

Canyon Hills Community Church Expands with Lake LM 26 Processing



BOTHELL, WA - Morgan Sound provided three Lake LM 26 digital audio loudspeaker processors to help Canyon Hills Community Church keep up with its changing audio needs.

"Because we were seating more people during our Sunday services, we added 180-degree seating around the stage areas, which now required additional side-fill and delay speakers to provide improved sound coverage deeper into the room," noted Jon Huff, the church's technical arts director. "The Lake LM 26 processors offer a lot of control via systems presets that can be recalled by our non-technical staff. They are a great solution."

The three LM 26 processors are among the first to be used within a fixed installation within the U.S. Morgan Sound was the natural choice for the Canyon Hills install - the soundco has been working with the church for close to 10 years and also installed the original sound system.

"During the past decade we have progressively upgraded the JBL audio system," said Stephen Weeks, Morgan Sound's AV consultant. "The new Lake processors were added in June to provide dedicated outputs for the main PA system, side fill and delayed loudspeakers."

The church auditorium - a converted warehouse - measures 125 by 90 feet and seats up to 950.

The LM 26 were selected for their flexibility, versatility and direct plug-and-play compatibility with the church's Yamaha M7CL digital production console, which features an Audinate AUD-MY16 Dante interface card.

"The three LM 26 units are being used to provide equalized and delayed feed to the various loudspeaker arrays," Weeks noted. "The first LM 26 controls the main left and right JBL stacks; the second LM 26 provides dedicated feeds to the side-fills and other delayed zones; the third LM 26 covers additional delays, subwoofers and the 70V distribution system.

"In the future, the church plans to add a number of overflow rooms, for which the LM 26 can be easily re-configured to provide appropriate outputs," Weeks added. "They are remarkably flexible, future-proofed processors, with fully programmable EQ, dynamics control and delay settings."

Weeks also credited the LM 26's support for Dante digital audio networking, saying it "dramatically simplifies connection from the Dante-compatible Yamaha front-of-house console. We just needed a couple of standard Cat5 cables, instead of a cumbersome analog snake.

"The Dante I/Os also enabled us to daisy-chain the FOH left-and-right mix between all three LM 26 units, which then used those signals to derive their loudspeaker-specific signals," Weeks continued. "The enhanced sound quality from the main left and right loudspeaker arrays was a noticeable advantage, with improved converters, crossover filters and EQ sections.

"The church also plans to interconnect various rooms - including a recording area, an overflow room that will relay sound and video during services and two other spaces - via a campus-wide network based on Dante-format interconnects. This will enable the LM 26 processors and other Dante-compatible units to talk directly to one another and be reconfigured from a number of locations, to suit changing requirements."

The LM 26 Digital Loudspeaker Processor was derived from the original Lake Contour Processor. "The LM 26 features a legendary and great-sounding equalization, relying on Mesa EQ and FIR [finite-impulse response] filters," Weeks said.

Offered in a stand-alone, two-in/six-out configuration, the LM 26 retains Lake features such as Raised Cosine Equalization, linear phase and classic crossovers, plus LimiterMax peak- and RMS-responding limiters. The front-panel display features fully labeled I/O gain and limiter gain-reduction meters; an alternate screen view provides a summary of input configuration, digital clock status and input-level metering. A powerful routing matrix, accessible via the front-panel interface, allows any input or module output to be routed to any analog/digital outputs - usefully, without the need for a separate computer.

"Using a laptop computer," Weeks said, "we were able to set up and fine tune each Lake processor from various locations within the auditorium." An included Lake Analyzer Bridge provides a real-time interface with Smart Live 5.4 and Live Capture Light/Pro, providing direct audio analysis and measurement feedback within the Lake Controller software. "Installation is a quick and easy process," Weeks added.

Morgan Sound also utilizes Lake processing in its touring PA department. "The original Lakes have proved extremely reliable on the road, with excellent user features," Weeks said, crediting the new systems as "worry-free" and flexible for touring clients. "We expect them to remain our first-call choice now and in the future."

"Our new Lakes LM 26 units are a perfect solution for our exacting needs," added Canyon Hills' Huff. "With their separate outputs with individual level, EQ and delay settlings, the LM 26s have worked out very well for the church."

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