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Volume XXXVIII-5/W16

X3DOM AS CARRIER OF THE VIRTUAL HERITAGE

Y. Jung, J. Behr, and H. Graf
Fraunhofer Institut für Graphische Datenverarbeitung, Darmstadt, Germany

Keywords: 3D Internet, Declarative 3D in Web-Bowser, X3DOM, Virtual Heritage, Cultural Heritage, WebGL

Abstract. Virtual Museums (VM) are a new model of communication that aims at creating a personalized, immersive, and interactive way to enhance our understanding of the world around us. The term "VM" is a short-cut that comprehends various types of digital creations. One of the carriers for the communication of the virtual heritage at future internet level as de-facto standard is browser front-ends presenting the content and assets of museums. A major driving technology for the documentation and presentation of heritage driven media is real-time 3D content, thus imposing new strategies for a web inclusion. 3D content must become a first class web media that can be created, modified, and shared in the same way as text, images, audio and video are handled on the web right now. A new integration model based on a DOM integration into the web browsers' architecture opens up new possibilities for declarative 3 D content on the web and paves the way for new application scenarios for the virtual heritage at future internet level. With special regards to the X3DOM project as enabling technology for declarative 3D in HTML, this paper describes application scenarios and analyses its technological requirements for an efficient presentation and manipulation of virtual heritage assets on the web.

Conference Paper (PDF, 1010 KB)

Citation: Jung, Y., Behr, J., and Graf, H.: X3DOM AS CARRIER OF THE VIRTUAL HERITAGE, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XXXVIII-5/W16, 475-482, doi:10.5194/isprsarchives-XXXVIII-5-W16-475-2011, 2011.

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