

Lawo for RTL Control Room



RTL News has completed a comprehensive modernization of Audio Control Room TR 1 at its Cologne headquarters, centered around a Lawo mc²96 Grand Production Console and a new IP-based broadcast infrastructure. The facility has been rebuilt from the ground up, upgraded for 5.1 surround production, and designed to support the evolving requirements of live, news, and sports broadcasting.

The project represents the next step in RTL News' transition toward a modern, HOME-based IP production environment. The broadcaster had previously equipped four audio control rooms with Lawo mc²56 consoles and the HOME platform. The newly redesigned Audio Control Room TR 1 integrates seamlessly into that infrastructure. As one of Germany's largest journalistic production organizations, Cologne-based RTL News produces daily programs including RTL Aktuell, Punkt 12, Exclusiv, and Extra, as well as numerous productions for ntv and other brands within the RTL family.

A visit to the new Audio Control Room TR 1 quickly reveals that the modernization

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extended far beyond replacing a console. The existing facility was largely stripped back and completely redesigned. Alongside the installation of the mc²96, the control room received a new monitoring environment, a modernized signal infrastructure, and full support for 5.1 surround production. RTL and ntv programs can now be produced and delivered in multichannel audio.

At the same time, the overall production environment has been significantly streamlined.

Many functions previously handled by standalone hardware, including auto-leveling, signal processing, and routing, are now integrated directly into the production platform. Only specialized applications such as CEDAR noise suppression and Waves SuperRack for advanced plug-in processing remain. Waves plug-ins are fully integrated into the workflow and can be controlled directly from the mc²96 surface. "Our objective went far beyond replacing a mixing console," says Gerhard Ruberg, Head of Audio at RTL News and project manager for the modernization. "We wanted to create a platform that will continue to meet the demands of modern live production while laying the foundation for future IP-based operating models."



RTL has relied on Lawo audio consoles for many years and already had extensive

experience with mc²56 systems. For its primary audio control room, the broadcaster selected the mc²96, whose control surface is specifically designed for large-scale broadcast productions and, like all mc² consoles, supports native SMPTE ST 2110, AES67, RAVENNA, and Dante workflows.

In its operational concept, the system combines large-format touchscreen operation with an extensive set of dedicated hardware controls, providing immediate access to EQ, dynamics processing, monitoring, and routing functions. In fast-paced live environments, where seconds can make a critical difference, this direct access is a significant operational advantage. “In a news environment, our audio engineers often need to react instantly to changing conditions,” explains Ruberg. “The mc²96 provides exactly the level of direct access and operational clarity we need to make fast decisions during live broadcasts.”

The benefits are particularly apparent in news and magazine productions, where varying microphone types, impromptu interviews, or challenging lavalier microphone placements often require immediate intervention while on air. With the mc²96, EQ, dynamics and level adjustments can be implemented instantly without distracting operators from the production itself.

Scalability was another key consideration. Major sports productions now involve signal counts that would have been difficult to imagine only a few years ago. Including intercom channels, some productions require up to 600 concurrent audio signals. The mc²96’s processing is based on a redundant pair of A__UHD Cores, providing extensive DSP resources and ample processing headroom. To maximize resource utilization, processing capacity can be partitioned into multiple smaller DSP cores, allowing additional audio productions in other control rooms to be operated from the same A__UHD Core pair.

One of the project’s biggest challenges was completing the migration while maintaining uninterrupted on-air operations. To ensure a smooth transition, the new console was initially installed in Audio Control Room TR 5, where teams from RTL News and Lawo tested the complete configuration, signal paths, and infrastructure under real-world production conditions.

Following several weeks of testing and operator training, the temporary control room even handled regular productions. Only then was the original facility fully modernized. Once the mc²96 was relocated to its permanent location, the migration was complete. Since August, all regular broadcast operations have been running from the new Audio Control Room TR 1.

In parallel with the console upgrade, RTL News took a major technological step toward IP-based production infrastructure. The legacy baseband solution was replaced with a modern IP-based architecture built around Lawo A__stage audio I/O devices, IP audio streams, and the Lawo HOME IP orchestration platform. The result is significantly greater operational flexibility. Studios, control rooms, and audio-processing resources can now be interconnected and allocated as needed.

The new architecture also enhances resilience, allowing production resources to be rapidly reassigned to alternative workstations or control rooms whenever required. The benefits of the new approach became evident during commissioning, when even short-notice changes to production workflows were implemented without disruption.

Despite an ambitious schedule, the modernization was completed successfully while maintaining uninterrupted broadcast operations. The result is a production environment that delivers faster workflows, greater technical headroom, and significantly enhanced future readiness. By combining the Lawo mc²96, A__stage, and a fully IP-based architecture, RTL has established the foundation for the next phase of its live-production strategy, supporting everything from daily news programming to complex live and sports productions.

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