

The Pervasive Computing Group is looking for a student from the field of Information Technology or Computer Science for a **research project** or a **Bachelor / Master thesis** entitled:

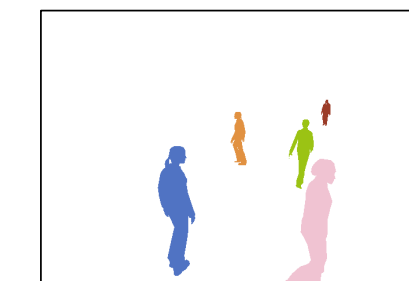
Virtualization of Real-World Scenarios based on Half-Life 2 Mod

This work will be performed as part of the TrustEYE research project. Background information about the TrustEYE project and its goals can be found at <http://trusteye.aau.at>

Work Description

New privacy preserving methods developed as part of the TrustEYE project have to be tested in as many different scenarios as possible. For this purpose, several **video recordings** of those scenarios

are needed from different angles and with various settings. These real-life experiments are quite costly, not repeatable and many times dependent on licenses and permits from the recorded persons and location. An **accurate virtualization of reality** is an ideal solution to avoid these issues. The **ObjectVideo Virtual Video (OVVV)** tool is a freely distributed mod for Valve Software's popular game Half-Life 2. This tool generates realistic video from **simulated cameras** in an interactive virtual world.



The main objectives of this project are to **construct** several different **scenarios** with the OVVV tool according to the needs of the TrustEYE project and to **develop a utility framework** that can handle these virtual worlds, the recorded video material and the experiments together.

Required Skills:

- C/C++

Desired Skills:

- Basic experience with 3D modeling
- Basic experience with image processing
- OpenCV, Hammer, Qt



HALF-LIFE 2



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