Robert Henke

Simplified Setup and Transport

All of my newer concert and installation works got greatly simplified by the usage of AVB and the newer features of LaserAnimation Sollinger's LA Toolbox application. Replacing ILDA allows me to also get rid of my laser DA converters and heavy ILDA cables. In the past, the interface for using multiple lasers was on the hardware side (e.g. converting to ILDA) and not on the software side. Now, computers are fast enough to provide signals for eight lasers from a laptop.
AVB drastically reduces the total number of devices needed to be transported. AVB is also used to replace the interlock connection, which not only allows to further reduce cabling, but also features the ability to assign groups of lasers to individual emergency buttons in the software. In addition, a very fine-grained control of the safety zones is possible for each machine.
I can now set up an installation such as "Cos/Sin" with its eight PHAENON *accurate* lasers with nothing but a laptop running my own software, two AVB Ethernet hubs, and a bunch of standard CAT 5 cables available anywhere in the world for low costs. The complete installation fits in one large case, which also dramatically reduces shipping costs.

Simplified and enhanced calibration

For the above mentioned installation "Cos/Sin" and all my other works, highly accurate calibration is essential. Multiple lasers have to draw perfectly straight lines and shapes on surfaces, or even in the air based on a 3D model. Often the available hanging points for the lasers require quite drastic image transformations to achieve a perfect projection. The newer LA Toolbox feature DGC ("Digital Geometric Correction") makes such things super easy, fast, and precise, whilst still allowing for very high scanning speeds without artefacts. In some cases these features allowed us to reduce the average setup time of an installation from several hours to less than one hour, which is even more important for performances, where access to a venue / stage is limited.

Maintenance and Operation

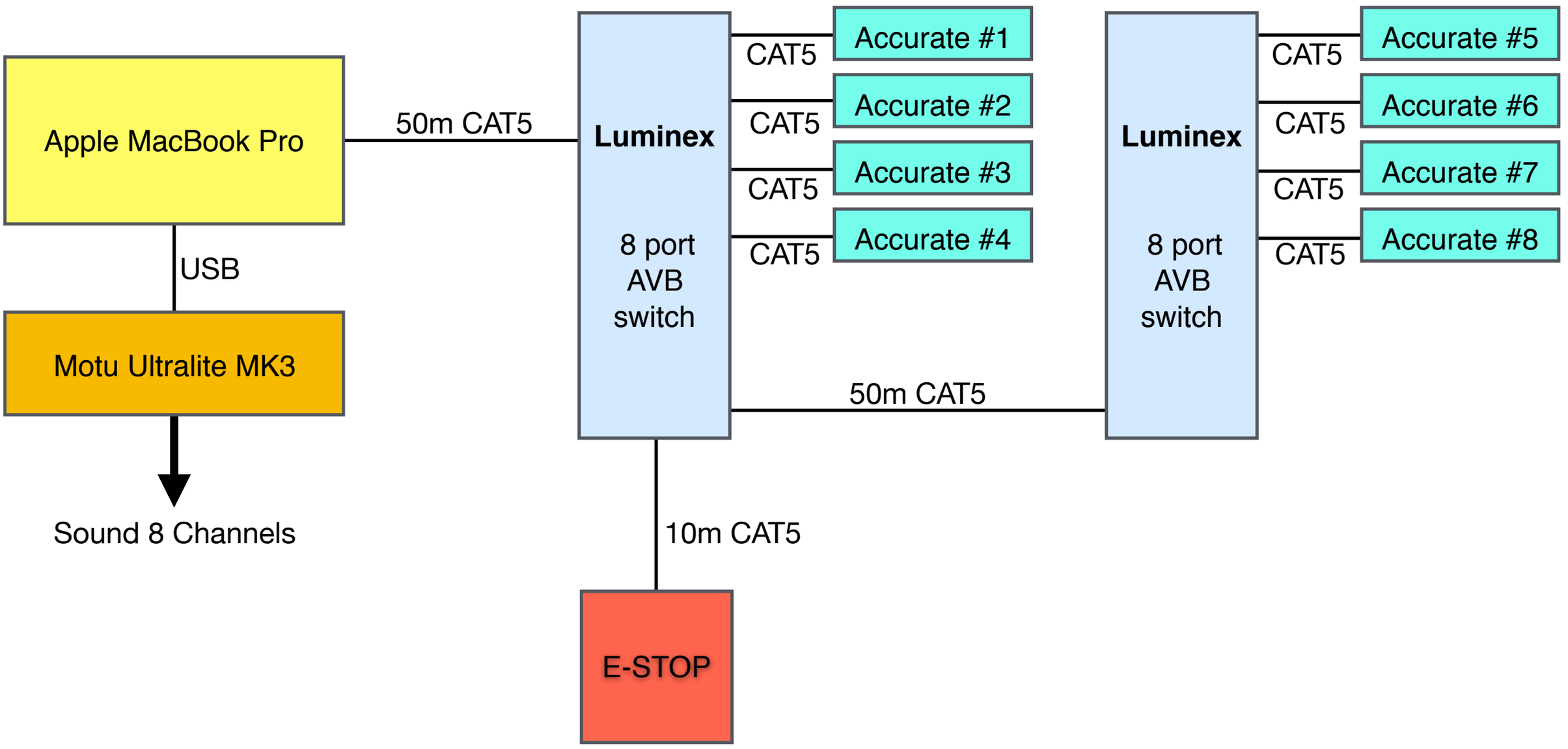
Since the connection to calibrate / adjust the laser is the same as the one to operate it, monitoring laser performance, re-adjusting things or even shutting down or restarting individual lasers can be done whilst the system is running. The option to monitor the function of all lasers from one central computer is also helpful in situations where a (unexperienced) local technician has to be able to re-start or even slightly re-calibrate an installation. If a complete audio-visual installation with eight lasers, and multichannel sound can run from one computer, using only three pieces of software (audio application, laser control application, LA Toolbox), providing a tech rider and instructions for local technicians becomes very easy, and potential downtime is minimised.

Before switching to AVB, I did not know what I was missing out on. Now, going back to ILDA seems like working with water cooled gas lasers again.

laser control and sound generation from single laptop on top of audio amp rack

4 lasers mounted on column 1

4 lasers mounted on column 2



Robert Henke : Cos / Sin Installation Complete Wiring Diagram