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Walkinside 5.4 New Benefits

October 2009

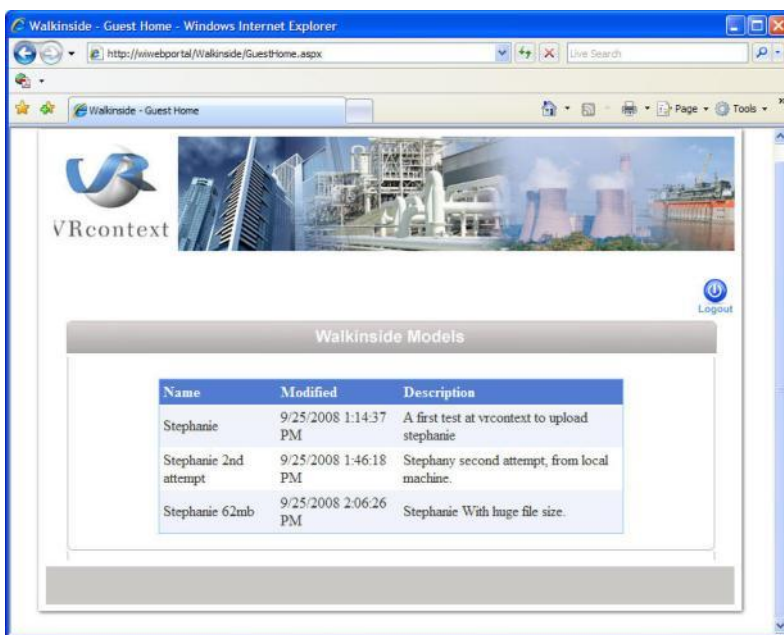


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Walkinside®—the next generation 3D Virtual Reality Asset Management software for Owner/Operators—delivers significant new benefits with the official Walkinside 5.4 release, including the WebServer option, expanded functionality, the SDK, and its enabled links to third party applications.

1 Walkinside 5.4 WebServer

Walkinside's WebServer option stores large and complex models, and associated data, attributes and CAD hierarchy in a central location and efficiently stream them over commonly available Internet bandwidth. This option supports version management & control and distribution & access entitlement to a large number of remote users. Walkinside WebServer uses proprietary compression and database technologies to optimize user experience while minimizing network traffic. The WebServer can easily be integrated in corporate web portals and customized.



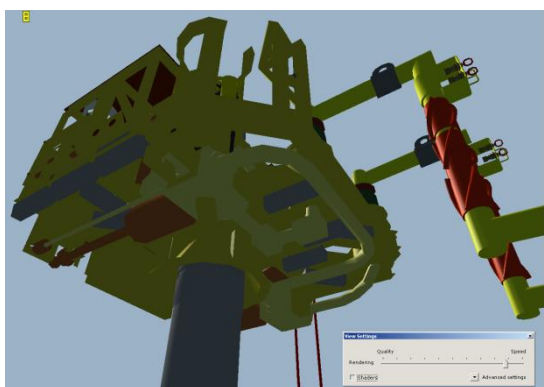


2 Expanded Functionality

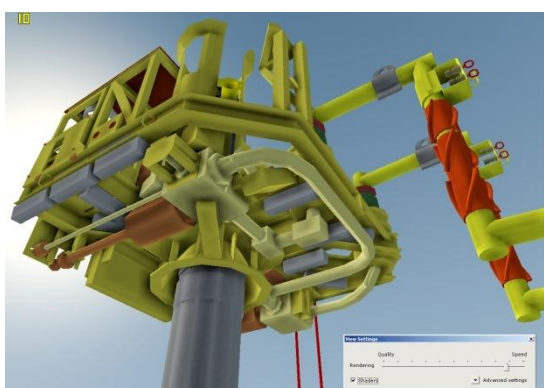
Walkinside 5.4 new functionality is provided as part of existing modules:

2.1 Advanced Render Style

A new improved rendering engine for improved model quality. Accessed by clicking the 'Advanced' mode, this option provides alternate representation styles in addition to the previously available 'Wireframe', 'Compatible' and 'Smooth' render styles.



