

### Lawo mc<sup>2</sup>36 & d&b SoundScape at Ravenna Festival 2023

Picture: Zani/Casadio

The Ravenna Festival, renowned for its vibrant array of opera, classical music, dance, jazz, and more, stands as a cultural pinnacle each June and July in Ravenna, Italy. With performances spanning indoor venues and outdoor stages, the quest for impeccable audio quality, both for live audiences and recordings, is paramount. Stepping up to this challenge with unwavering expertise is BH Audio, the trusted audio partner responsible for shaping the acoustic experience of the festival since its inception.

Massimo Carli, whose involvement with the Ravenna Festival spans decades, recalls the continuous pursuit of sonic improvement. Collaborating closely with the festival's visionary team under founder Cristina Mazzavillani Muti, BH Audio, in collaboration with renowned Italian sound engineer Massimiliano Salin, consistently sought innovative solutions to perfect the sound within the festival's diverse venues. One pivotal decision led them to embrace the Lawo mc<sup>2</sup>36 live audio console, a console that was yet to establish its reputation in the live sound domain. The console's remarkable sound clarity, intuitive layout, flexible setup options, and seamless workflow integration were benefits that resonated with Carli. In describing his experience with the Lawo mc<sup>2</sup>36 MkII, Carli extols its unique capabilities: "There is no other live audio console on the market that gives me this freedom and quality." Carli highlights the console's unparalleled flexibility in channel management and layout preparation, a crucial factor when adapting to dynamic changes and last-minute adjustments inherent to live events. The console's seamless adaptability enables Carli to meticulously fine-tune the setup before the concert, a distinct advantage, "because on this kind of jobs we never have real soundchecks", he smiles.

The mc<sup>2</sup>36 MKII offers 256 processing channels, available at both 48 and 96 kHz, and natively supports ST2110, AES67, RAVENNA, and Ember+. It provides an I/O capacity of 864 channels, with local connections that include 3 redundant IP network interfaces, 16 Lawo-grade mic/line inputs, 16 line outputs, 8 AES3 inputs and outputs, 8 GPI/O connections, and an SFP MADI port. Operational features include Button Glow and touch-sensitive rotary controls, color TFT fader-strip displays, LiveView video thumbnails, and super-precise 21.5" full-HD touchscreens. Loudness control is built-in and complies with the ITU 1770 (EBU/R128 or ATSC/A85) standard, providing peak and loudness metering for individual channels as well as summing busses. Carli's extensive experience with world tours and acclaimed artists has made him a firm believer in the mc<sup>2</sup>36 MkII's outstanding quality. He states, "For me, there is no real alternative to the mc<sup>2</sup>36 MkII."



Taking innovation a step further, Carli and Salin explored the integration of d&b SoundScape software with the Lawo console. Recognizing the potential to elevate the festival's auditory experience, the duo combined these technologies to create a harmonious symphony of sound. The results were awe-inspiring, enhancing the sonic landscape across various venues. This integration, tested and embraced even before its official launch during the 2013 Ravenna Festival, marked a pivotal moment in the festival's audio evolution.

Carli delves into the technical marvel of their setup: "The use of RAVENNA/AES67 makes the setup very clean compared to the past." This technology enables seamless communication between the Lawo mc<sup>2</sup>36 MkII console and the d&b SoundScape DS100 processor, streamlining signal flow. Carli efficiently routes 128 direct outs post-fader from the mc<sup>2</sup>36 to the DS100 processors, which in turn drives loudspeakers via its AES/EBU outputs. The inclusion of a tracking system further enhances the experience, dynamically transmitting performers' positions to the DS100.

Facing evolving requirements, Carli's partnership with the Ravenna Festival remained steadfast. When the need to stream concerts online arose, Carli sought a solution to merge the RAVENNA IP technology of the mc<sup>2</sup>36 with the DANTE protocol utilized by d&b SoundScape. Enter the Lawo Power Core, equipped with a DANTE card, effectively uniting these technologies and ensuring comprehensive setup redundancy.

The Lawo mc<sup>2</sup>36 MkII console has become an indispensable asset in the Ravenna Festival's sonic journey. As Massimo Carli attests, this console is not just a technological marvel, but a cornerstone of sonic innovation and artistic expression.

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