



VRcontext

## Frequently Asked Questions

- *How do you compare Walkinside with other VR software?*

One of the main differentiators of Walkinside is the support of **full** collision-detection processing in real time. This means that the software supports the first-person mode (described in next FAQ) from the outset, allowing you to feel much more immersed in the VR world than with any other VR software application. Walkinside supports massive model walk-throughs, as well as models containing enormous amounts of curved surfaces, like pipes and elbows. Also, we always concentrate on ease of use during software development.

- *Why do I need a first-person mode VR software?*

First-person is a navigation mode in which the camera is positioned in the eyes of an animated, human-like avatar. Having a living actor at your fingertips, you feel more immersed in the VR world. The avatar moves about like a real human, being blocked by walls or obstacles, climbing stairs or ladders, and stopping where there is not space enough to pass through an opening. Therefore, the scale factor of visited areas is well understood, the stress of major disaster conditions is realistically reproduced, and conducted tasks are better understood and memorized.

- *Why do I need collision detection?*

A real-time walk-through with full collision detection and gravity is the only way to visit a 3D world as if you were really in it. You can try to go everywhere, without restrictions. You are limited by the size of a human body and its physical/biological constraints. You cannot jump 10 meters high or go through a hole 10 cm wide. The software has a command letting you go to areas where normally only ghosts can go, but in this mode, you will not benefit from the realistic immersion characteristics.

- *Why is Walkinside so fast?*

Our product line is based on dynamic tessellation for curved surfaces, automatic object rejection for far-away objects, patented 3D graphics technology, and a patented collision detection system. These features allow you to process extremely complex 3D models very rapidly. You do not have to accept a lower level of detail to accelerate processing, nor is there any tedious pre-processing optimization.

- *Why can I not compare the power of Walkinside with other VR software?*

Walkinside has higher levels of unique functionality: full collision detection, first-person mode, strong support for curved objects, and no model size limit. If you load huge models, the software will run slower, depending on your graphics card capabilities, but it will never fail, as frequently occurs with other software. A typical Walkinside file contains several hundred millions of equivalent static polygons.

- *I do not have a CAD system. What is the path to build my VR plant model?*

You do not need to own a CAD system to use our software. The answer to your specific situation is addressed in one of the next FAQs.

- *I have no CAD team, no CAD manager, and no CAD workstation. Can I use Walkinside?*

You can have subcontractors create 3D CAD models of your projects. When you get your 3D model, one of our value-added resellers will convert your model for a very low fee. Once you have the 3D model, you can use it for subsequent work or with other products, even from another company.

- *Can I use Walkinside over my network? How about over the Internet?*



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Walkinside is TCP/IP network compatible, whether you want to use it on your LAN or over the Internet (as long as you do not use a firewall). Walkinside allows you to collaborate within the same VR model across the network or Internet. Each user sees the other ones.

- *How large can my model be?*

There is no file format size limitation. Our software was built from scratch to handle massive models, as big as a nuclear power plant or the largest offshore field. Wide outdoors areas (over 400 km<sup>2</sup>) are supported as well.

- *How can I create VR models from existing facilities?*

There are many ways to create 3D models from existing facilities—using physical on-site measurements, photogrammetry, or laser scanning. Laser scanning is very adequate and entails a short delivery delay.

- *Do I need a specific VR interface to use Walkinside?*

You need a 1-GHz or higher-frequency CPU, at least 512 MB of RAM, a mouse with two buttons, and a graphics card supporting OpenGL. If your application requires a very high level of immersion, you can use a helmet with a head movement tracking system. The tracking system will replace the mouse, and the helmet will hide the real world, allowing you to focus only on the VR scene and action. Very specific applications can also use position tracking systems (for projects with control rooms, showrooms, or any room limited in size) or a data glove for object manipulation. For clearance evaluation, a helmet with stereoscopic lenses can be used without any changes to software or settings. Stereoscopic glasses are also an inexpensive way to look at your 3D model in a completely new way.

- *Can I use an inexpensive 3D games graphics card to run your software?*

Any recent 3D graphics card can be used with our software, whatever the price or the memory size, but we recommend using a graphics card with an embedded transformation and lighting (T&L) engine. Walkinside is optimized for the NVIDIA Quadro® and GeForce® graphics chips. Any recent professional OpenGL graphics card is suitable.