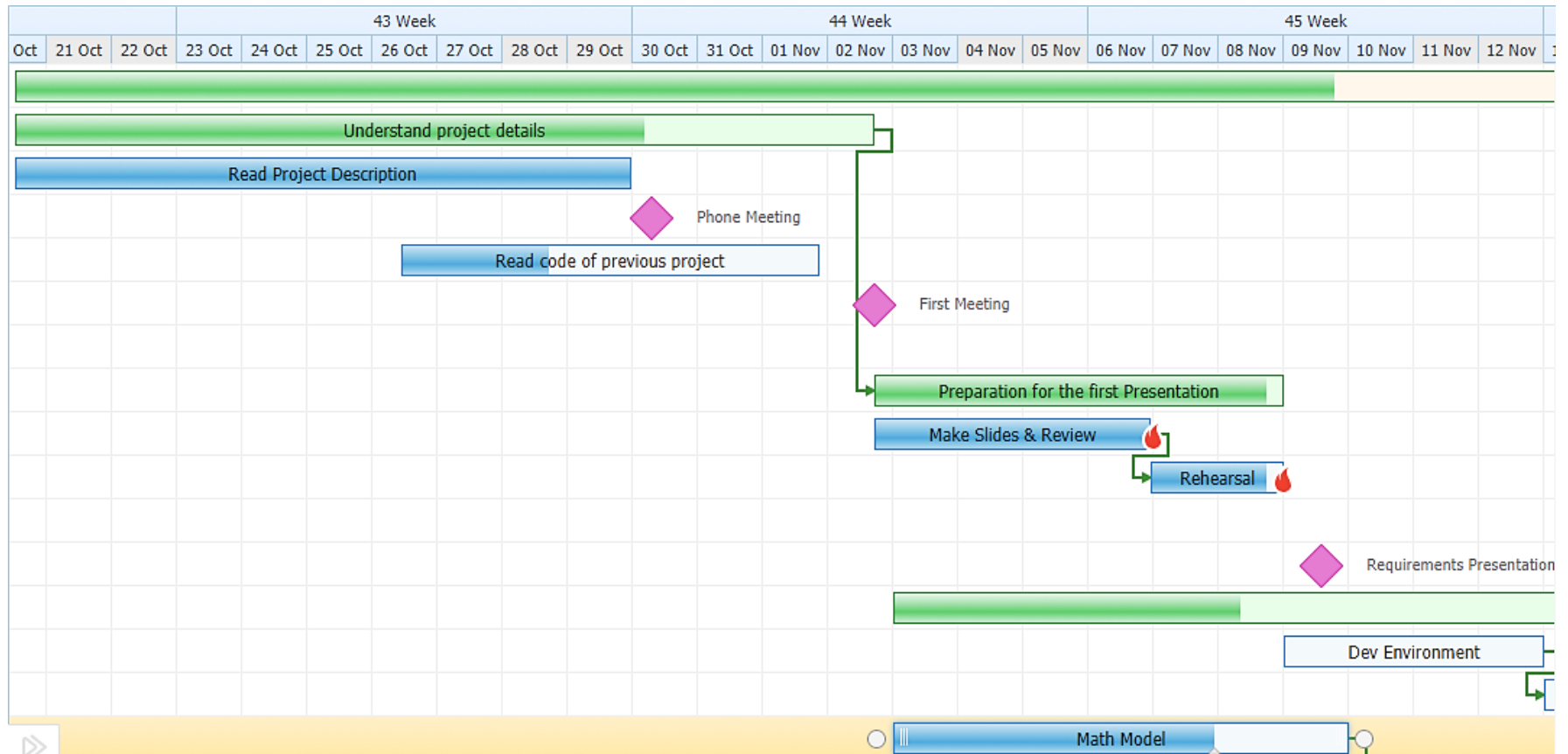
Interdisziplinäres Forschungslabor (IFL)



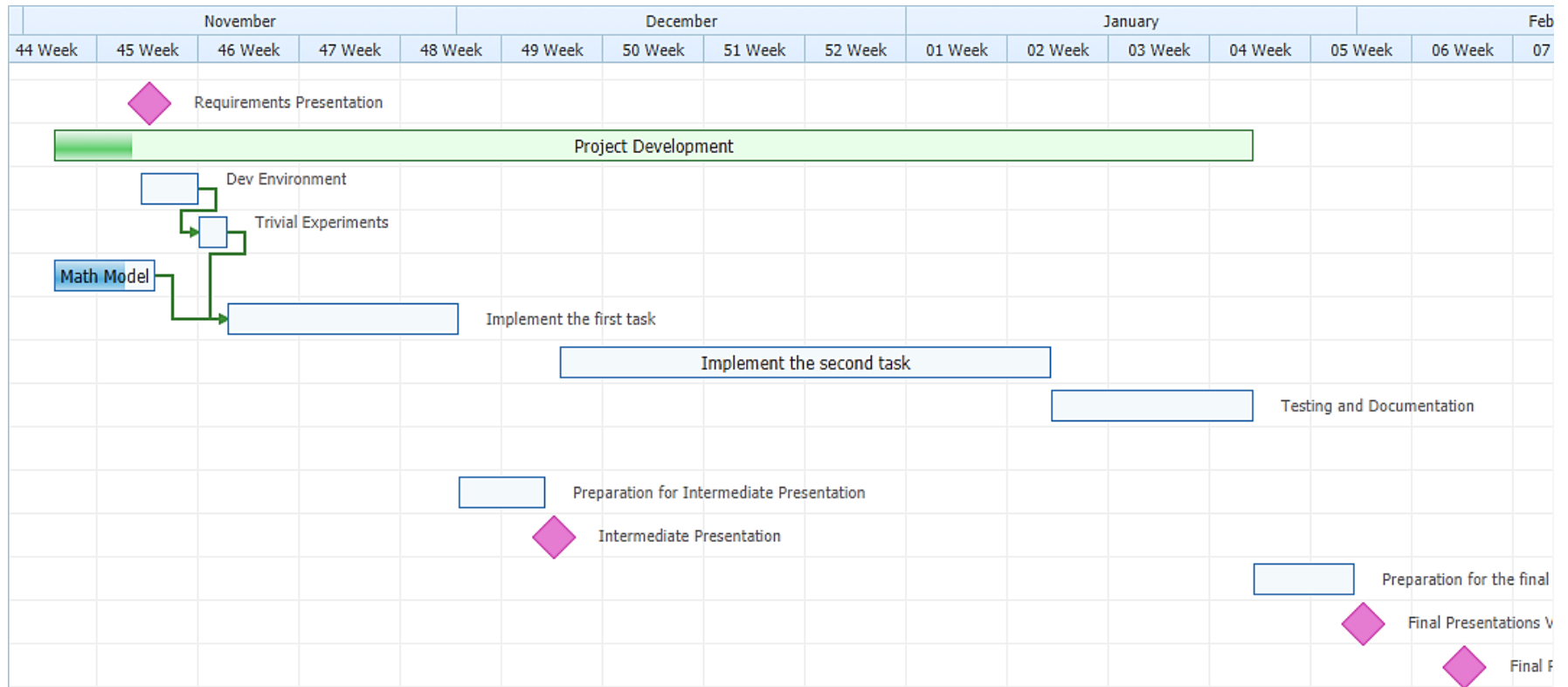
UML Diagram



Gantt Project Plan



Gantt Project Plan





Thank you for your attention. 😊

Question?

