

API Integration for VR Simulator

Project Management and Software Development
for Medical Applications

General Info

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Project Abstract

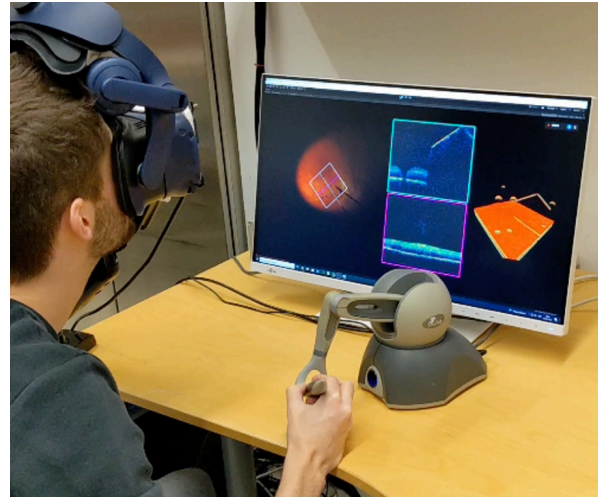
The aim of the project is creating APIs for a VR system, which makes controlling and monitoring the system accessible through other potential units.

Background and Motivation

Surgical simulations have gained more interest in the previous years, and building these simulation systems needs different blocks being able to communicate with each other. On the other hand, for analysis, statistics, and creation of a second virtual environment to interact with the current scene, there is a need of continuous access to the state of the VR environment.

Student's Tasks Description

Student's task is to identify the best technology for this use case (ROS, Networking, etc), and implement the communication to control and monitor the scene in a modular way, so that in case of any update or introduction of new elements to VR scene, it can be easily adjusted with the new environment.



Technical Prerequisites

Following experiences and knowledge is required:

- Expertise in one of the common programming languages (Python, C/C++, C#, Java)
- Unity Experience
- ROS
- General Computer Engineering Understanding
- Passion for clean code