



One of the five floats that used Multiverse wireless DMX controlled smoke machines or hazers to enhance the overall visual effect. Photo Courtesy of People.

PROJECT OVERVIEW

Project Name: **Multiverse® Wireless DMX/
RDM and RadioScan® at
UAE 51st National Day**
Venue: **[ADNEC](#)**
Location: **Abu Dhabi, United Arab
Emirates**
Event Date: **December 2, 2022**

ABOUT THE EVENT

This UAE National Day took the audience on a generational journey of the UAE's inspiring pioneers as viewers were transported from sea to space. Emirati musicians and the Royal Philharmonic Orchestra provided a beautiful live soundtrack as the audience followed the story of a group of children who learn about the UAE's rich culture, present-day achievements and its future goals and ambitions.

CASE STUDY Q&A WITH PM NICK READ:

City Theatrical, Inc. (CTI): What were the unique challenges for the project?

Nick Read (NR): We had a very short pre-production timeline that required careful coordination. The temporary venue was being constructed as the show's technical disciplines started installing the show's infrastructure. This had to be completed in time for the show's rehearsals, which required multiple levels of coordination. Many of the scenic items, due to their size, were also being constructed on site. This included the 60-meter long first passenger train in the United Arab Emirates, which was loaded onto a Mamoette Industrial low load mover and inserted into the procession daily.

PROJECT LEADERSHIP

Creative Agency: **[People](#)**
Production Manager (People): **Nick Read** (for Scenic Lighting)
Event Lighting Package Provider: **[Encore Global](#)**
Project Manager (Encore): **Riaan Gomes** (for Lighting Package)
Lighting Designer: **[Bruno Poet](#)**
Associate Lighting Designers: **Max Narula and Johanne Jensen**
Lighting Programmers: **Max Narula, Fraser Walker, and
John Barker**
Pixel Map Programmer: **Dan Bond**
Creative Overview / Scenic Designer: **[Es Devlin Studios](#)**
Lead Show Producer: **William Jensen**
Composer: **Mohamed Al Ahmed**
Head of Technical Disciplines: **Mark Fogwill**
Video Content Studio: **[Luke Halls Studio](#)**
Video System Design: **Anthony Bezcon**
Audio System Design: **Scott Willsallen, Auditoria**
Sound: **[Aggora](#)**
Structures: **Al Laith**
Broadcast Producer: **[Done + Dusted](#)**
All Communications: **[Clair Global](#)**
Video Projectors and Roe Strip: **[Creative Technology Group \(CT\)](#)**
Grandstand Cladding and Seating /
LED Supplier / Main Scenic Builder: **[VK Exhibitions & Decor Industry
LLC](#)**



One of the two Agri-tech floats, which had multiple channels of Multiverse wireless DMX control for RGB+CCT LED tape. Photo Courtesy of People.

CASE STUDY Q&A WITH NICK READ *(Continued)*

The other unique challenge was the size of the field of play. It was 120 meters long by 20 meters wide, with two 6-meter diameter steel sliding doors at each end. The structure was built using scaffolding clad in plywood such that the 'ceiling' of the venue was open to the elements. There were 16 catenary wires suspended above the length of the FOP with ROE video strip underslung from each of them. It all made a massive Faraday cage for us to try to transmit wireless DMX around.

The televised UAE National Day show occurred on December 2, 2022, but it was decided to add 10 "legacy shows" such that a wider audience could experience the event. To do this, we incorporated a rechargeable power system for every element.

CTI: Why was wireless DMX important for this project?

NR: The celebration was a carnival-style procession of people, themed trailers, floats, bicycles, puppeteers, and a train, all in a continuous stream past the two grandstand seating blocks. In order to do this, all of the visual lighting and SFX had to be controlled using wireless DMX and powered from mobile sources.

The site was not much wider than the show venue, so all elements of the show were preset, in order, behind the show starting portal. Once running, it then took 45 minutes to complete a show cycle. As the elements neared the FOP, we wirelessly preset the lighting and SFX and had a standby set electrician confirming the correct operations before they entered.

CTI: Where did you install Multiverse Transmitter units?

