

3d model's advanced viewer for the web

¹José Emilio Valdés

¹**Universidad de las Ciencias Informáticas (UCI), Cuba**

Generation, processing and visualization of 3D or three-dimensional models has nowadays become a standard in terms of computer graphics design for many branches of the industry. The present work is about the development of a three-dimensional model display tool for “Centro de Tecnologías Interactivas” of University of Computer Sciences (UCI), video-game’s development branch, due the display option of the existing viewer doesn’t fulfil the center’s standards and the functionalities distributions. For the viewer’s development, was used the XP methodology, WebGL technology and Three.js, OrbitControl and Stas libraries. The proposed viewer, allow the load of files with extension OBJ, STL, FBX y glTF in the main Web browsers, with a speed between 50 and 60 FPS. Additionally, it offers functionalities for the manipulation of: scene’s background color, scene’s light, camera’s movement and the model’s animation. Also, it allows the model’s automatic rotation and the activation of the Wireframe filter.

