



software

tOG Virtual Reality Overview



RT Software tOG VR

Real-time 2.5d and 3d virtual reality studios.

Superior integration, cost effectiveness and ease of use.



SPORTS



NEWS



ELECTIONS



ENTERTAINMENT



The virtual reality challenge

Virtual reality sets are increasingly being used to enhance the audience experience and decrease production costs. The challenge though is to achieve realism: a virtual reality set needs to be convincing to the audience.

This means that the VR solution needs to be powerful enough to manage the most complex design with no detrimental effects to the video. With no glitches as the camera and real objects move, or as the director cuts between cameras.

It also needs to be easy to use for both the graphics designer and the production operators: from the initial 3d template design tools to the interaction with real-time 3d graphics live on-air.

But there's numerous suppliers of real-time virtual reality studio solutions. You need the solution that delivers the graphics you require now, the flexibility to deliver bespoke graphics and the ability to meet your virtual reality graphics requirements in the future.

The RT Software tOG VR answer

VR and Virtual Studios are a core competency for RT Software, and we can pass the technology and capabilities on to you. This is based on more than 15 years' experience of elections, Eurovision's and other specials, at probably the world's most demanding broadcaster.

RT software has developed a family of virtual reality products (tOG 3d Classic with MixTV, 2.5D and 3d plug-ins) all with the tOG 3d engine at their heart. This is the real-time 3d graphics engine used by leading broadcasters for sports, news, elections and entertainment graphics.

tOG 3d Virtual Reality is now being used to provide the most realistic and easy to use virtual reality graphics on the market for the big names in the business who accept only the best. The tOG-Virtual family of products offers a scalable and flexible real-time virtual reality solution, at an attractive price point, that you can rely on to have audiences believing the impossible.

Reasons to select tOG VR

The processing power of tOG 3d is what sets it apart. With unrivalled geometry handling, this solution has technically out-performed its rivals in tests performed by our customers in terms of continuity of virtual set video as objects move and cameras are cut between.

Then there is the design capability. We haven't focussed our energy on developing 3d design tools: instead we integrate with the leading 3d design tools in the market such as Max and Maya. Templates from these can be converted to real-time 3d graphics using our tOG designer.

All this is provided in one box, together with all the functionality you need as standard (not lots of additional plug-ins at extra cost) and it is one solution family that can scale. RT Software is flexible enough to design specials to meet your bespoke virtual studio requirements. We even offer short-term rentals of complete systems with customer set-designs for your one-off big events.

Applications

-  **Presenter interaction with 3d graphics**
Deliver exciting analysis and coverage with real-time 3d graphics in the hands of the presenter.
-  **Pseudo virtual reality studios**
A single camera VR solution with all the power of tOG, that delivers VR at an attractive price point.
-  **Full freedom of movement, multi-camera VR**
Integrate with any open API camera tracking technology to deliver astounding VR sets.

Business Benefits

-  **Increased Audience Experience**
Unleash your creativity and implement sets only previously possible in the imagination of your designers.
-  **Decreased production costs**
Change sets with negligible cost compared to conventional physical sets and using smaller studios.
-  **Scalable solution with low cost entry point**
Start with a low-cost entry, scale-up to the full solution and even repurpose for other real-time 3d graphics.

tOG VR virtual reality family

 The tOG VR family of products has been professionally designed by a team of real-time 3d graphics experts. Whether you want 2D "bill boarding", real-time 3d graphics in the hands of presenters, cost-effective 2.5D with a single fixed camera or full freedom of movement multi-camera 3d virtual reality, there's a tOG VR product for you. And as they are all built on the tOG 3d engine, you can upgrade as your business needs change. What's more, they integrate with all the leading third party VR devices on the market, so you'll have no problem integrating it into the wider system.



tOG VR and Mix TV

Welcome to the tOG VR Virtual Reality family of products...

Top End 3d Graphics - with tOG VR you have a solution that includes DVE moves, video in scene as a dynamic texture, automated template driven bottom third text, automated "What's next" text, clock, ticker / crawl, full screen maps and charts and much more.

Cost-effective single camera VR - import real-time single camera tracking data and use in conjunction with your VR model of the set to present a convincing yet cost effective virtual reality studio. Make small studios seem like large ones with crane-like graphics effects.

Augmented Reality - add the Mix TV plug-in to put live 3d graphics into a real set, allowing full freedom of movement and zooming of the camera, and even allowing the talent to interact with the live graphic. Supports animation, live results and video.



tOG VR 2.5d

All the functionality of the tOG VR product, plus...

2D "Bill boarding" - if all you need is to have great 2D graphics keyed onto the background of a presenter using a fixed position camera, then we've got news for you: Our standard tOG VR product includes a chroma keyer at no extra charge that delivers just that.

High rendering power - include live video in the virtual studio scene, with multiple MPEGs support. Put maps on the floor, 3d extrusions, charts, histograms, smooth transitions from graphic to graphic and see the power of tOG 3d with the best geometries in the market.

Advanced VR tools - use the built in lens calibration tool to ensure that the virtual camera mimics exactly the behaviour and imperfections of the studio lens. Accurately align your virtual computer generated world with the real world using our GAP tool.



tOG VR 3d

All the functionality of tOG VR 2.5D product, plus...

Multi-camera VR - install a tOG VR rendering PC for each camera, integrated camera tracking technology with your virtual model to provide a seamless sense of a real environment, cutting at will between cameras with total continuity of virtual studio presentation.

Full freedom of movement - use any open API camera tracking technology with your virtual reality studio to provide great effects and impact. Includes support for Radamec Free-D camera tracking system, Venten Quatro, Blue-i and MoSys tracks and cranes.

Design Services - design your 3d graphics using leading third party software like Max and Maya, then use our tOG 3d designer to convert them into real-time 3d templates. We can train you to do this, or for one-off specials you may prefer us or one of our network of freelancers to help.

About RT Software

-  **Provides real-time 3d graphics solutions** for all on air requirements including VR studios, sports, news, elections, entertainment and academia.
-  **Founded in 2004** and privately funded, its award winning founders had spent many years working for the Computer Graphics department at the BBC.
-  **Based in London** in the United Kingdom. The company operates globally through a network of trained value added resellers.

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-  **Through one of our local resellers**
Our resellers are tOG 3d trained to provide you with local support. Please see the partners page on our web site.