NR: We shared the layout and show design with the City Theatrical technical support team, and together developed a suitable location for the Multiverse Transmitter unit and the twin 7-8 Db Panel Antennas. We positioned it high up in the center of one side of the grandstand lighting truss, and City Theatrical recommended we use the 70 Multiverse Nodes with their standard antenna where best possible to receive the wireless DMX signal. We used 300mm antenna extension wires to discreetly mount the Multiverse Nodes in some of the smaller set pieces. The team at City Theatrical managed to turn around our product requirements incredibly quickly. They shipped the products directly to Encore in the UAE, where we set up and installed them the same day.

CTI: How are you using Multiverse Nodes as receivers?

NR: Due to their small form factor and ability to use a variety of power sources, we used the Multiverse Nodes as receivers on all scenic pieces. They ran on 12V, 24V and UPS battery supplies, depending on each element's power requirement.

One of two Agri-tech floats, with each float running on six 3KW UPS supplies. Photo Courtesy of People.

“Our vendor, Encore, along with the experts on the City Theatrical technical support team, worked together to deliver a suitable wireless DMX/RDM system at very short notice. The Multiverse Transmitter and Nodes system worked out of the box for us on a very technically challenging, long and narrow field of play, for this critical and televised UAE National Day event.”

– Nick Read, Production Manager, People, UAE 51st National Day

This train cab used Multiverse wireless DMX/RDM control for extra LED lighting within cab, such that the driver could be seen. Photo Courtesy of People.

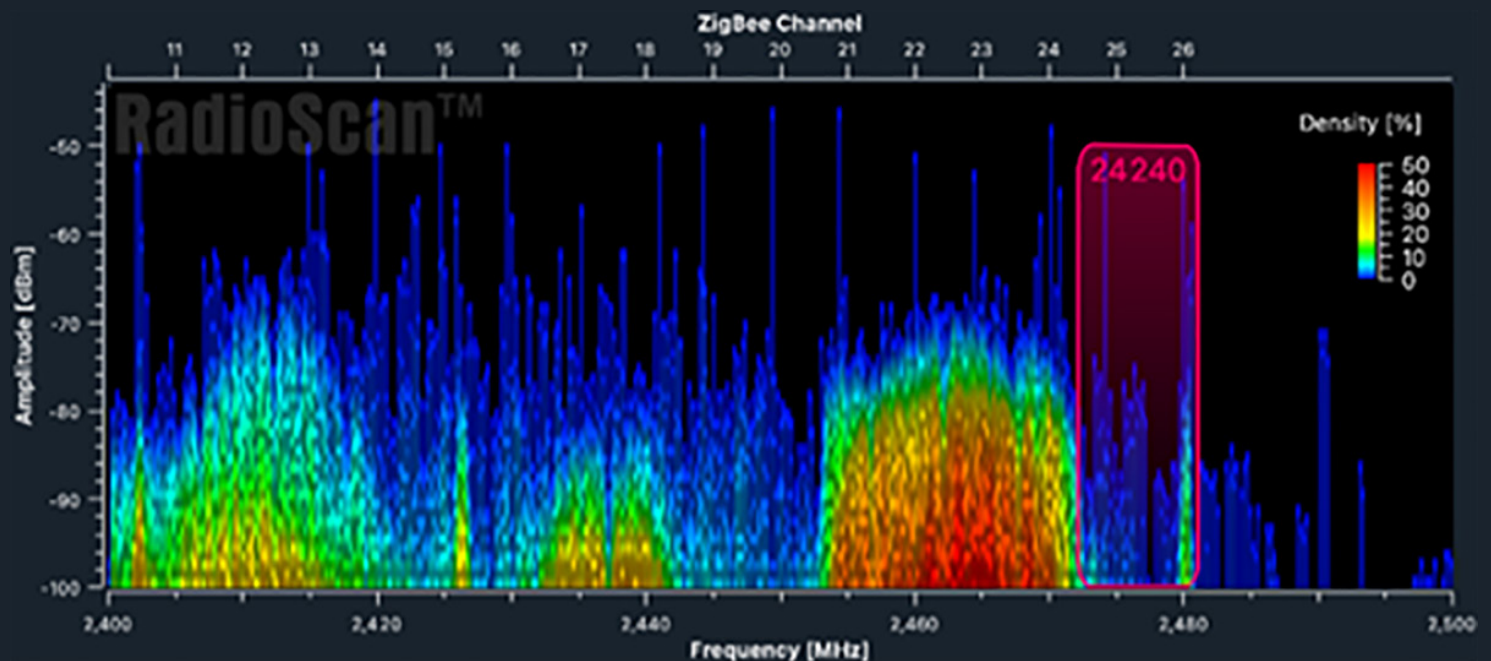


Photo Courtesy of People Creative FZ LLC

CASE STUDY Q&A WITH NICK READ *(Continued)*

CTI: What was your experience like using [RadioScan Spectrum Analyzer](#) for testing on the 2.4GHz band?

