



Pandoras Box Training in LA

By: Richard Cadena

One of the more popular media servers in live event production is Coolux's Pandoras Box. I've had the opportunity to use several different varieties of media servers but, until recently, I've never had the opportunity to work with it. Last month, I traveled to Agoura Hills, California, a suburb of Los Angeles, and took a class on programming PB taught by Sam Kriemelmeyer and Greg Maple. It was a great class, lots of fun, and it was everything I expected and more. I highly recommend it.

In the interest of full disclosure, I should probably say that I only had time to take one day of the two-day Basic class. I couldn't squeeze in the second day, let alone the two-day Advanced class, four days of Basic, Advanced, and Expert Widget Designer classes, three days of Expert Warping class, or the one-day Expert Tracking class offered in California, London, and Cologne, Germany.

I've been wanting to take the class for a long time because PB always seemed to be a multi-faceted tool, some of which I understood and some of which completely puzzled me. For me, the hardest part of understanding the Coolux line of products was figuring out the many pieces of the product puzzle and what they do. Besides the media server, there's also Player software, Compact Player, Show Control Manager, Widget Designer,

Tracking ID Tags, and more. But that's the beauty of the system. It lets you choose from a variety of interfaces, like a DMX console, touch screen, MIDI/OSC, even hand gestures, and more.

I see Coolux every year at PLASA and LDI, and I always spend a few minutes catching up on the latest updates and advances. What I've learned is that you can understand the new features and not really understand the underlying architecture. It was around the time the company introduced the Widget Designer that my brain started fogging up, and it's probably because I wasn't used to the approach. I tend to think of a media server as a computer that serves media files (correct) through a user interface (not necessarily). But the Coolux approach seems to be to separate the functions of the system. Once I figured that out, and I figured out what each piece of the puzzle did, it started coming together.

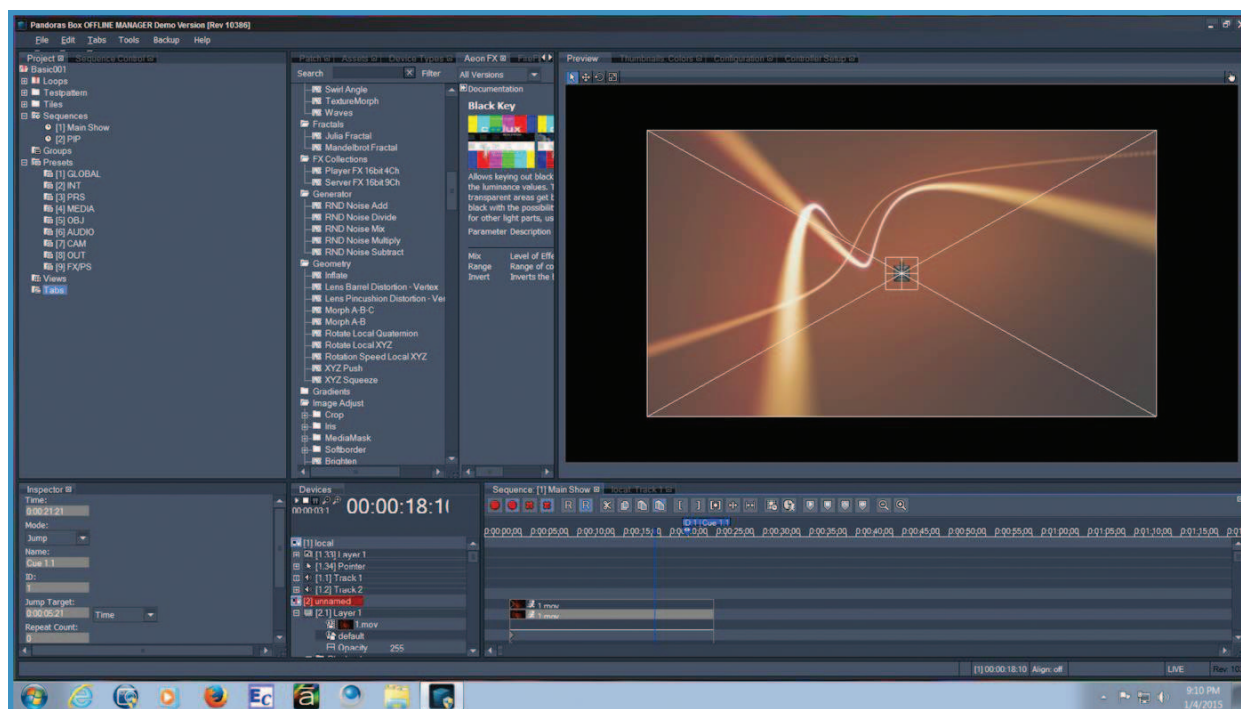
The programming interface is in the Pandoras Box Manager software, which is what controls the media server. The UI is the part of the system that I tend to think of when I think of a media server. But in this case, Manager is linked to the media server through the computer network. The Pandoras Box server is the part of the system that does the heavy lifting. It has a real-time 3-D compositing

