# d&b system integration with Beckhoff automation.

**Full integration of d&b systems into a scalable automation platform for control, operation, data processing and monitoring for stage, show and media applications**

Key to modern AV and performance audio installations is the combination of sonic excellence with extensive and fully customizable functionality.

A permanently installed loudspeaker system must integrate with existing infrastructure, offer a seamless user interface, and provide neutral sound reinforcement for speech and music.

PC-based control technology from the specialists at Beckhoff offers comprehensive range of modular components for all automation tasks. The Beckhoff Automation platform is ideal for automating all functions in stage, show and A/V Media technology, from movable objects, to lighting, AV media technology, and building automation.
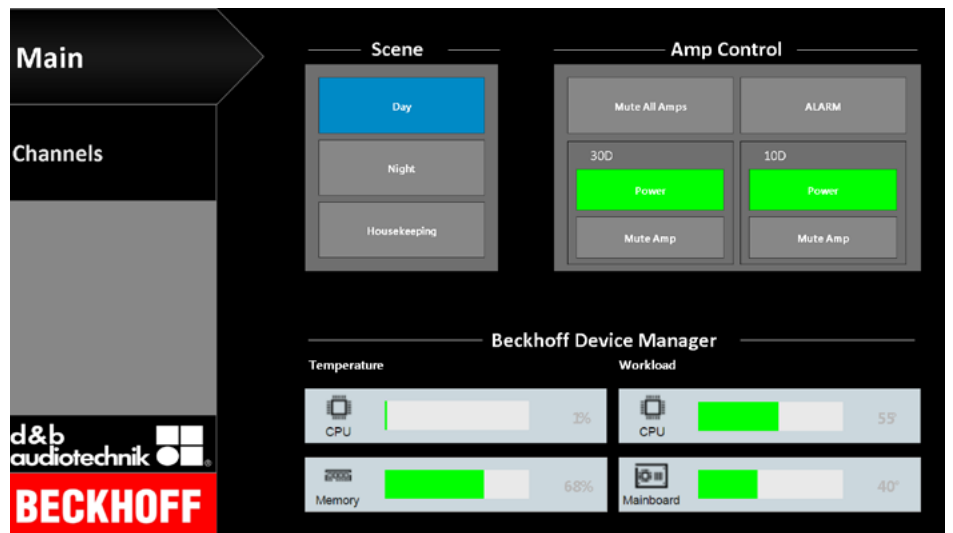
A customized application structure enables complete integration of the installation specific d&b 10D and 30D amplifiers, as well as D20 and D80 amplifiers, into the Beckhoff control network domain.

The d&b installation at Limtec features a Beckhoff automation platform, which controls light, video and different d&b amplifier commands such as mute, change AmpPreset and check device status.
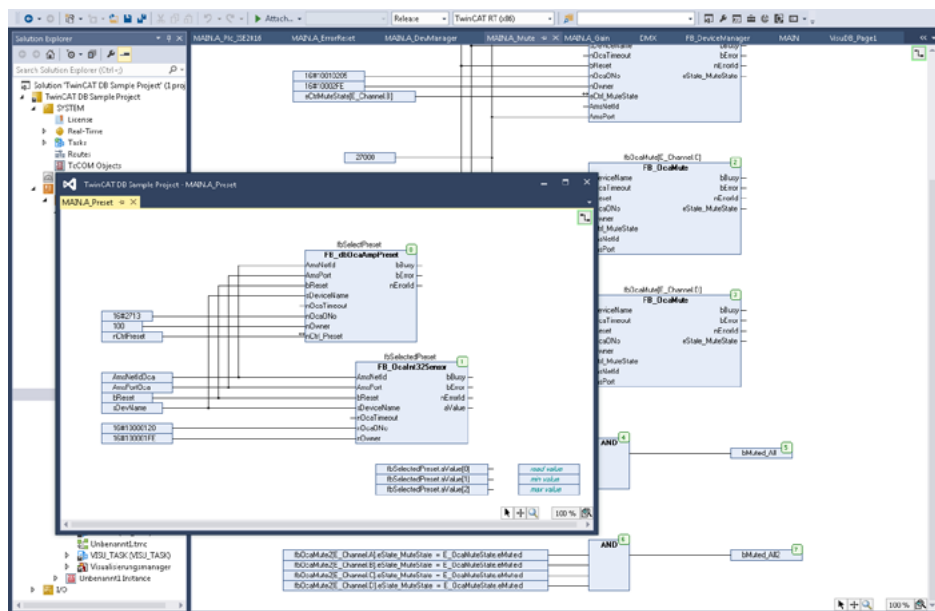
In combination with Beckhoff automation, a d&b loudspeaker system is the ideal solution for any permanent or mobile installation demanding the highest audio performance and fully customizable remote control capabilities, regardless of the size, shape or scale of the project.



**The d&b installation at Limtec training center, Belgium**



**Beckhoff Device Manager software**

## Beckhoff TwinCAT function block for d&b amplifiers

The d&b Beckhoff Function Blocks for TwinCAT can provide access to d&b amplifier parameters such as Gain and Mute status, recall AmpPresets or change the Power On/Off status. In addition, it can access all other OCA parameters of a d&b amplifier and can also read several types of information from the amplifiers including Input monitoring and Load monitoring and amplifier status.

Via the Beckhoff TwinCAT software, these parameters can be adjusted using different Function Blocks for OCA/AES70 communication. This permits full system control and status monitoring to the d&b system. d&b sound reinforcement systems can thereby become fully operable in a system environment designed for intuitive and easy everyday handling for all users, for performances of any kind. Offering more than 400 signal types,

the Beckhoff I/O system covers the entire range of actors and sensors, from digital and analog standard signals to the integration of lighting equipment, Motion Control, Building Automation and A/V Media Control.

With the flick of a switch, a normally unattended audio system intended for natural speech reproduction - with the highest intelligibility - can become a full blooded loudspeaker system for music and live program reproduction fulfilling every concert and performance expectation. The Beckhoff automation platform provides functions for status logging, automated notifications for system events, errors through email or SMS or pushmail (cloud), while the OCA/AES70 protocol implementation enables the d&b system to become part of a large automation platform.

Stadiums, houses of worship, performing art venues, corporate auditoriums and large event spaces all demand the highest performance, intelligibility, flexibility and ease of operation.

To improve the level and tonal balance of d&b line arrays even further, the optional ArrayProcessing feature within the d&b ArrayCalc simulation software applies powerful processing to optimize the spatial and spectral performance of a line array over the entire audience area. The AP slot can be changed through defined AmpPresets, to adapt the performance of the system according to the requirements of the actual situation. Different ArrayProcessing slots can be preprogrammed to change the processing emphasis for maximum SPL and system headroom, or for the best match of target level distribution and frequency response.

The acoustical distribution of the audio system becomes configurable to the individual requirements and the emotional character of the event, while ease of operation enables users to select the system operating mode via tailored user interfaces.

Detailed technical information for the Beckhoff control solution for d&b is available to download from www.dbaudio.com.

> **Stadiums and Arenas**
> **Houses of Worship**
> **Performing Arts**
> **Conferences**
> **Corporate**
> **Cruise Ships**
> **Live Clubs**

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