Compatible mode



Advanced mode

'Near edge' shadow effects are available with the Advanced render style, increasing the photorealism of the model and facilitating the object and shape recognition in complex assemblies and/or in darker portions of the Walkinside model.

Advanced Graphics is based on Ambient Occlusion technology.

The Advanced render style requires a graphics card with Shader Model 2.0 support.



2.2 Static & Dynamic Skybox

Walkinside's 5.4 Static Skybox supports the selection of static pictures to bring the model in context with clouds, topography, and atmospheric conditions.



Static Skybox

The Dynamic Skybox supports moving sky, with cloudiness control, wind speed, sun position with night, sunrise and sunset effect via changing light intensity and colors.



Dynamic Skybox

The Dynamic Skybox requires a graphics card with Shader Model 2.0 support.

2.3 Advanced View settings

Fog effect can be introduced in the model to increase the realism (blue color on distant objects), with user-adjustable contrast, brightness, gamma and de-saturation.

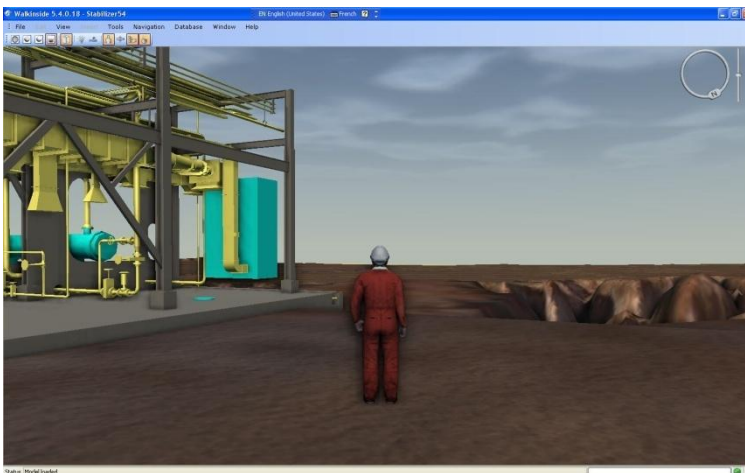
De-saturation also allows model visualization with grayscale/black and white.



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2.4 Terrain Height Map visualization

This new functionality includes height maps for terrain visualization with 3-dimensional effects.



Heightmap is produced by importing two .tga image files, one containing the .tga black and white file defining the height of the terrain, the other .tga file defining the texture.

The surrounding terrain data around a Walkinside model can be visualized without first requiring data import in the original CAD model files.

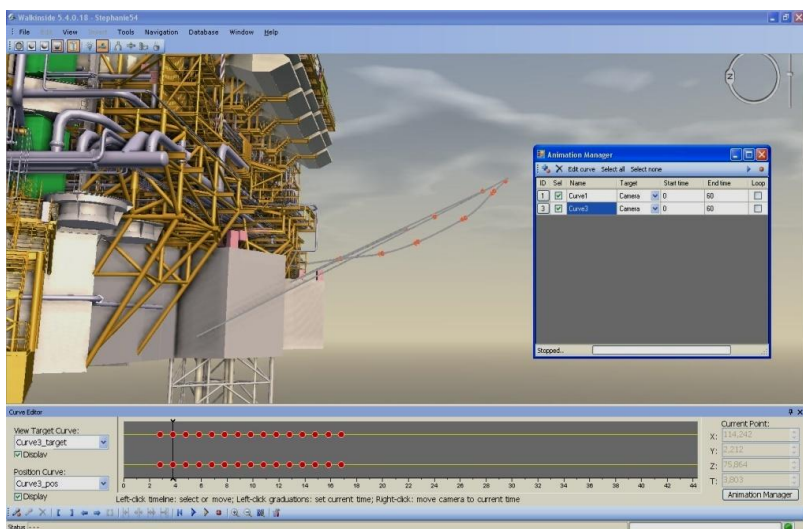
Gravity and collision are also supported on this terrain surface, enabling realistic avatar movement on the topography as well as in the model.