NR: The [ADNEC](#) site is Abu Dhabi's main exhibition building space. It has multiple three-day events and conferences running daily. To ensure maximum stability and reduce possible interference, we conducted multiple site surveys over several days and found a suitable spot in the 2.4GHz band that would give us two clear universes of DMX data to broadcast into. Once we had this information, we created a unique SHoW ID for each universe and pre-programmed the Multiverse Nodes with the information, as the timeline for testing and rehearsals was minimal. We were very pleased with the scans we conducted with RadioScan. The Encore team set up a two-universe Multiverse wireless DMX system that was very robust and worked the first time. The only issue we had was when the local mobile phone company arrived the day before the big day with a mobile 4G and 5G transmitter mast and truck that swamped the 2.4GHz band. RadioScan helped us resolve this issue by identifying areas of the band that both of us were using, such that the phone company could mask those areas of their transmitting output. After that, the show went ahead and looked spectacular!

CTI: Why was Multiverse wireless DMX/RDM the right solution for these projects?

NR: Having used City Theatrical's prior versions of wireless DMX systems for many years, we were confident that Multiverse wireless DMX/RDM was the right tool for the job. Since we carefully set it up, our Multiverse wireless DMX system has proven reliable and stable in every setting that I have encountered. As a rental item, it made sense for Encore to invest in the Multiverse system. Each of the 70 Multiverse Nodes can be set up as either a transmitter or receiving device, which has provided them with a very flexible tool for their arsenal of equipment. Multiverse wireless DMX is also great for corporate events when you don't want to run data down a hall or over doorways! We will continue to use it in the future.

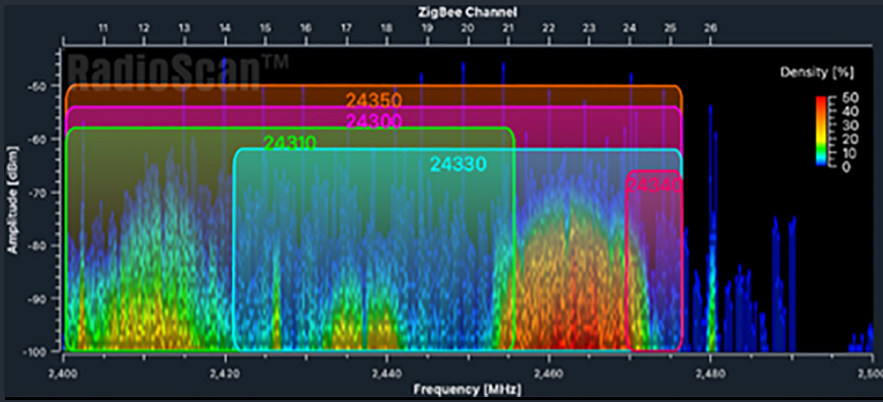
CTI: What was it like to set up and work with Multiverse wireless DMX/RDM solutions?

NR: On set up, we read the online manuals and watched the tutorials, which gave us confidence in how we set up the Multiverse units. This proved to be correct when we had them in our hands, and they worked well for the UAE National Day performance and following 10 legacy shows.

Multiverse was great to work with. In a production that had very tight delivery schedules and ever-changing creative ideas, it was one of the few things I was not worried about. We could not have achieved the effects we were after without your Multiverse wireless DMX system, and insights from RadioScan.

For more information on People, visit: www.people-creative.com

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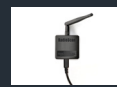
Multiverse® Transmitter 2.4GHz, 1 unit



6.8dBi/8.5dBi Panel Antennas, 2 units



Multiverse Node 2.4GHz, 70 units



RadioScan® Spectrum Analyzer, 1 unit

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– Nick Read, Production Manager, People, UAE 51st National Day

Multiverse wireless DMX/RDM was used to control the LED+CCT Tape and haze machines on one of three satellite floats, as shown. Photo Courtesy of People.



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