software

Technical Specifications: tOG Playout

tOG Playout

TEXT AND TICKERS

SPORTS INSERTION

**VIRTUAL STUDIOS**

AUGMENTED REALITY

tOG Playout - Control for all RT Software tOG products

Playout control is an important aspect of broadcast graphic transmission. There are three main requirements when playing out graphics. One is the ability to quickly call up an existing template, change relevant data, and play it out. The second is to be able to build sequences that tell a story of some form and either play them out or save them to disk for recall at a later date. The third is the ability to preview and check graphics prior to TX (Preview). tOG Playout comprises a set of comprehensive tools that facilitates these operations.

tOG Playout Control is RT Software's main playout control system. It allows users to select existing graphics for playout, control playout order and add on the spot data using auto generated or custom interfaces. Users may create instances from templates and assign page numbers for instant recall, select whether playout is sent to video for direct to air playout or layoff to disk for NLE ingest or 3rd party clip store playout.

KEY FEATURES

- Intelligent, intuitive interface for playout control
- Seamless transition logic
- Single Page playout
- Multi page sequence with dynamic reordering
- Auto-generated interfaces for user data entry
- Customisable interfaces with support for plug-ins
- Linear Keyer
- Matte keyer
- Live final frame preview on one platform
- 1 - n, connections for multi format playout
- n - 1 connection for multi input and control

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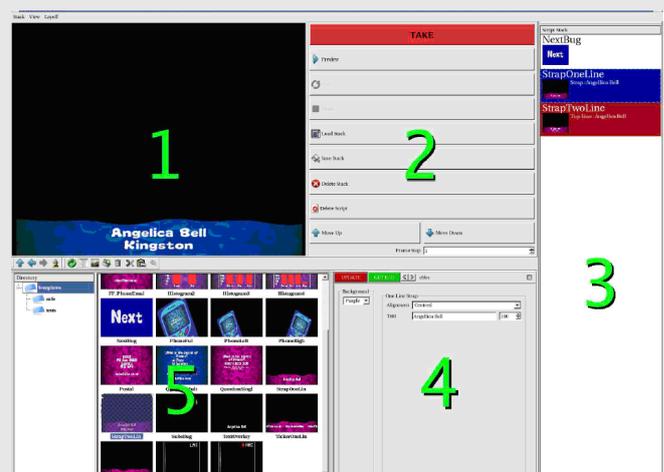
INTERFACE & PREVIEW

tOG Playout Control provides and intuitive and easy-to-use interface for the control of real-time 3d graphics. Manipulate pages and templates, and preview what is about to go on-air.

Interface Components
tOG Playout consists of:

• A render window for live or preview display,.

• A list of existing templates and pages.

• A list of pre-stored sequences.

• A stack containing the current graphic/ sequence.

• An editor stack for data entry /edit.

• A playout control panel.

• A method list for the currently selected graphic.

• A data/value list for the currently selected graphic.

Pages and Templates
All these are available within one window for quick and easy access. Pages and templates may be dragged onto the stack or onto the render window for instant loading. They immediately appear in the stack and populate the relevant data editors. An operator can select individual templates and pages using the relevant page number.

Preview
In a live studio environment, one of the most important aspects is to be able to see what is about to go on air. tOG Playout has the ability to preview the next graphic while tie current one air from the same machine. Preview is final frame and is available as VGA, or with additional hardware, SDI.

STACKS

The ability to put together graphic sequences is one of tOG Playout's most powerful features. Whether you are controlling an election program, a sports show or a News bulletin, you know which graphics you will need to show, but not necessarily the order they will be played out in. Playout gives you the flexibility required.

Create Graphic Sequences
The Stack allows an operator to put together a series of graphics, or graphic sequence, assign data values and save it out for future recall. This stack can then easily be replayed in order as required - saving significant time during a live event.

Easily Rearrange Stack
However, when an operator does recall a stack, maybe the story has changed - for all sorts of reasons. To solve this problem an operator can simply rearrange the order in the stack - even while the stack is being played to air.

Replay Graphics
Replay the same graphic again, with tOG 3d's transition logic ensuring that graphics animate from one to the next seamlessly.

Transition Logic
With tOG's support for graphic and state based transitions, the smooth movement from one page to the next is assured and is fully automated for the operator.

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DATA EDITORS

The real-time 3d graphics generated by tOG 3d can be modified according to the data associated with them. tOG Playout Control provides three methods for data entry.

1. Manual Selection
Select which values to export within tOG Edit. These will automatically appear in the data/value list on the playout interface. This is the simplest data entry method.

2. Auto Template Generated
Auto generate an interface based on the methods and inputs defined in the template itself. This is done within tOG Edit when the template is created. Fine tune this and decide what methods appear.

3. Custom Interface
Build a custom interface using a simple GUI builder. Create simple edit fields, lists buttons etc and hook these up to data inputs in a graphic. Add c++ code to turn them into fully featured, intelligent plug in interfaces.

KEYING

tOG 3d has a selection of keying technologies available to assist graphic playout.

Linear Keyer
For simple overlays use the built-in onboard linear keyer on the selected video card. This provides both audio pass through and watchdog failsafe fall over when video I/O is contained on the same board so that video transmission can be guaranteed even in the event of complete system failure.

Software Matting Keyer

For Colour Separation Overlay (CSO), tOG 3D has a software based matting keyer for green or blue screen keying. This is a high resolution keyer that has the additional advantage over hardware keyers of being able to do both background and foreground keying concurrently.

RENDER CONTROL

Single machine control is only one playout strategy. Multi tOG Playout Control systems may be connected by a network in a 1-n or n-1 arrangement.

Control Multiple tOG Live outputs from one tOG Playout
Use Playout to control many renderers. These would normally be tOG Live machines. This is useful if you require multi format output in HD, SD and web or if you are running multi camera VR.

Control one tOG Live Playout from Multiple

tOG Playout Control systems
Conversely, connect multiple playout controllers to a single render system to allow multi input and control. This is useful in a Newsroom where different sections may feed data to different graphics in an asynchronous manner.

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HARDWARE SPECIFICATION

tOG-3D Edit is a software solution operating on industry standard IT hardware and operating systems, with leading video graphics cards.

Workstations
RT Software only qualifies hardware that is proven to meet the exacting demands of live broadcast for reliability, durability and performance.

Desktop/side and rack mount systems are offered from:
Hewlett Packard.
Dell.
Super Micro.

Laptops are offered from:
Hewlett Packard.
Dell.

Graphics Sub-System
tOG solutions harness the power of Quadro GPUs made by nVidia, the world leader in visual computing technology.

Video Sub-System
To ensure the quality of tOG rendered graphics are maintained all the way to video output, tOG solutions use the highest quality video input and output cards from DVS and nVidia.

More Information
· See http://www.rtsw.co.uk/hardware for a complete hardware specification
· See http://www.rtsw.co.uk/products for more information on our other technologies

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.