

Experience Players

Easily Provide "3D for All" Interactive Experiences

3D Life Player

3D Office Player

3D XE Player

Almost all new manufactured products today are created digitally. The PLM/DCC solutions are enabling engineers and designers to imagine new products and test their physical constraints through simulations. However, interactive experience of virtual products in context is a rather new approach focussing on the consumer/user experience rather than on the product itself, with great benefits for product innovation and marketing in terms of quality, ergonomics studies, product appeal, customer customisation, etc.

In the context of 3D for All strategy, the next step is to add interactivity not only to CAD products. Thus, the user will not be restricted to view the 3D products, he will also be able to interact with it, to "experience" it. The 3D Life Player, the 3D Office Player and the 3D XE Player provide easy access to attractive, highly interactive content created with the Virtools platform through internet and corporate intranets.

3D Life Player

User Friendly, Quick Install

One click is all that a user needs to do to install the 3D Life Player to experience rich, visually impressive interactivity. Installation is quick and additional components are automatically installed as and when needed. Once installed, the 3D Life Player updates itself automatically whenever updates are available, ensuring that the user can take advantage of the latest and greatest features available within Virtools technology.

High Quality Visuals With Rich Interactivity

The 3D Life Player plays content created with Virtools platform: not only are the high-quality graphics found in cutting-edge 3D



games now possible on the web, but the advanced behavioral interactivity found in best sellers can also be created. Game-like interactivity, the very best immersive experience, is here thanks to Virtools behavior

technology and support for stunning visual effects. Provide your users with real experiences in Multimedia/Marketing, Simulations and Entertainment simply and effectively over the web.

Integration In Existing Web Environments

Adding content for the 3D Life Player into standard web pages is a simple task. And you can enhance your content with JavaScript or VBScript interactivity by sending and receiving data between the HTML page and the content. Finally, HTML user interfaces and rich interactivity can be seamlessly merged.

Multiuser Server

The 3D Life Player is fully compatible with the Multiuser Server, which improves the user experience by enabling multiuser applications, loading content in stages, putting an end to the 'world wide wait' and starting the user experience immediately. Advanced personalized shared experiences become possible by dynamically streaming content depending on the user's interaction. A specific Web Publishing capability enables you to extend the 3D Life Player standard capabilities and to run your custom components.

Key Features

- Tiny download
- One click install
- Automatic updates
- Access to rich interactivity over the internet
- Easy integration into existing business logic
- Sound Card
- Playback-only version of Behavioral Engine
- Full Virtools Render Engine
- Rasterizers for key industry standards: DirectX and OpenGL
- Support for leading browsers (Firefox, Internet Explorer)
- Communication between Virtools content files and HTML pages via JavaScript and VBScript
- Short download times using compression in Virtools
- Support for streaming MP3 and Windows Audio (WMA) sound files
- Can be used with or without the Multiuser Server
- Mac support

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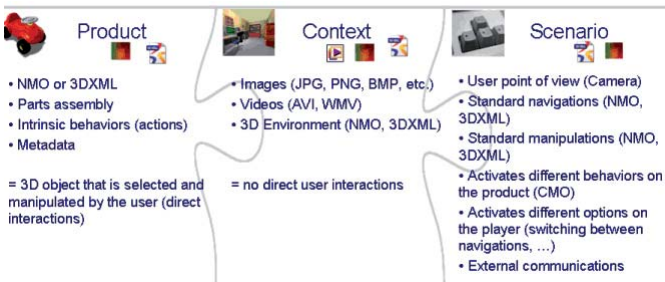
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Developed with the Product/Context/Scenario approach in mind, the 3D Office Player is a stand-alone player enabling users to share life-like experiences on virtual products created with 3D modeling software throughout your company. The 3D Office Player comes with a simple and intuitive user interface and easy-to-use navigation scenario. The player can also be embedded in applications such as Microsoft Office PowerPoint, Word, Excel or Internet Explorer.

