# News Release

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## Web3D Consortium Announces X3D Compressed Binary Encoding Initiative

**Open, compact file format to enable rapid delivery and encryption of X3D-Based content; Working Group accepting key technology contributions from Sun Microsystems and others**

**August 2, 2004 – San Francisco** - The Web3D Consortium and Sun Microsystems, Inc. (NASDAQ:SUNW) today announced the formation of a working group to develop a binary file format encoding for X3D®, the open standard for communication of real-time 3D data, which is now in the final stages of ratification by the International Standards Organization (ISO). The X3D Binary Format working group is chartered to develop both an encoding of X3D to enable advanced compression of 3D data to shorten the transmission time of models and scenes across a network and a data encryption scheme to protect sensitive model information. The working group is open to any member of the Web3D Consortium and has already received significant contributions, including patented, advanced geometry compression technology from Sun. X3D's binary format will be an open, royalty-free specification that is expected to be completed in the first quarter of 2005.

"The X3D binary format will bring together many leading-edge technologies to create a state-of-the-art compression and encryption capability for all X3D content – further widening the applicability of this ISO standard," said Alan Hudson, president of Yumetech and chair of the X3D Binary Format Working Group. "We particularly welcome the royalty-free contribution of advanced compression technologies from Sun that will enable X3D to be one of the most compact and efficient 3D formats in the industry – and we encourage participation from any other company that would benefit from a widely available compressible 3D format."

The X3D Binary Format will be extensible through the use of a pluggable architecture to enable specialized compression techniques on a per-node or per-geometry type basis. This flexibility can be used to deploy highly efficient mesh compression regimes that are ideally suited to a particular model. Sun's contributed technology is one such advanced compression scheme. X3D can incorporate any appropriate technology, creating a unique opportunity for companies to deploy their compression technologies within an open standards framework. X3D's encryption scheme will leverage the XML encryption work at the World Wide Web Consortium (W3C) – further strengthening the ongoing liaison between the two standards bodies.

"Sun sees strong market potential in enabling X3D with an advanced compression technology – and that is why we have made the decision to contribute our sophisticated compression technology, royalty-free, to the X3D initiative," said Doug Twilleager, senior manager of Graphics & Media and chief

architect of game technologies at Sun Microsystems. "Web3D's open membership and proven standardization processes creates an ideal forum for building this important standard – we strongly encourage interested companies to join the working group and express their commercial needs for the binary format."

The addition of a compressed binary encoding for X3D will enable a unique combination of fast, secure communication of 3D data for a wide variety of visualization and web-service applications – while using an open ISO standard. Many of the vertical market-focused initiatives within the Web3D Consortium that use X3D as a foundation technology, such as the CAD Distillation Format (CDF) specification - an X3D-based format to distill the essential elements of complex CAD and architectural data for use throughout an enterprise, will automatically benefit from this expansion of X3D's capabilities.

"Contributors to the X3D Binary Format are already showing successful solutions to a challenging industry problem by following the Web3D Consortium's proven Request for Proposal (RFP) process. NPS is committed to contribute our open-source XML Schema Binary Compression (XSBC) towards this technical solution for X3D," stated Don Brutzman of the Naval Postgraduate School MOVES Institute. "Web3D also continues to work with the W3C Binary Characterization Working Group to develop broadly compatible compression for X3D and other XML languages."

**About X3D**

X3D forms the extensible technology foundation for the Consortium's market-focused standardization activities. X3D is a powerful open file format standard for 3D visual effects, behavioral modeling and interaction. X3D's XML-encoded scene graph enables 3D to be incorporated into web services architectures and distributed environments and facilitates moving 3D data between applications. X3D's language-neutral Scene Authoring Interface (SAI) enables real time 3D content and controls to be easily integrated into a broad range of web and non-web applications. Standalone X3D browsers are shipping today from leading 3D browser companies including CRC, Media Machines, and Yumetech.

**About the Web3D Consortium**

The Web3D Consortium is a member-funded industry consortium committed to the creation and deployment of open, royalty-free standards that enable the communication of real-time 3D across applications, networks, and XML web services. The Consortium works closely with the ISO, MPEG and W3C standardization bodies to maximize market opportunities for its membership. All Consortium members are empowered to participate and vote in Consortium working groups and are able to accelerate the delivery of their cutting-edge 3D platforms and applications through access to specification drafts and conformance tests before public deployment. More information on the Consortium and Consortium membership is available at www.web3d.org.

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