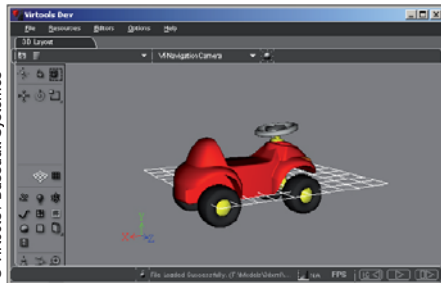


3D XML Virtools™ Plugin

From PLM to 3D Life-Like Experience



The adoption of 3D XML technology via a dedicated extension to Virtools' solutions is the first step towards providing a complete solution for recreating the end user experience on virtual products, with real-time interactive scenarios.

With this technology, 3D PLM assets can now be integrated simply into 'life-like' environments. This enables PLM customers to dramatically extend the benefits of using 3D technologies. The breadth of possible applications is huge. These include: simulation of product usage, ergonomic testing, creating the shopping experience, training scenarios, right through to branding, advertising and web marketing applications.

Note that Virtools 4 now has fully integrated 3D XML importing and exporting. For more information about an upgrade, please contact your sales representative.

Key Features

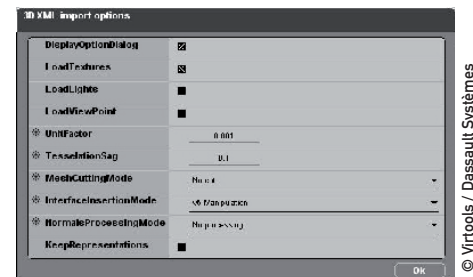
- 3D XML adoption in Virtools 4 Product line
- Integrate any kind of geometry: Exact, Tessellated and Compressed
- Keep control on import options: Lights/Camera/Textures/Materials...
- Easily tune and optimize data for realtime processing

The 3D XML format

3D XML is a universal, lightweight XML-based format that enables users to share live, accurate 3D data quickly and easily. 3D XML is suited for fast and efficient communication, and provides unique features, such as multi-representational 3D structure, and unmatched compression for complex, accurate geometry, enabling rapid file transmission and shorter load times. Dassault Systèmes uses the 3D XML format in its entire product line: CATIA, DELMIA, ENOVIA, SMARTTEAM and SolidWorks.

Get Full Control Over Import Options

To compensate for files that are not optimized for real-time 3D, Virtools 3DXML Plugin lets you configure and customize import settings to streamline your final 3D application.



Technical Requirements

- Virtools 4
- DirectX 9.0/Shader Model 2.0 compatible Graphics Card (for TwoSided Lighting Shader feature)
- A three button mouse (for V5 Manipulation Interface feature)

Read and Manipulate 3D XML Content Directly in Virtools 4

By generating a 3DXML file from one of those application, you can easily integrate them into the Virtools platform. Select your 3D XML files from the Resources > Import Menu and specify various options to process your 3D XML model for optimized real-time manipulations. Once the model has been imported, use it like any other 3D model for real-time processing: add behaviors, create scenarios, and deliver on the Web, on immersive displays, on Intranets, etc. The Virtools 3D XML Plugin comes with an intuitive "V5 inherited manipulation system" helping developers navigate efficiently in the 3D Scene.

When importing 3D XML files, a dialogue box linked to Virtools 4's Variable Manager enables you to define interactively what is imported and how:

- Textures
- Lights
- Viewpoints/Cameras
- Materials
- Meshes
- Scale

A decisive issue when importing 3D XML files is the capacity to import different 3D XML geometry representations: Exact Geometry, Tessellated Geometry and Compressed Tessellated Geometry. Dedicated options help you optimize the geometry details of your models in re-

gards to the constraints raised by the resulting application itself:

- TessellationSag: to fine-tune the tessellation of exact models.
- MeshCuttingMode: to access to more precise geometry and to bypass the Virtools vertex limitation.
- NormalProcessingMode: to process geometry from OpenGL visualization tools that use a specific display mode.

Modify Imported Data in the Schematic and VSL Manager

If needed, you can modify 3DXML parameters directly in Virtools 4's Schematic. To bypass interoperability issues involved with variable declarations, a parameter edition window enables you to get post-import access to the Variable Manager. Furthermore, to solve possible vertex normal errors that may occur during import, the 3D XML Plugin package includes three VSL action scripts, enabling you to easily reverse the face windings and/or the vertex normals of selected meshes in Virtools 4.

3D for ALL Vision

Dassault Systèmes is delivering on its long-term vision of opening up 3D to all users and communities, from content creators and professionals to consumers with new innovative solutions to Imagine, Share & Experience 3D.

Dassault Systèmes is committed to democratizing 3D XML as the ultimate universal language for connecting communities across any platform, technology, user environment or application.

This announcement of 3DXML support by Virtools is only the beginning of this journey to provide exciting user experiences on virtual product through real-time life-like scenarios.



© Barcelona Yacht Design Group

For more details about 3D XML Specification please refer to the documentation available on:
<http://www.3ds.com/products-solutions/3d-for-all/3d-xml/overview>