Bring life-like Interactivity to 3D Models

The 3D Content Capture Tools that come with Virtools 4 enable developers to easily create interactivity from their 3D models. Thanks to the 3D XML Virtools Plugin, PLM users are now able to reuse their CAD models in the Virtools platform to create interactive 3D applications and make them accessible in the 3D Office Player for an intuitive product experience.



The PCS model

The 3D Office Player is based on a new paradigm in which interactive 3D is based on a Product-Context-Scenario approach. This concept has been created to offer a simplified vision of the 3D experience of a product in a given context, following a given scenario.

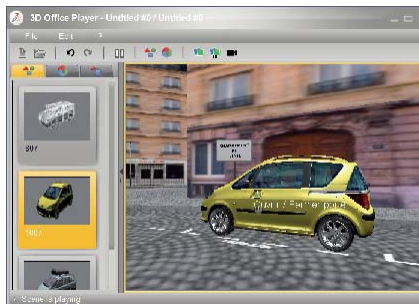
The PCS model used in the Virtools platform organizes the resources needed to create an interactive experience in three categories:

- **Product:** composed of various assets (3d geometry, textures, sound, animations or any other metadata) and potentially intrinsic behaviors. It is the 3D object that is selected by the user, the object that is the focal point for the user or the scenario. For example, it could be a car with behaviors attached to open the door, rotate the wheels...
- **Context:** the environment where the interactions take place, such as a simple image, video, or full 3D scene. It can be composed of many products with no focus, and the user does not have a direct interaction with the context.
- **Scenario:** relates to the user interactive experience. It always involves the user point of view (via the camera), and the user interaction with the Product, within the Context.

The user can load different Products/Contexts/Scenarios to create as many experiences as needed to evaluate the business

goals of the product being designed. PCS package can be prepared with Virtools 4 and saved within a 3D XML file that contains PCS Resources, which may include a single product, context or scenario, or, alternatively aggregate multiple products or contexts, albeit with only one scenario. The Products and Contexts are described in the product structure of the 3D XML file, while the Scenario is an NMO saved into the 3D XML file.

An Intuitive User Interface and a Flexible Architecture



The 3D Office Player is based on a custom intuitive GUI that allows for simpler interaction while improving usability and learning curve for users. An intuitive navigation and manipulation system is provided by default if there is no scenario in the loaded

file (cameras, mouse).

The left tab sheets (PCS ribbon) makes it possible to switch the product, context, or scenario defined in the .3dxml file loaded by double clicking on the desired thumbnail.

Share your Experience

The 3D Office Player has been designed to make it easier for developers to share rich interactive presentations throughout your company.



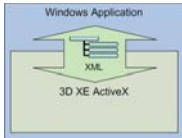
The 3D Office Player can also be integrated in Microsoft Office applications (PowerPoint, Word, Excel). Experiences can be exported to both pictures (at very high resolutions if necessary) and video to easily record and share experiences.

Key Features

- Natively read 3DXML files for seamless CAD interoperability
- Intuitive navigation system and predefined manipulation tools for accessible experience
- Experience exports (images, videos) for easily recording and sharing experiences
- Office integration for sharing rich interactive presentations

Based on the 3D Office Player, the 3D XE Player extends its capabilities for more specific and complex usages. The 3D XE Player enables Virtools developers to create richer, more customized applications. All features and building blocks of the 3D Office Player are also available to 3D XE Player developers.

The 3D XE Player Architecture



The 3D XE Player is based on an ActiveX architecture embedded in a custom interface. If you do not wish to develop a whole application on top of the ActiveX control, the stand-alone player will provide an application that is simple yet directly customizable from the composition defined in Virtools 4.

Customize your Application

The customizable UI feature allows for customization of the interface without recompiling the stand-alone player itself. Virtools developers will be able to update menus and toolbars and open dialogs through a simple XML configuration (created directly in the composition with the XML Building Blocks).

3D XE ActiveX control offers a complete API (Application Programming Interface) so that Visual Studio .NET developers can also embed it in their own custom applications in C#, VB or C++.

The 3D XE Player architecture allows the use of custom DLLs created with Virtools SDK for development of more advanced applications. Moreover, the 3D XE Player allows publishing Virtools compositions using the Behavior Libraries (Physics, AI, Multiuser).

