

Pentegra Systems Client Spotlight - A/V Systems



Duke Ellington Ballroom

Northern Illinois University
DeKalb, IL



Client Profile

Located just out of the reach of Chicago's western suburbs, DeKalb, Illinois has been home to Northern Illinois University since 1899. The Duke Ellington Ballroom located in the Holmes Student Center, is infamous for being the site of the bandleader's last full concert before his untimely death in 1974. As a tribute to Duke Ellington's legacy and his fine performances at the University, the ballroom was renamed in his honor in 1980. Being a multipurpose space, the ballroom hosts all types of events from career days and conferences to piano recitals and wedding receptions. In 2003, as the facility went through an extensive cosmetic renovation, Pentegra Systems partnered with the electrical contractor Kelso-Burnett (Rockford, IL) and the acoustics and AV consulting firm Talaske Group (Oak Park, IL) to engineer and implement a versatile audio and video presentation system. Given an aggressive project schedule, the AV system implementation required precise procurement and efficient coordination with all of the other on-site trades.

Main System Components

- Biamp Digital Signal Processing
- Crestron Isys Touchscreen Controls
- Crown CTS Series Amplification
- EAW Stage Monitors
- EAW Full Range Loudspeakers
- Electrovoice Ceiling Speakers
- Sharp LCD Projection
- SVS Ceiling Enclosure Projector Lifts



"The AV system is dependable and sounds great. The acoustics and sound distribution are greatly improved. Pentegra's customer service is excellent; I would recommend them to anyone"

-Audio Visual Supervisor

Pentegra Systems' Solution

Pentegra integrated an AV system that would be versatile and reliable for many years to come. The system consists of a concert quality sound system based around the ballroom's main stage; a distributed sound system with high-performance ceiling speakers; three commercial grade video projectors on ceiling lifts with seven different projection screens; expanded jack/plate infrastructure; head-end equipment and a Crestron touchscreen control system. The video system requires that the east and west projectors descend from the ceiling and be pointed towards the screens on the north wall or towards the screens on the east and west walls making the precise alignment of the screens, lifts and projectors crucial. The audio and video systems can be activated and configured for different events using the custom Crestron controls. The sound systems were carefully calibrated using SmaartLIVE software and the video systems were calibrated by an ISF-certified Pentegra systems engineer using Sencore test equipment. In November 2003, the ballroom was rededicated during a tribute concert by the world-renowned NIU jazz band.