I wrote TitleCG as a basic CasparCG client for lower third supers as I couldn't find a suitable one online. It's written in Livecode. Like CasparCG it's free to use and distribute.

CasparCG is a client/server software designed by the research department of Sveriges Television - SVT. Find it here -http://www.casparcg.com.It comes with a client which allows all the various features to be used, but isn't very user friendly for studio use. I decided to try using Livecode to write my own client as it's also free, and I'm writing this for free.

How it works

The CasparCG server runs on a Windows PC. It needs a graphics input/output card supplied by Blackmagic or Bluefish. These companies update their cards continuously, and a CasparCG wiki page keeps up with suitable cards.

From the CasparCG website you download the server, client, and template generator. Install the server on the machine with the graphics card, and add the template generator to Flash Pro as instructed in the wiki. As Flash is being phased out, HTML5 is becoming more used for templates. Hippo Animator is a good start, but it needs some Javascript to make dynamic text work. I have no experience of that.

At this point it's worth installing the supplied client and experimenting using the CasparCG Wiki instructions. The client can be on the local machine or any other machine - see Wiki.

CasparCG can be used for many things, up to running a complete tv channel. In the case of a lower thirds machine it needs three basic components.

- The server
- A client
- One or more Flash?HTML5 templates to provide the graphics styling

A tutorial here - https://youtu.be/mn4IfcDkIhU - provides info on how to create templates in Flash. It's almost too helpful. In a nutshell you decide how to get the stuff on and off the screen and build it in Flash and maybe After Effects . To make "on" and "off" you put a stop() in the action track at the end the "on" bit, and name the section of the action track which is the "off" bit "outro" . You put placeholder lower third supers in as dynamic text and by convention call the two lines f0 and f1. CasparCG replaces these with info from the client.

Flash CS6 is a real pain, not user friendly in any way. Hopefully HTML5 will become easier to implement. When the Flash design is complete run the template generator to create a .ft file. Copy this into the server /templates folder - that's unless you've fiddled around with the CasparCG config file and changed its location. If you want to use video or stills put these in the server /media folder. I've put a lower.ft and bars_and_tone.mp4 in the package.

That's it with the template, the rest is art. When the client sends a command to CasparCG it replaces the text in f0 and f1 with text from the client and puts the graphic on the screen. Another button press in the client takes it off.

So - Livecode. Unless you want to be paid for your application it's free to use. It can be compiled into standalone applications on Windows, Mac, Android and iOS, which is pretty good stuff. It uses a language that's intended to be very user friendly, but that isn't terrible

true. Just because it says “put value into variable”, or whatever, doesn’t make it especially easy to write. A major stumbling block for me has been the string that you send to CasparCG. This is long, complex and has to be right.

See -http://casparcg.com/wiki/CasparCG_2.0_AMCP_Protocol#Template_Data.

If you put this into a Livecode variable the system throws a complete fit, and my endless iterations on constructing the string didn’t work.

I spent ages searching the web and kept finding people with the same problem as me - can’t make string work - with no answers. In the end a request on the LiveCode forum brought the answer which was one of those “you don’t know what you don’t know” things.

What you do is to put a complete string as a basic template into a field or custom property rather than a variable and replace the parts of the string as required for each super. I put xxxxx in f0 and yyyyy in f1. You need a second master field as the “in use” one changes every time. Fixed in a few minutes once a nice lady in Minneapolis had told me how. Thanks again Jacqui.

So a lower thirds client needs a way to put stuff in, a way to edit, a way to output to CasparCG and some setup stuff. Livecode is built on a stack of cards, and is a descendant of Hypercard. Each card is another screen.

I wrote TitleCG for use at the university where I do some work. Not everyone there is a tech genius, so it’s designed to be as easy as possible to operate. You run the server, then TitleCG. It’s set up to run a clip at start so you know it’s running, but you’ll need to supply the clip and tell TitleCG what it is. Pick a function and carry on. There’s a setup page to change templates and other stuff.

After I made the lower thirds bit work I realised that I had the basics sorted, so it now also does a channel bug, clips and a scorecard for two teams. I have another version for three teams. It all seems to work well

This is free software with no warranty and no support! GNU licence – don’t sell it!

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