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2.5 Curve editor, Animation Manager & Video Recording

For on-the-fly recording of movies from a Walkinside model, a new video recording functionality is now provided.



The Curve Editor allows the design and storage of multiple 3D curves simulating field operator paths in the model to prepare for, schedule and monitor on-site activities, such as inspection, maintenance, training and safety reviews for pre-established work flows and procedures. Such paths can be played back in the form of an animated fly-through through the model.

Using the Animation Manager, those curves can be assigned to different objects as to control the virtual camera motion and angle, the avatar position, Walkinside sub-models movements, and to change the position of the sun and of the ocean level. Each curve is attached to a timing function, so events can be scheduled in function of time and established as standards against which the operator can monitor performance and rate trainees and actual field personnel.

From the animation manager, the video recording function can be activated to produce a movie at various resolutions, using standard 'codecs' on the user's PC.

A new feature in the video recording is the Motion Blur effect that increases the realism of the movie.

The Curve Editor, Animation Manager and Video Recording are all included in the Walkinside Accessibility Review Module.

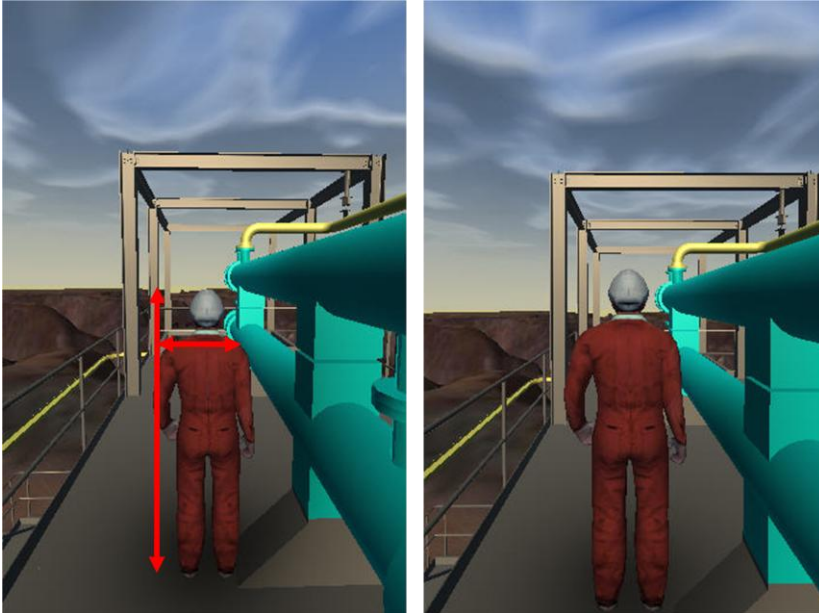
Have a look at a video that was created using the Curve Editor and the Animation Manager:

www.youtube.com/watch?v=uHwnMGIL7XI



2.6 Resizable avatar

The avatar dimensions can be changed to better support accessibility reviews and simulate actual operational constraints.



2.7 Z+F LFM Server 3.94

Support for laser scan point cloud visualization inside the Walkside Viewer enabling fast and accurate visualization of extremely large point data in 3d with the added benefit of been able to merge it with a 3d CAD model.





2.8 Functional Reference Tree

The Functional Reference Tree provides access to a CAD Hierarchy customization option to support different user needs. Walkinside users in Operations & Maintenance now can conveniently set, store and access their own hierarchy and object groupings that are particularly relevant to their respective functions and requirements.



