

The development of virtual and augmented reality headsets opens up many possibilities for using these technologies in industry, entertainment and other sectors. The aim of this work is to explore the possibilities and design the applications, that will ensure that by using Microsoft HoloLens v1 and Microsoft Kinect v2 there will be a possibility to capture, process, transfer and render dynamic point cloud on the HoloLens side. The functionality is divided between three applications. The first one is a desktop application on which the capturing, processing, and a server is running. The second application, the client application, provides rendering and the user interface on HoloLens side. The third application is used to test the network throughput, simulating the point cloud video transmission. This work describes the process of how to connect a sensor to the computer, looking at yourself from a bird's eye view, and the night vision that has come out of it. The results are applications that can do these in real time.