3D Hackathon Breakthrough Imaging Technologies

This is what one can call the project presented by the team of programmers from the Polytechnic University at the final stage of the competition 3D Hackathon. Media Center previously reported about the opening of the competition, nonetheless, let us remind you that hackathon is a kind of competition for programmers which enables concentrating all intellectual and technical resources necessary to implement a project in the shortest time. This competition is held in order to involve students of the Polytechnic University in professional activities in the sphere of IT and to let young developers communicate with specialists of the industry when tackling complicated problems.

Since interactive visualization on the Internet is not simply an innovative trend, but a necessary prerequisite for efficient communication on different levels, the main task of the programming team was creating a user-friendly imaging technology for students and staff of the Polytechnic University. This technology serves to facilitate and enhance the efficiency of the learning process: a student is likely to understand much better if shown a 3D model of a molecule, engineering structure or a BIM model of a task, rather than a 2D drawing accompanied by lengthy explanations.

V.M. Tuchkevich, a lecturer of the Graduate School of Engineering at SPbPU, team leader of the programmers from the Department of Intelligent Computer Technologies (SPbPU Institute of Computer Science and Technology), made a speech at the closing ceremony, "The goal of our team was to design a portal where every registered user could upload their models in the same way we post photos in social nets. The Autodesk Company, our strategic partner, is also working on a similar task, so we decided to join our efforts in order to implement it faster. The technology Autodesk View and Data API, which is quickly developing at the moment, was used as a "pearl" for this system".

Specialists from Autodesk contributed a lot to this project: they created a mechanism for translating models into a certain format, which helps to upload them to Autodesk cloud and to translate them to the portal after that.

"The task was really challenging, as it was difficult to upload and texture models of certain formats, but our team coped with this problem", commented R.M. Lunyov, leading lecturer at the Graduate School of Engineering. "It was a real hackathon: 48 hours of non-stop programming and coding".

3D Hackathon resulted in launching the service. It is not less important that it can be visualized with the help of various devices – from a mobile to a large screen monitor, and the latest web design technologies were used while coding the site.

It is noteworthy that when developing and testing the service there were used 3D models created by the students of the Institute of Civil Engineering and the Graduate School of Engineering of SPbPU. The participants received presents and certificates from Autodesk.

"3D Hackathon is an impressive event for our department", emphasized A.V. Shchukin, Deputy Director of the Department of Intelligent Computer Technologies. "Firstly, our students have obtained useful experience of participating in competitions designed in hackathon format. The fact that within a relatively short period of time the students mastered new technologies proves their high level of skills and competence. Secondly, engaging IT students of the Polytechnic University in events organized by the globally acknowledged company Autodesk helps to test new technologies and tools, and gain feedback from IT specialists".

However, 3D Hackathon is not only about a competition: within the nearest 48 days it is planned to improve the service, namely the quality of texture visualization, as well as to add additional tools for creating virtual reality.

SPbPU Media Center

Дата публикации: 2015.12.24