



IMPROVEMENT OF 3D GRAPHICS TECHNOLOGIES IN COMPUTER MODELING STUDIES

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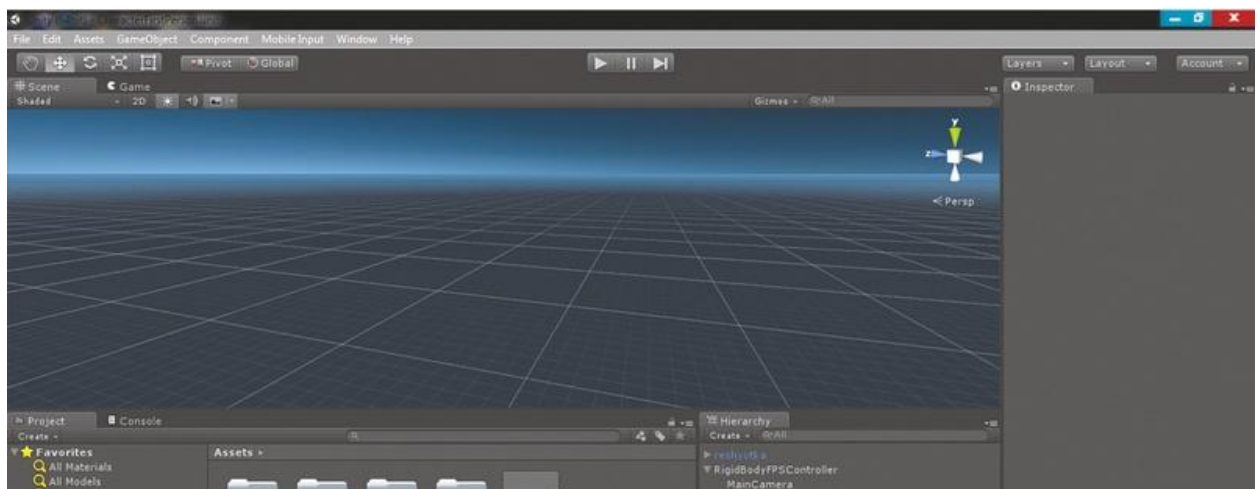
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ANNOTATION

This article is an article written on the improvement of 3D graphics technologies in computer modeling research.

Key words:programming languages, development of graphical programming languages, generation of three-dimensional graphics

Today, the technology of programming has also developed rapidly, and programmers use different programming languages. Different programming languages are used, depending on which area of application the program is being created. This, in turn, increases the demand for the development of many programming languages as well as software that implements them. There are also many types of programs. The development of graphical programming languages is considered to be a complex process in every. Therefore, for the production of graphics programs, separate software was created.





The graphics programs themselves will also look different, the reason is that there are different directions of computer graphics. They can be divided into general, two-and three-dimensional graphic orientations. Since the two dimensional chart is far from reality, three-dimensional graphics are currently used.

The formation of a three-dimensional graph should begin with the initial three-dimensional modeling. The concept of three-dimensional modeling means the creation of three-dimensional models of objects on the computer. Three-dimensional modeling, in the development of a brief 3D modeling, can be used from programming languages or software. It is more effective to develop 3D modeling with the use of ready-made software. It is through this that it is faster and easier to create objects. To the most common 3D-modeling software, Autodesk's 3ds MAX and Maya software can be used as an example. The possibilities of these software programs are very wide, through which it is possible to develop any 3D models.

After the implementation of 3D-modeling, it will be necessary to link it with the program and apply programming languages for the development of programs. C / C++, Java, Python, JavaScript, C # programming languages are in the sentence. To program ready-made 3D models, it is necessary to write programming codes on the transmitters. This requires a lot of programming codes. In order to optimize these works, a number of graphical software programs have been developed. The program "Unity 3D", developed in 2005, is from sentence.

Unity 3D " this is one of the most convenient software in the production of 3D software products as well as games. Ready-made 3D models can be downloaded in " Unity " and you can combine them by writing skript codes in C# or Javascript languages. It is much more convenient to work in "Unity 3D": the possibility of automatically copying the necessary materials for the created application into a single directory, skript codes can be combined into objects after writing them separately, the convenience of viewing the software product being prepared, and the main thing is that for many platforms there is an opportunity to compile the program.

In "Unity" we simply create an application and consider compiling it for different platforms. 1-the picture shows the general view of the working window Unity.



To create a program, we download the developed 3D models to "Unity" and paste it into an empty area (Figure 2). In our program, which we want to create, the house is built, so that there is an opportunity to travel. Accordingly, we called the name of the program "3D-Travel". Making a moving object for carrying out the trip, we write script codes for it in C# (Figure 3).

After the work on the program is completed, it can be compiled for the following platforms:

- For Linux, Windows, Mac personal computers;
- for iOS, Android and BlackBerry phones;
- For Windows Store and Windows Phone;
- WebGL view;
- Tizen, for Xbox;
- For PlayStation 3 and 4;
- For Samsung TV sets.

For many platforms and devices at the same time, the possibility of compiling qi-Lis is one of the best aspects of this "Unity". We will compile the above program for the platform we want to use (Figure 4).

In summary, at the moment, many people are using different tools, especially and more than their mobile phones. Naturally, the demand for software tools is also increasing. Since 2005-th year of the "Unity", which is used in the development of software products 1, 2, 3, 4, 5-versions have been developed. The possibilities of Unity, which is one of the effective software tools for developing 3D applications for various devices and platforms, are expected to be further developed in the future.

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