

Video System Control with Qlab

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Introduction:

My project was to create a system with control between GrandMA and a media server and research and implement a dynamic design between the projected lighting and sound content in order to develop more knowledge.

This system would have cues triggered by certain sounds. Qlab audio cues have control cues to trigger the GrandMA that then triggers either of the video units' content. My goal at the end of this project is to have specialized skill that will stand me out from other electricians and provide technical guidance in the future.

Method:

I first approached the project through suggestions. Then selected equipment and drafted a diagram to make a plan for setup. I researched the equipment before getting familiar with each individually. I explored each device and learning its use and set up. I set up the systems with MA VPU and Watchout separately and recorded the difference.

Conflicts

Troubleshooting MA VPU and Watchout to work. MA VPU was not communicating with GrandMA and found Ethernet ports to have dedicated ports and resolved issue. Watchout did not receive MIDI. Troubleshooted by checking MIDI OX. Plan to use Artnet in the future to resolve issue.

Schedule:

Date	Day	Room	Hours	Work on:
4/1/2017	Saturday	V119	9 AM - 4:30 PM	GrandMA & MA VPU
4/5/2017	Wednesday	V014	8 AM - 10 AM, 5:30 PM - 9 PM	Watchout
4/22/2017	Saturday	V014	9 AM - 4:30 PM	GrandMA & MA VPU
4/26/2017	Wednesday	V014	8 AM - 10 AM, 5:30 PM - 9 PM	Watchout
4/28/2017	Friday	V014	12 PM - 5 PM	Qlab, GrandMA & MA VPU
4/29/2017	Saturday	V014	9 AM - 4:30 PM	Qlab, GrandMA & Watchout
5/6/2017	Saturday	V014	9 AM - 4:30 PM	Qlab, GrandMA & Watchout

The initial dates focused on individual equipment. GrandMA and MA VPU was looked at together in order to work with MA VPU.

System:

MA VPU: Media Server that works for the GrandMA. A media server is a dedicated PC for media content that can be accessed for display and/or manipulation.

GrandMA: Lighting console. Chosen in order to learn how to use MA VPU because both are needed to use the MA VPU.

Watchout: Multi display software.

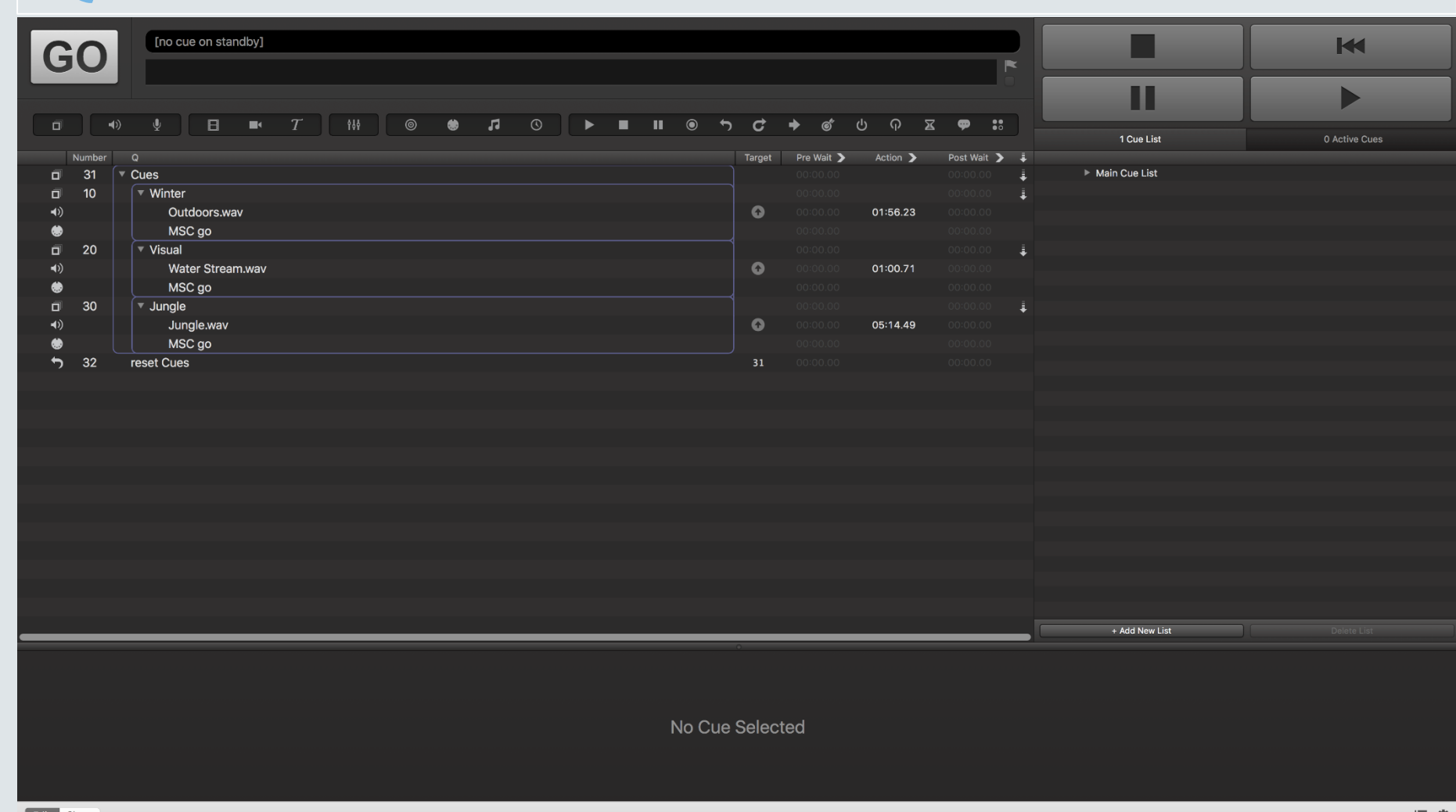
Qlab: A software often to trigger sound cues. Here it also triggers control.