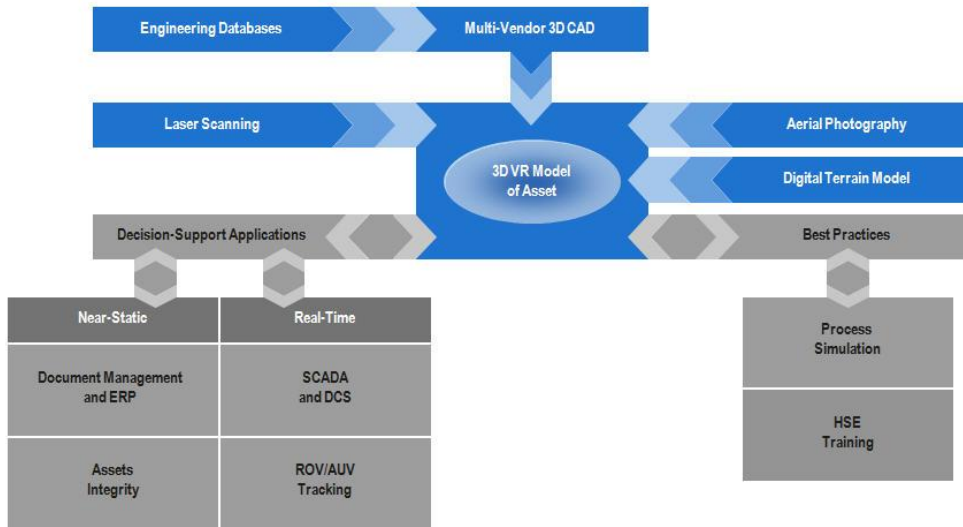
From the standard hierarchy from the CAD model, the Functional Reference Tree supports the creation of a new functional hierarchy based on object selection in the 3D model or in the native CAD hierarchy allowing the user to reorder and rename the hierarchy nodes for their specific needs.

The Functional Reference Tree functionality is included in the Walkinside Project Review Module.



3 Walkinside 5.4 SDK

With Walkinside 5.4, VRcontext introduces the first Software Development Kit for the new Walkinside 5 architecture, allowing system integrators, partners and customers to develop interfaces with 3rd party applications and to customize the GUI and converters.



Blue = Standard Walkinside
Grey = SDK based interfaces/applications



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4 Links to Third Party applications

SCADA: PI System™ (OSIsoft)

Walkinside is interfaced with a SCADA system (PI from OSIsoft) at a Petrobras refinery showing two-way interaction with the 3D model.

www.vrcontext.com/movies2/Walkinside-SCADA-Petrobras.zip (44MB)

CFD: FLACS® (GexCon)

CFD (Computational Fluid Dynamics) simulation of a gas leak is visualized in a Walkinside 3D model of a Petrobras refinery.

www.vrcontext.com/movies2/Walkinside-CFD-FLACS-Petrobras.zip (25MB)

OTS: Process Studio® (Protomation)

Operator Training Simulator (OTS) for employee assessment, training and certification.

The same level of integration can be achieved with Invensys, Honeywell, Yokogawa, RSI-Simcom and other OTS applications.

www.vrcontext.com/movies2/Walkinside-Protomation.zip (10MB)

Operational Dashboard: BabelFish™ (ISS Group)

BabelFish is a real-time dashboard interfaced with Walkinside, facilitating data access and representation from field equipment, process control systems and management systems.

www.vrcontext.com/movies2/Walkinside-ISS-BabelFish.zip (19MB)

Life Cycle Engineering System: COMOS (Siemens)

Comos used together with Walkinside makes it possible to implement comprehensive Basic and Detail Engineering processes in 3D through all the Life Cycle phases of an industrial plant or unit.

www.vrcontext.com/movies2/Walkinside-Comos.zip (14MB)

For more information, please send us an email at info@vrcontext.com, or visit our Web site: www.vrcontext.com.