Reducing dizziness when using a video-see-through head-mounted display

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1 Introduction

LAST summer during my internship I developed a basic video-see-through viewer for a head mounted display (HDM) prototype developed in the CVC[1], the main goal is to improve this viewer making it expandable for future modules and reduce the adverse physical reactions that it can produce to the users [5], [1]. It has to be said that this research project is focused mainly in the software, the prototypes and other hardware aspects will be out of our concerns and will be developed by others researchers of the CVC. A communication channel though is opened to discuss about the development of the whole project.

The head mounted displays first appeared in 1965 when Ivan Sutherland developed the first HDM called "the sword of Damocles" [4], it paved the ground to further development in the field. The development of this technologies have grown in the last years mainly centered in the videogames field. Some examples of this are the Oculus [3] in figure **??** or the HTC Vive [2]. These products are virtual reality headsets, therefore they are only capable of showing computer generated scenes. The developed project prototypes differ in this matter because they can also show the real world, this kind of HDMs are called video-see-through.

2 Objectives

After these firsts weeks of development some objectives have change and other have appeared, as we will explain in 4 the development time of the depth map was underestimated and some change had to be made in the project planning.

Related with the depth map, a new objective appeared, the integration of a calibration system that will allow us to undistort the stereo pair

3 Methodology

4 Planning and development progress

5 Acknowledgment

This work is supported in part by a CVC transfer project with ProCare Light company, and partially funded by the Spanish Ministry of Economy and Competitiveness and FEDER under grants TIN2014-56919-C3-2-R and TIN2017-89723-P.

References

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