Video GrandMA Qlab

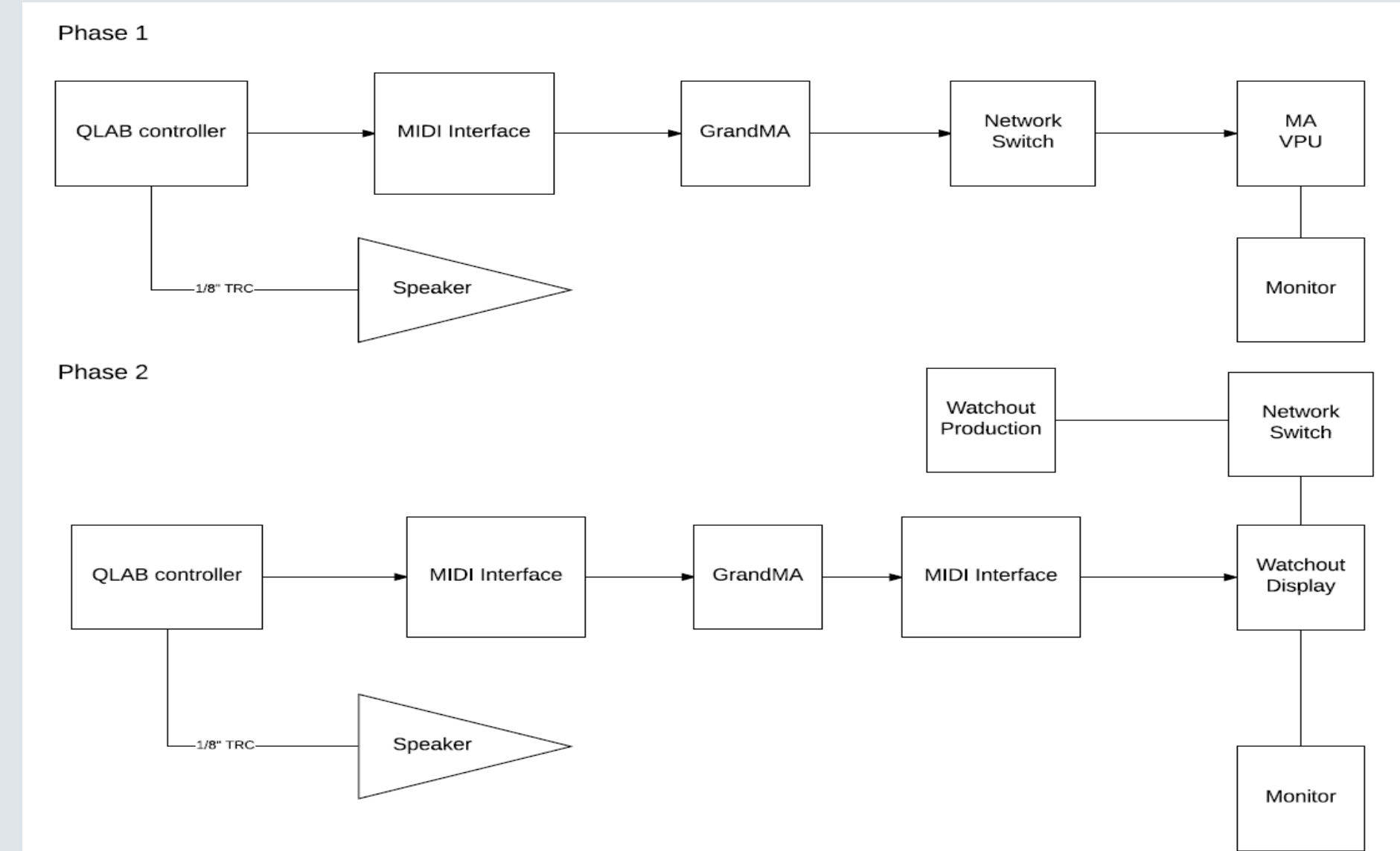


The initial setups of the entire system. Qlab on the right sends cue commands to GrandMA that is connected here with the MA VPU on the left where the console communicates with the video units.

Qlab



Block Diagram:



Outcomes:

The MA VPU was more versatile to manipulate content live while Watchout needed pre-programming. This is an advantage for improvisational shows. In my study I found that basic characteristics such as positioning can be changed live but MA VPU can change different color characteristics, fading, as well as manipulating 3D objects to display on live.

Because the MA VPU works alongside GrandMA lighting console, it is more friendlier to setup and operate by lighting professionals while Watchout is more easier to video professionals to setup and operate due to its popular use in the industry and familiar interface to a video editing software.

I was able to create a cue list on the Qlab that chose cues by random and had associated video playback that corresponded with specific sound cues. This was possible to perform on both MA VPU and Watchout.

Acknowledgements

- John Robinson for advising throughout the project and teaching throughout the years.
- Kate Brown, Marcus Garfunkel, and Kim Dowd from WorldStage for teaching me how to build the system and use Watchout.
- Brad Ward for mockup presentation.