

## SIGGRAPH 2013 Update

Welcome and thank you for being part of the Web3D Consortium community! We are following up on your interest in X3D and the Web3D Consortium. As you saw for yourself at our booth, attending our Tech Talk or Birds of a Feathers at SIGGRAPH 2013, we have some really exciting news for those of you looking to innovate and deliver interactive 3D over the Web.



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
- Medical and Volume Rendering capabilities
- Tools for easy-to-create interactive 3D content
- Robust interoperability and import/export formats
- Support of native 3D within an HTML5 page
- Augmented Reality applications

If you visited our booth, you met Web3D Consortium members including Bitmanagement and Fraunhofer demonstrating the latest breakthrough technologies based on the X3D/VRML solutions. In the BOFs and Tech Talk, we showcased cutting-edge 3D visualization capabilities across a broad range of engineering, medical and geospatial applications. The value and impact of the open standards community is greater than ever! Find more details and resources in our newsletter below:

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### SIGGRAPH 2013 Booth Highlights

Highlighted at the booth were [Bitmanagement](#)'s new authoring tool, BS Content Studio (*in beta - contact Bitmanagement at [info@bitmanagement.de](mailto:info@bitmanagement.de) for access*), and the high performing BS Contact GeoVRML/X3D viewer interactively on the Web. [Fraunhofer](#)'s massive model demonstrations in HTML5/X3DOM showcased their binary compression and InstantHub server system for dynamic hybrid rendering.

### [SIGGRAPH 2013 Birds of a Feather Sessions](#)



Several Birds of Feathers (BoFs) discussed X3D's technical advancements and applications. Our X3DOM BoF discussed X3D's file format and run-time architecture for the Document Object Model (DOM). Web3D Consortium member [Fraunhofer](#) has developed an open source JavaScript-based player for X3D, running in any browser that supports HTML V5 and JavaScript-based WebGL rendering layer (e.g. Mozilla Firefox, Apple Safari and Google Chrome web browsers). X3DOM supports native, interactive X3D within an HTML5 web application. For more information see [X3DOM project and example implementations](#). X3DOM was also presented at the WebGL BoF.

X3DOM is being proposed to the [World Wide Web Consortium](#) (W3C) for the purpose of best integrating developer and user-friendly 3D graphics on the Web. 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. A W3C Declarative 3D Community Group was established in 2011 and continues to address these issues.

The [X3D CAD](#) BoF updated the community on the pipeline to X3D that preserves BREP structures by applying the X3D NURBS Component. Several routes from popular CAD tools were demonstrated to show how to get your CAD data to the web. At the [AR/MR BoF](#) we discussed out path to develop and extend X3D capabilities to support royalty-free Augmented Reality (AR) and Mixed Reality (MR) applications. At the Carto BoF several X3D virtual city applications were presented by members. The [X3D Medical BoF](#) discussed and demonstrated volume rendering capabilities to view 3D medical images using X3D on the Web as well as our activities with the [DICOM](#) standards organization to standardize 3D medical imaging. At the ISO SC24/SC29 Meetin on Sunday the Web3D Korea Chapter discussed their current Web3D specification initiatives: H-Anim motion data definition, X3D mobile function and X3D for Mixed Reality. At the [Web3D Town Hall](#), Web3D Consortium leaders described the many ongoing activities and member benefits, including goal planning for X3D 4.0.

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 performance, royalty free open-standard for 3D graphics on the Web. Use of X3D visualization and animation software and services is growing in several market sectors, notably Geospatial, Medical, BIM, and Virtual Worlds. From immersive CAVEs to iPhones, X3D ensures the interoperability, longevity and ownership of your content.

Due to the large interest in X3D, there were numerous discussions, meetings and BoFs at SIGGRAPH. The current list of [available presentations](#), including X3DOM and Tech Talk, are listed below. Additional presentation may be added. The first link is to the complete list.



## [Presentations](#)

This is the current list of available presentations. Additional presentations may be added. Check the first link for the complete list.

- [SIGGRAPH 2013](#) - List by presentation
- [AR BoF - Instant Augmented Reality](#)
- [AR BOF - Augmented and Mixed Reality](#)
- [CAD Export to the Web Using X3D](#)
- [Web3D Town Hall](#)
- [Volume Rendering and Medical Visualization Using X3D](#)

- [Tech Talk - 3D Client Software \(Bitmanagement\)](#)

## Working Groups

The Web3D Working Groups work to develop and specify of core technologies for the X3D Specifications, as well as seek to harmonize with other standards:

- The **Medical Working Group** is developing an open interoperable standard for the interactive 3D presentation of human anatomy based on input from a wide variety of imaging modalities.
- The **Augmented Reality (AR) Working Group** was formed to address the needs of fusing computer generated information with the real world. The Working Group focuses on utilizing and extending X3D capabilities to support Augmented Reality (AR) and Mixed Reality (MR).
- The **X3D CAD Working Group** is now entering its third generation of development effort. Following many years of steady progress by Web3D members, we have transitioned our efforts into the Web3D Public X3D Wiki. The open standards X3D CAD initiative will let customers access and repurpose complex 3D and technical data and seamlessly integrate it into other common desktop applications across the enterprise.
- The **X3D Earth Working Group** works to ensure that the X3D specification is capable of handling all manners of geospatial data representations. We interact with other standards development organizations (including the Open Geospatial Consortium and the World Wide Web Consortium) and vendors to employ open protocols and content standards to provide an interoperable framework for visualizing and interacting with geospatial data.
- The **Humanoid Animation (H-Anim) Working Group** develops standards to support representative human models incorporating open best practices of haptic and kinematic interfaces and a certain default skeleton pose in order to enable shared animations.



## Upcoming Events

- [The Graphical Web – OGC TC/PC Meeting](#). 23-27 Sept; Frascati, Italy.
- [W3C TPAC](#). 11-15 Nov; Shenzhen, China.
- AR Standards Meeting
- [Super Computing Conference](#). 17-22 Nov; Denver, CO. Virginia Tech will be showcasing X3D in their booth 3913
- [SIGGRAPH Asia](#)

## Press Releases

Recently issued press releases from Web3D Consortium and its members

- [Bitmanagement Launches BS Content Studio](#)
- [Web3D Members Showcase X3D Graphics at SIGGRAPH 2013](#)
- [Transforming 3D: Web3D2013 Conference celebrates innovative 3D](#)

## About Web3D Consortium

The Web3D Consortium is proud of the great value that participation brings to our members. Count on seeing us again at future SIGGRAPH conferences!

**Join!** The Web3D Consortium is a member funded international not-for-profit organization that is open to all participants. Members include large and small businesses, government agencies, academic institutions, students, and individual professionals who care about the future of the Web. The Consortium 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.



### ENGAGE!

For more information, please visit the following web pages:

- Learn about developing and deploying the latest [X3D solutions](#)
- Read our SIGGRAPH 2013 [Press Release](#) and [Flyer](#).
- [Join](#) the Web3D technology community and Working Groups to evolve and deliver 3D content, applications and platforms



- See presentations from [Web3D Tech Talk Session](#) and [Web3D 2013 Conference](#)
- Access and download the latest [X3D Resources and Tools](#)

## ADDITIONAL INFORMATION



[Case Studies](#)  
[Great Projects by Our Members](#)



[X3D & VRML](#)  
[The Most Widely Used Formats](#)



[3D in HTML](#)  
[X3DOM... 3D Without Plugins](#)



[Web3D Videos](#)  
[X3D and VRML](#)

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