

ABSTRACT

Topicality: the need to reduce the load on the mobile device while augmented reality applications are running by optimizing and extending the augmented reality objects description language.

Purpose of the research: to create an augmented reality objects description language that satisfies the modern application needs.

To achieve this goal, **the following tasks** were formulated: to explore the existing augmented reality object description languages, analyze their advantages and disadvantages; identify the needs that the modern augmented reality object description language must satisfy; develop a language for describing augmented reality that meets the needs and eliminates flaws; develop software that uses the created augmented reality object description language; compare the results of using the developed description language with existing augmented reality object description languages.

Object of research: the process of augmented reality object description in augmented reality mobile applications.

Subject of research: the effectiveness of describing augmented reality objects from the point of storage and transmission in augmented reality mobile applications.

Research methods: research, analysis, experiment.

Scientific Novelty: the most significant scientific results of a master thesis are the optimization of the speed of serialization / deserialization of objects of augmented reality using a developed language, as well as an augmentation of language.

The practical value of the results is determined by the fact that the proposed method of data transmission can be used in augmented reality applications and improve the user experience.

Relationship with working with scientific programs, plans, topics: The work was performed at the Department of Computer-Aided Management And Data Processing Systems of the National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute» within the topic «Methods and technologies of high-performance computing and processing of large data sets». State Registration Number is 0117U000924.

Testing: The main provisions of the work were reported and discussed at the 3rd All-Ukrainian Scientific and Practical Conference of Young Scientists and Students "Information Systems and Management Technologies".

Publications: The scientific provisions of the dissertation are published in the materials of 2 and 3 all-Ukrainian scientific-practical conferences of young scientists and students "Information systems and management technologies".

Keywords: AUGMENTED REALITY, DOMAIN-SPECIFIC LANGUAGE, MOBILE APPLICATION.