



software

# tOG Payout



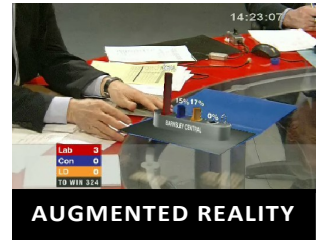
TEXT AND TICKERS



SPORTS INSERTION



VIRTUAL STUDIOS



AUGMENTED REALITY



## tOG Payout - Control for all RT Software tOG products

Payout 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 Payout comprises a set of comprehensive tools that facilitates these operations.

tOG Payout Control is RT Software's main payout control system. It allows users to select existing graphics for payout, control payout 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 payout is sent to video for direct to air payout or layoff to disk for NLE ingest or 3<sup>rd</sup> party clip store payout.

### KEY FEATURES

- Intelligent, intuitive interface for payout control
- Seamless transition logic
- Single Page payout
- 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 payout
- n - 1 connection for multi input and control

tOG Football Control System											
3	2	00:00	L	P	NEW	OPEN	SAVE	SAVE AS	HOME	AWAY	
BEFORE PROGRAMME		IDENTS		ARSENAL	ASNL	MANCHESTER CITY	MAN.C				
TX INFO (F1)		MANAGER (Alt+M)		Arsene WENGER		Jose ROYLE					
COUNTDOWN (F2)		REFEREE (Alt+E)		24 John LUKIC	LUKIC	Gk	1 Nicky WEAVER	WEAVER	GK		
BEFORE MATCH		PLAYER (Alt+P)		22 Oleg LUZNYI	LUZNYI	DF	31 Laurent CHARVET	CHARVET	DF		
OPENING PAGE (F3)		ATTENDANCE (Alt+N)		5 Martin KEOWN	KEOWN	DF	7 Spencer PRIOR	PRIOR	DF		
FORMATIONS (F4)		ADDED TIME (Alt+A)		6 Tony ADAMS	ADAMS	DF	24 Steve HOWEY	HOWEY	DF		
HEAD TO HEAD (F5)		POST MATCH		29 Ashley COLE	COLE	DF	16 Paul RITCHIE	RITCHIE	DF		
LEAGUE TABLE (F6)		PENALTIES (Alt+K)		15 Roy PALLOUR	PALLOUR	MF	18 Josh WHITLEY	WHITLEY	MF		
SCORING		SUDDEN DEATH (Alt+D)		18 Chris GBAMANDI	GBAMANDI	MF	15 Jarrold HAMILAND	HAMILAND	MF		
SCORE AND CLOCK (F7)		STATISTICS		4 Patrick VIERA	VIERA	MF	4 Gerard WEXENS	WEXENS	MF		
STRAP WITH SCORERS (F8)		MATCH (Ctrl+M)		7 Robert PRES	PRES	MF	19 Danny TATTO	TATTO	MF		
FULL PAGE (F10)		TEAM FORM (Ctrl+T)		10 Dennis BERGAMP	BERGAMP	DF	9 Paul DICKOV	DICKOV	DF		
SUBSTITUTION		PLAYER (Ctrl+P)		14 Thierry HENRY	HENRY	DF	10 Shaun GOATER	GOATER	DF		
SINGLE (F11)		FULL PAGE (Ctrl+F)		31 Stuart TAYLOR	TAYLOR	DF	13 Tammy WRIGHT	WRIGHT	DF		
DOUBLE (F12)		MISCELLANEOUS		2 Lee DIXON	DIXON	DF	6 Kevin HORLOCK	HORLOCK	DF		
CARDS		MESSAGE (Ctrl+W)		8 Fredrik LUNGBERG	LUNGBERG	DF	8 Ian BISHOP	BISHOP	DF		
YELLOW (Alt+Y)		NAME SUPER (Ctrl+N)		11 Sylvain WILTORD	WILTORD	DF	22 Richard DUNNE	DUNNE	DF		
RED (Alt+R)		IDENT COMMS (Ctrl+I)		25 Nwankwo KANU	KANU	DF	34 Mark KENNEDY	KENNEDY	DF		
YELLOW TO RED (Alt+B)		BUG (Ctrl+S)									
CLICK (Ctrl+C)		BACKGROUND (Ctrl+B)									



## 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

## 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.



## DATA EDITORS

**The real-time 3d graphics generated by tOG 3d can be modified according to the data associated with them. tOG Payout 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 payout 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 payout.**

### 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 payout strategy. Multi tOG Payout Control systems may be connected by a network in a 1-n or n-1 arrangement.**

### Control Multiple tOG Live outputs from one tOG Payout

Use Payout 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 Payout from Multiple tOG Payout Control systems

Conversely, connect multiple payout 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.



# tOG Payout

software

## HARWARE SPECIFICATION

tOG Payout can run stand alone or on the render tOG Live PC but with a small performance overhead.



### 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 tech-

## 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.

## Contact Us



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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.