engine; it creates the effects, warping, and soft-edge blending; and it plays back media with resolution up to 8K x 2K per video file. You can also run it as a stand-alone in master mode with its own UI, and that combines show control with video playback.

Manager software feels like a mix between video-editing software (think Final Cut Pro, Sony Vegas, or Adobe Premier), lighting control software (Pandoras Box seems to be closest to the philosophy of MA Lighting, another German company), and everyday Windows software. Most of the keyboard shortcuts you already use with Windows work in the PB system.

It's similar to video-editing software in that it has a timeline; it uses key frames; the Aeon FX engine, which has an abundance of effects, reminds me of After Effects; and you can create your own effects using High Level Shading Language (HLSL) for Direct X. The 3-D space also reminds me of Cinema 4D or 3ds Max. If you're familiar with these programs, it gives you a head start on learning and using PB. In fact, PB uses engineering units, and relating it to other 3-D programs and the real world is very intuitive.

The way Manager records and plays back cues and sequences is somewhat similar to a lighting console, except the cues are laid out in the timeline. It can even use multiple timelines for non-linear or asynchronous events. In some



Pandoras Box software.

ways, it's easier than a lighting console, because the timeline gives you a visual layout of the cue stack. Each cue can be assigned to be a play, pause, stop, jump, or wait cue, and the jump target can be a specific time or a cue number. It also feels somewhat like a lighting console in the way you set up a look and record the state to the timeline (a store active command), like a tracking console. You can also build entire shows without a timeline at all, using Active Values, similar to the MA Lighting work flow.

Many commands, like cut and paste, are exactly the same as any other Windows program. I also tend to think that the jumping and looping in the timeline makes it feel a bit like writing software code. It all adds up to a package that's very intuitive.

I learned a lot in one day of training, even things that aren't in the video tutorials, like where to find cool video effects like Nuke, the importance of sub-frame accurate synchronization, and a demonstration of how FluidFrame smoothes out slow motion effects and makes them less

jerky. It was also a great place to meet like-minded people and exchange experiences.

Like most people, I tend to forget how to use any piece of software unless I practice. Fortunately, there is a 60-day trial version of PB Manager that you can download and use; there are also some great tutorials on the Coolux website that walk you through Manager from the beginning. I spent the better part of a day going through the first 15 lessons. (I probably could have done it in half a day if Mark Zuckerberg had never invented Facebook.) Each lesson is about five or ten minutes long, and is very easy to follow. I mimicked the lesson on my PC and then practiced a bit afterwards to let it sink in.

The video tutorial says that if you can manage the exercises in Lesson 14, "you have done the most important things in basic timeline programming." Between the training day, video tutorials, and a little practice, I feel like I'm ready to take on a real show—or at least a moderately complex one.

Now I'm working on learning how

to control the timeline with DMX, Art-Net, or sACN, all of which is possible with the right hardware. You can also output DMX from Manager software to control devices from the timeline or to do pixel mapping.

Once the free trial expires, you can buy the offline editor for \$199. According to the specs, PB Manager runs on Windows 8, but in class we were told it will run on XP, Windows 7 Pro, and Windows 8.1. I'm running it on Windows 7 Home Premium and have had zero problems. I have a custom-built PC with an AMD Athlon 64 X2 dual-core processor (quad-core is recommended) running at 3.1GHz, only 4GB of RAM, and an AMD Radeon HD 7900 graphics card with 1GB of RAM (1.2GB is recommended).

One day is not enough time to even scratch the surface of the capabilities of Pandoras Box. That's not a reflection on Sam and Greg; it's just that PB is a very powerful system that is rich in features. I am planning to go back and finish the class, and hopefully, take the advanced classes too. Maybe I'll see you there. 📶