Experience Real-Time Collaborative 3D VR

Virtalis’ Visionary Render software allows users to access and experience a real-time, interactive and immersive Virtual Reality (VR) environment created from large 3D datasets. Users can work alone, in small groups, or collaborate with distant colleagues in a common virtual environment to perform detailed design reviews, rehearse in-depth training tasks, validate maintenance procedures or verify assembly and manufacturing processes. Making Virtual a Reality enhances working practices and builds on investments already made in digital design assets and people.

Maximise the Value of your CAD Assets

Visionary Render has been designed as a Commercial Off the Shelf (COTS) tool solely with the 3D environment in mind. It enables CAD users to easily transfer source data from multiple CAD packages into an immersive 3D visualisation experience. Used in-house by Virtalis for application developments for more than 5 years, Visionary Render can render large, complex VR models in real-time stereoscopic 3D with high update rates.

Visionary Render allows users to create dynamic, interactive VR environments and simulations that can be deployed on immersive visualisation systems and distributed to third parties. It is a collaborative, sharable sandbox bringing true 3D experimentation throughout the product lifecycle and to all levels of business.

KEY FEATURES:

- Interactive and immersive 3D / VR capability
- Unique 3D semi-transparent User Interface
- Collaborate in a single VR environment – Globally
- Handle and manage huge and complex CAD data sources seamlessly
- Direct importing of data
- Reduce load times significantly
- Cluster aware for increased performance
- Collision detection
**Features and Capabilities**

**Visualise in interactive and immersive 3D**
- Custom developed for immersive virtual environments
- Feature-rich material system
- Dynamic lighting and real-time shadows
- Dynamic previews of parts
- Advanced scene management allows display of multiple views with different positions and scale
- High performance rendering supporting 120Hz Stereo3D
- Works with current VR systems, incl Virtalis ActiveWorks

**3D GUI**
- Reinforces the 3D experience
- Semi-transparent to maximise the visible area for a complete 3D desktop
- Customisable immersive interfaces for end-user applications
- Desktop, Stereo & Immersive modes supported via a single, common interface

**Collaborate**
- Link multiple, disparate VR systems globally
- Supports tracked avatars for enhanced collaboration

**Support for huge models**
- 64 bit compatibility for datasets 4GB and beyond
- GUI allows fast browsing of models over 1 million parts
- Model size limited only by system and graphics memory
- Future-proofed as technology progresses

**Dynamic sections & dynamics**
- Add multiple cut planes at any position/orientation
- Section the whole model or just sub-trees
- Provide collision detection on all objects in the scene
- Add constraints and behaviours

**Scripting & animation**
- Uses LUA scripting
- Commonly used scripts built in
- Create animation sequences and movies

**Handles range of data sources**
- Wide range of CAD sources can be imported directly:
  - Creo Parametric (Pro/E)
  - SolidWorks
  - Inventor
  - SolidEdge
  - ParaSolid
  - Tribon
  - Foran
  - PDMS
  - UG/NX
  - 3DS Max
  - Catia
  - IGES
  - 3D PDF
  - Step
  - DVMockUp
  - and more...
- Maintain naming conventions and product structure
- Maintain product metadata, attributes or PMI
- Guaranteed to support latest CAD software releases
- Supports positional/spatial sound
- Works with Virtalis ActiveView picture-in-picture software

**Cluster aware**
- Use multiple PCs for massively increased performance
- Supports multi-visual-channels, incl Virtalis ActiveCube
- Flexible GUI positioning

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**Visionary Render Licences and Modules**

**Development Platform (DV)**
- Import 3D data
- Build comprehensive virtual environments and simulations
- Create scripts and animation sequences
- Support for collaboration
- Publish applications as runtimes

**Review (RV)**
- Full client version
- Support for cluster architectures and networked collaboration
- Support for multi-channel environments
- Load and manipulate data created by DV
- Use scripts and animation sequences created using DV

**Immersive Option**
- For immersive VR peripheral devices
- Allows 1:1 scale interaction with virtual mockups

**Physics/Dynamics Plug-in**
- For rigid body dynamics and non-penetrating collisions

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