

CUSTOMER SUCCESS STORY

May 2007

Customer: St. Martin's Episcopal Church – Houston, Texas
ClearOne products: PSR1212

The Situation

St. Martin's Episcopal Church has been a landmark fixture in the Houston area since its establishment in the 1950s by The Rev. J. Thomas Bagby. The church grew from its initial humble beginnings, and by the 1990s, St. Martin's had become one of the largest Episcopal churches in the United States.

As the church has grown over the years, various building and expansion projects have been completed to accommodate increasing numbers of members. A church building (now referred to as the "Old Church") was constructed in 1958, and major expansion projects increased facility size and capabilities in 1984.

The most recent project was the construction of a stunning new Gothic church building, pictured here:

The New Church, a true architectural masterpiece, is used for weekly church services. The Bagby Parish Hall is used for meetings, lectures, speeches, classes, and could also be used as an overflow area for the New Church.



The Challenge

With the construction of the New Church building, implementing a reliable, high-quality audio system became a high priority. Proper amplification in the building was paramount, as the large space is very reverberant, typical of large Gothic spaces. Sermons and readings are delivered from multiple locations, including the main pulpit, a reading lectern, the altar, and the chancel area. The choir area also required microphones to cover soloists or cantors.

In addition, the Bagby Parish Hall required a complete sound system for the various meetings and classes that take place there, not only for speech audio but also for amplification of instrumental music groups that may perform as well.

The Parish Hall presented an additional challenge – the space is divisible into three different areas, and St. Martin’s wanted to be able to use that space in any combination, with an audio system that would quickly and easily adjust to those different combinations.

There was also a requirement to route audio between the New Church, the Parish Hall, and the Old Church, so that sermons could be simulcast into both locations for purposes of handling overflow. The system needed to carry not only the voice of the clergy member delivering the sermon, but also properly pick up the audio from the choir, the organ, and other ambient audio in the room so that members seated in the other facilities could enjoy the full service as if they were seated in the New Church.

Another requirement was to install a centralized audio system that could route any audio feeds to an output for recording purposes. St. Martin’s wanted to make weekly sermon podcasts available on their website, and was looking for a simple way to capture the sermons, as well as other presentations happening in both halls.

The Solution

St. Martin’s enlisted the services of John Prohs of Shen Milsom Wilke to design the AV system for the New Church and Bagby Parish Hall and Ewart “Red” Wetherill oversaw the acoustics. Hairel Enterprises, a Texas-based AV integrator, was commissioned to provide additional design and installation services. Kelly Hannig, Director of Sales Support Engineering for ClearOne, also provided on-site consulting and configuration assistance.

John Prohs chose to specify **ClearOne’s PSR1212** sound reinforcement solution for audio routing and distribution for both the New Church and the Parish Hall. Other equipment includes:

- **Control system** Initially, an AMX control system was implemented to control the PSR1212 functions; later, a live digital console was installed to add functionality to the system.
- **Amplifiers** Gentner 8-channel amps were used for the entire distributed system and also the floor monitors.
- **Speaker system** Intellivox steerable line array speakers were installed in the New Church.



- **Microphones** Lectern microphones were installed at the main pulpit and the reading lectern; however, only the reading lectern mic is used on a regular basis. The primary microphone application is wireless headworn mics that put the element right next to the priest's mouth. The directionality of the headworn mic and the proximity to the person's mouth mitigates the risk of feedback in the reverberant space.

A total of seven **ClearOne PSR1212** units were installed into a centralized rack in the Parish Hall, with feeds that come over from the New Church. The PSR1212 products are the heart of the campus' audio system, with 40 mic/line inputs coming from both halls. The systems deliver capabilities required by St. Martin's:



- **Audio recording** The system sends audio output to both CD recorders and tapes (which are in both locations), which allows St. Martin's to post weekly sermon podcasts on their website, and record other presentations in both facilities.
- **Room combining** Hairel Enterprises utilized the unique, sophisticated preset and macro features that the **PSR1212** offers to set up a room combining application for the Bagby Parish Hall. With a single command, the 3-way divisible space can be configured so that audio is routed properly for any combination of those three spaces.
- **Audio routing between buildings** The **PSR1212** also handles the audio routing with ease. Audio feeds from the New Church are routed via fiber optic cable to both the Parish Hall and the Old Church. The audio complements the video feeds that are also routed between the facilities.

Hairel installed an ambient audio microphone by the choir area in the New Church, which picks up audio from the choir, organ, and other ambient room sound. Audio from this microphone is routed to the recording system or to the Parish Hall and/or Old Church, without being re-broadcast back into the New Church. The other microphones in the room are routed back to the line array speakers in the main hall, as well as to the remote locations. The powerful capabilities of the built-in audio mixer of the PSR1212, which are easily configured with ClearOne's G-Ware software, allow any input to route to any output, facilitating this particular application.

- **Audio playback** The Parish Hall has a multi-disc CD player that connects through the **PSR1212** and routes back into speakers in the room for background music.

Results

John Prohs wanted to implement an automatic system with digital signal processing capabilities, and the **PSR1212** was an especially good fit for the room-combining application. Scott Baker of Hairel Enterprises remarked that the ClearOne products met all of their requirements for the integration project. The systems handle the audio routing between the buildings very well, with no latency issues. They are able to connect to the systems via a laptop and fully control the audio elements from a centralized location.

Both Bill Kovach, Chief Administrative Officer of St. Martin's and Scott Baker of Hairel were recently especially appreciative of the ability to easily keep a backup of the **PSR1212** configuration files, and ClearOne's support services. The church was struck by lightning several months ago, and the surge took an unusual path through the steel structure of the building into the audio system, and unfortunately some equipment was damaged, including all seven **PSR1212** units. Scott called ClearOne support services, and arranged to have new units sent. The next day, the new units were in place; Scott simply re-loaded the configuration files, turned the system on, and everything worked without any adjustments.

St. Martin's has been very happy with the **PSR1212** systems that were installed. They have proven to be a reliable solution for their audio needs in both facilities.