Share your Content

The 3D Office Player provides a messaging and communication system using XML files to exchange data and events with the composition in play. Thus, all the experience's logic is defined in Virtools 4, and the player is only acting as a front-end.

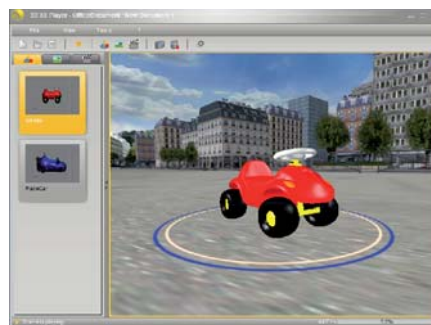
The player supports loading and saving of 3DXML files. These files can either define a single product or a PCS package. The 3D XE Player allows you to edit the scene (change positioning

of objects or materials, etc.) depending on your usage, and then save the modifications to either a 3D XML or NMO file for later use in the player, for maximum simplicity in sharing experiences.

The 3D XE ActiveX XML API allows .NET developers to create applications connected to any organization Information System.

The 3D XE Player also provides developers with the capability to protect your data with a password, making it possible to secure confidential data.

3D XE Player: the Core Component for your Vertical Specific Applications



The 3D XE Player open-ended architecture makes it possible to support a large variety of industry-specific interfaces and scenarios for 3D interactive user experience. Seamlessly develop and design shopping or driving experiences, design reviews, maintenance and training applications. Moreover, the 3D XE Player .NET system lets developers develop their

design reviews, maintenance and training applications. Moreover, the 3D XE Player .NET system lets developers develop their

Key Features

- Custom DLLs that can extend behaviors for specific usage
- XML API (Building blocks) to facilitate application integration (COM architecture)
- Extended saving capabilities (3DXML, NMO, XML files) to create and share experiences
- File protection to secure assets for exchange
- Availability of additional packs (Physics, AI, Multi-user) for specific uses
- Open architecture for integration with external information system

Technical Requirements



3D Life Player

3D Life Player PC

Minimum System Requirements

- Microsoft Windows (98, 98SE, ME, 2000, XP) Pentium II (or equivalent)
- Pentium III or equivalent
- 256 MB of RAM
- Internet Explorer (6.0+), Firefox (1.0+), Netscape (6.1+)
- Direct3D or OpenGL compatible 3D accelerator graphics card with at least 32 MB of RAM DirectX 9.0C

Recommended System

- Microsoft Windows® XP Professional Edition SP2
- Pentium III or equivalent
- 1GB of RAM
- Internet Explorer 6.0 or Firefox 1.5
- Monitor color display set to 32 bits (True Color)
- DirectX compatible Sound Card
- Direct3D or OpenGL compatible 3D graphics accelerator card with at least 256 MB of RAM

3D Life Player Mac

Minimum System Requirements

- MacOS X Panther (10.3.9)
- G3 Processor
- 3D graphic processor/accelerator card
- 256 MB of RAM
- Firefox 1.0, Netscape 7.0, Safari 1.0 beta, or Camino 0.7

Recommended System

- Mac OS X Tiger (10.4)
- G5 ou Intel® Core™2 Duo processor
- Firefox 1.5
- 1Go of RAM



3D XE Player



3D Office Player

Minimum System Requirements

- Microsoft Windows® 2000 SP4, Microsoft Windows® XP Professional Edition SP2.
- A 1 gigahertz (GHz) processor or equivalent.
- 256 MB of RAM.
- DirectX 9.0 capable accelerated graphic card with at least 64 MB RAM.
- DirectX 9.0C or more recent, with latest available graphic card drivers.
- Internet Explorer 6.0+

Recommended System

- Microsoft Windows® XP Professional Edition SP2.
- A 1.5 gigahertz (GHz) processor or faster.
- 1 Gigabyte (GB).
- DirectX 9.0 capable accelerated graphic card with at least 256 MB RAM.
- DirectX 9.0C or more recent, with latest available graphic card drivers.
- DirectX sound compatible soundcard.