*Open Standards for Real-Time 3D Communication*

| WEB3D AT SIGGRAPH | Fall 2011 |
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Over 500 people attended seven BOF and Tech Talk meetings, with many more visiting the Web3D exhibition booth on the show floor. News highlights for SIGGRAPH activities included:

- Augmented reality
- HTML5/DOM interoperability
- Medical standards progress
- Commercial progress
- Korea chapter meeting


Thank you for visiting the Web3D Consortium booth, attending our Tech Talk, or one of our Birds of a Feather at SIGGRAPH 2011. We showcased the broad impact of our X3D Standard for 3D graphics over the web. This year has been particularly exciting, our new technologies **x3dom, X3D/AR**, and **Declarative 3D** and other initiatives has given X3D more recognition. If you visited our booth, you saw Web3D and our partners; demonstrate the latest breakthrough technologies based on the X3D/VRML solutions showcasing cutting-edge 3D visualization capabilities including, x3dom and Augmented Reality across a broad range of engineering, medical and geospatial applications.

Programmers, animators, artists, and 3D graphics experts around the world are adopting X3D for its:

- Powerful optimized visualization of real time 3D graphics on the Web including Augmented and Mixed Reality.
- Easy-to-create interactive 3D content
- Robust interoperability and import/export formats
- Support of native 3D within an HTML5 page.

## Commercial Progress

Highlighted at the booth were Bitmanagement's Virtual worlds showing integrated X3D-Earth landscapes and complete city

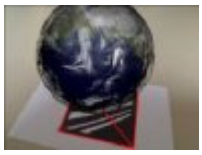
models. Textured **3D models of complete cities** constructed automatically and visualized with the high performing C++ BS Contact Geo VRML/X3D running on Google Android, Apple iOS and Mac, Windows, and Linux. Fraunhofer's Augmented Reality demonstration of virtual objects merged into real scenes using X3D-based applications were shown cross platforms including an iPhone. Their x3dom demonstrations proved that X3D can indeed run in a native browser without plug-ins.

x3dom was also presented at the the Web3D and the WebGL BoF. Web3D Consortium member Fraunhofer's JavaScript-based X3D player, fully integrated with HTML with no plug-ins currently supported in Chrome, Firefox and Safari browser. For more information see x3dom project and example implementations.

## HTML5/DOM Interoperability

Our X3D/HTML5 and Declarative 3D BoF discussed the efforts of the recently formed World Wide Web Consortium's (W3C) Declarative 3D for the Web Architecture Community Group chartered to examine the requirements, options, and use cases for an integration of interactive 3D graphics capabilities into the W3C technology stack. This effort has strategic importance for Web3D and indeed for all 3D graphics, since X3D is an interchange format for a wide variety of models. We intend to establish a solid foundation for X3D to properly support 3D graphics for the native Web page.

## Augmented Reality



The X3D AR BoF updated the community about the new Web3D AR working group and how X3D capabilities can be extended to support augmented reality (AR) and mixed reality (MR) applications. Current work in AR is focused on harmonizing proven capabilities into best practices for AR and 3D graphics, implementable by multiple X3D viewers and usable by content authors.

## Medical Standards Progress

The X3D Medical BoF discussed and demonstrated volume rendering capabilities for viewing 3D scans and objects using X3D; we also provided an update on our activities with the DICOM

standards organization in standardizing the presentation 3D medical images.

## Korea Chapter Meeting

At the Web3D Korea Chapter BoF the Korean group discussed their current initiatives on the X3D specification: E-Learning, X3D mobile functions and X3D for Augmented reality. Web3D recently started their China Chapter, where several initatives to expand the X3D specifications are being proposed.

Use of X3D systems has increased steadily throughout the world, delivering durable applications in industry, science, medicine, culture, entertainment, education and now Augmented Reality. Our ever popular Web3D Tech Talk showcased cutting-edge INNOVATIVE cross platform X3D and VRML content, speakers discussed their product development and deployment going from concept to the final product.


X3D (What is X3D) remains the most widely used standard for the implementation of high integrity and high capability 3D systems. For a list of recent projects using X3D see X3D Use Cases and X3D Adoption. Experience the power of the only ISO certified, royalty free open-standard 3D implementation for the Web. Use X3D visualization and animation software and services for several market sectors like, Geospatial, Medical, BIM, and Virtual Worlds. Explore X3D Earth integrated with cityscapes, X3D content playing on the iPhones. X3D ensures interoperability, longevity and ownership of your content.

Due to the large interest in X3D, there were several discussions, meetings and BoFs at SIGGRAPH. Slide sets on x3dom and Augmented Reality are available along with other SIGGRAPH 2011 slide sets. There has never been a better time to engage in the Web3D Consortium and it's standard X3D. We look forward to your participation.


### UPCOMING EVENTS

OGC Plenary Meeting – Boulder, CO - Sep 19-23, 2011
AR Standards Meeting – Basel, SW - Oct 23-25, 2011
W3C TPAC 2011 – Santa Clara, CA - Oct 31- Nov 3, 2011
ISO-JTC – San Diego, CA - Nov 7-10, 2011
SIGGRPAPH Asia 2011 – Hong Kong, China - Dec 11-15, 2011

### ADDITIONAL INFORMATION


**Case Studies**


**X3D & VRML**


**3D in HTML**


**Web3D Videos**

Great Projects by Our Members

The Most Widely Used Formats

X3DOM... 3D Without Plugins

X3D and VRML



*The Web3D Consortium is a member funded nonprofit international organization that develops and maintains the X3D standard – X3D is a 3D file format and runtime specification that is open, royalty free and ISO ratified. X3D is used for real-time, interactive and immersive 3D visualization of data across platforms and over networks.*