



PROJECT SNAPSHOT

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| Project Name: | Multiverse Studio Kit for permanent wireless DMX at a Studio for a Corporate Web Series |
| Location: | Redmond, Washington |
| Completion Date: | January 2022 |
| Client/Creative Director: | Erkan Miralem |
| Key Grip: | Jon LaFollette |
| Lighting Designer/Gaffer: | Neil Bestwick |
| Lighting Package: | Energy Arts LLC |
| City Theatrical Solutions: | Multiverse® Studio Kit 900MHz*/2.4GHz (P/N 5938), including: 6 Multiverse Studio Receiver 900MHz/2.4GHz devices (P/N 5904), RadioScan® Spectrum Analyzer (P/N 5988), Multiverse Transmitter 900MHz/2.4GHz (P/N 5910), Multiverse Node 900MHz/2.4GHz (P/N 5902) |

Q&A WITH LIGHTING DESIGNER NEIL BESTWICK:

City Theatrical (CTI): Can you tell us a little bit about this project?

Neil Bestwick (NB): We designed the lighting for this studio, which contains two separate sets, to be used for a web series for a larger corporate technology client located in Redmond, Washington.

CTI: What were the unique challenges for this project?

NB: The building that the new studio resides in is an R&D building for developing hardware. When employees are working on site, the building is made up of almost exclusively hardware developers, and maintains very specific Wi-Fi requirements.

For this particular setup, the client wanted to use wireless DMX because they didn't want a wire running from the table to the truss. Our team agreed to run wireless DMX and sought a reliable wireless DMX solution.

CTI: Were there any challenges based on the corporate studio setting of this installation?

NB: At the time of the installation, there was a small amount of traffic, both in people and in bandwidth used, at 5% or less due to the majority of the workforce for this tech company working remotely. What we worked on in the studio represented most of the work that had been done in the building for some time. We anticipated a lot more traffic upon the return of the workforce to the campus, but did not know when that would be, or how much more traffic there would be.

CTI: What was the timeline for the installation?

NB: The project was pushed back a number of times during COVID-19. The client started shooting their web series in the studio on January 25, 2022. Since then they've been in production, shooting and editing, and we have been able to make minor adjustments on set during down days. There will also be maturation with the set design over time.

In regards to the wireless DMX installation, we pushed it back in the timeline as long as possible. My sensibilities are all around reliability. Before my experience with Multiverse, I had always thought that running a wire was more reliable than broadcasting RF.

Q&A (Continued)

We installed Multiverse wireless DMX on January 3, 2022. The lighting was put in during the month of December 2021. We used ARRI Sky Panel S30s and L5 Fresnels lighting fixtures. We had some supply issues during that time, and but all of our chosen gear arrived before the Multiverse wireless DMX system was installed.

CTI: Had you worked with City Theatrical's wireless DMX systems before, on similar projects?

NB: To be honest I had not worked Multiverse wireless DMX before. I had been aware of product line for a while in how it was making changes to what we knew about wireless DMX.

We do a lot of corporate studio work. My company, Energy Arts LLC, is mainly involved with incorporating unique set power strategies sourced from battery power stations that afford portability and speed of set up, with a low footprint. Designing reliable solutions, with mission critical applications like this one, is what we do. Our need for reliability and non-interference with the client's business function is what drove our decision to use Multiverse for this project.

CTI: What was it like installing Multiverse for the first time?

NB: When we first began our Multiverse system installation, we experienced some issues with IP addresses between Luminair software and the Multiverse transmitter. We were able to resolve it quickly with some help from City Theatrical customer service. To credit the Multiverse design, it is as simple to change as changing a SHoW ID. Getting familiar with the Multiverse Studio Kit was simple.

CTI: Why was Multiverse the right solution for this project?

“To credit the Multiverse design, it's as simple to change as changing a SHoW ID. Getting familiar with the Kit was simple.”

- Neil Bestwick, Lighting Designer, Energy Arts LLC, on studio for corporate web series installation project in Redmond, Washington

NB: In terms of reliability, City Theatrical's Multiverse came up as the perfect solution, being that we could fine tune the wireless specifications to be least vulnerable to potential RF interference that could be happening in this building.

CTI: How did you use the dual band 900MHz/2.4GHz functionality of the Multiverse Studio Kit?

NB: I used the RadioScan Spectrum Analyzer from the Kit quite a bit, to get some samples over a few weeks, and the bandwidth we would be using. I chose the 2.4GHz band, knowing that I would have the 900MHz band available if I encountered traffic.

There was only light to moderate 2.4GHz traffic in the mid-range of the bandwidth, however, they had all but shut down the campus during the past two years due to the COVID pandemic. My concern around this, in terms of the DMX frequency range, was that once employees returned to campus, the Wi-Fi usage and traffic could go up and interfere with our wireless DMX system. We knew that when the labs fired back up, there would be a lot more Wi-Fi usage.

The Multiverse system was the one that was going to accommodate those changes down the line should we notice that by having the 900MHz option available.

CTI: Were any considerations made for the location of the studio, within a corporate building that houses R&D?

NB: Yes, we are very sensitive and respectful of the core work being done within the buildings. Ultimately our work is secondary to the work being done on campus. The consideration came up that we didn't want our lighting systems to interfere with the client's work, via the RF energy that our wireless DMX system would be putting out. The fact that the Multiverse system only emits EF energy when there's a change made to the DMX energy made it a good fit as well, as we were confident that it would not interfere with the client's work.

CTI: Did you perform any unique testing before choosing or installing Multiverse?

NB: Really, there was very little testing before our selection. My choice was based on what I knew about City Theatrical history. I had purchased and installed SHoW Baby 6 wireless DMX devices before, and they worked well for me in the little bit of wireless DMX I have used on projects.

I had some familiarity with the reliability of the Multiverse gear, and reputation of City Theatrical's mission critical applications. While we had no real testing of the gear performance, we installed it, turned it on, and it has been running well since.



Learn more about the Multiverse Studio Kit at:
www.citytheatrical.com/products/multiverse-studio-kit