

FOR IMMEDIATE RELEASE:

Sound Designer Takes Control

Acoustic Engineers create infinite studio and control room tuning options for Curtis Visual Communications.

May 22, 2009 – Portland, Oregon

The unique tunable characteristics of the audio recording studio and control room at the Curtis Visual Communications facility in Cincinnati, OH were presented at the 157th Acoustic Society of America meeting today.

The audio suite, designed by KJWW Engineering Consultants of Rock Island, IL, features a control room that provides a tunable “Reflection-Free Zone” (RFZ) for the sound designer rather than the conventional “Live End/Dead End” (LEDE) design. Fewer than 75 control rooms in the United States incorporate this functionality.



Curtis Inc. Audio Control Room

“This design does away with that presupposition that the room has to be dead,” said Jon Mooney, senior engineer with KJWW. Instead, the RFZ allows the sound designer to adjust the liveliness of the room for their use.



Reflection Free Zone

A LEDE control room is designed to absorb all reflections from the speakers in the front of the room. One problem with that design is that it makes the whole room relatively dead — the sound is heard once from the speakers, and then all reflections are quickly absorbed by the room.

A Reflection-Free Zone allows the room to still have reflections, but they are not heard immediately by the sound engineer. The design directs speaker reflections from the front of the room away from the recording engineer and extends the initial time delay without requiring a “dead” front end.

“This creates a much livelier sound because you didn’t absorb all of that energy to begin with,” Mooney said.

The initial time delay, which is the amount of time between when the sound designer hears the sound from the speakers and when he hears it coming from reflections in the room, can be adjusted for different effects. This has the benefit of making the room sound larger than it actually is.



Control Room Doors closed for maximum diffusion



Doors open revealing absorbent fiberglass material

The control room features beautiful cherry wall storage cabinets that also serve as acoustic treatments. The doors can be opened in varying degrees to adjust the reverberation of the room to create the best sound by changing the absorption and diffusion within the space. Opening the doors creates a fairly dead room, giving the sound designer the option of a traditional-sounding control room.

“Acoustically the control room feels very open and diffusive,” said Jon Brennan, Sound Designer and Music Composer at Curtis, Inc. “The room is a bit more lively than other control rooms; however opening the diffuser doors has a large effect on lowering the reverberation time and focusing the sound directly from the speakers.”

The studio also features variable acoustics in its design: large hinged boxes attached to the walls (affectionately known as “wall coffins”) allow a wide range of adjustments to the reverberation and diffusion characteristics of the studio.

KJWW put together a manual for Curtis, with instructions on how to operate the variable acoustic components of both the studio and control room to achieve the desired effects.

“Recording engineers have their own favorite sounds,” Mooney said. “It’s our job as acoustic consultants not to dictate what that environment should be, but allow the recording engineer to be the test pilot and judge for themselves what that should be.”

According to Curtis Sound Designer Jon Brennan, recording with adjustable acoustics changes the way recording is done. In other studios it is common to place a performer in an area of the room that might have the desired acoustics, like a live area vs. a dead area. With adjustable acoustics; the entire room can be tuned or tailored to a specific performance. This adds flexibility for the Sound Designer not otherwise possible. For example, one song can have many different acoustic settings. In a multi-track recording the room can be tuned for each instrument or part, allowing for a more dynamic and creative recording.



Studio Doors at 90 degrees



Studio Doors wide open

“I had a solo classical player in the studio recently,” Brennan said. “After closing about half of the doors, her instrument came to life and really utilized the natural reverb in the room.”

In addition to monitoring and mixing, Brennan has found the acoustics and low noise floor of the control room to be ideal for the recording of sound effects. When recording Foley it is important to be able to record and manipulate sound in the control room. There often isn't time to set up mics in the studio and call a second engineer to run the session. We keep a mic 'live' on the mixing desk to capture that moment's creative inspiration.

“Recordings and mixes from the control room have translated very well on other audio systems. This shows that the room is not coloring the sound,” he said.

Another aspect of the design and construction of the audio suite is that the studio and control room are completely physically isolated from each other and the rest of the building via floating “wall within wall” construction. The very low noise floor in the control room and studio has added a greater amount of detail to both the recording and mixing.

“Being able to hear accurately has increased my speed, creativity and attention to detail.”



The control room and studio are completely isolated from each other and the rest of the building

About Curtis Inc. Visual Communications

Curtis, Inc. is a high-end creative production and postproduction powerhouse centrally located in Cincinnati, Ohio. Production services include Video, Audio, and Multimedia production as well as meeting services and media duplication.

Professional music and voice recording, post production sweetening and Foley work takes place in our exceptional in-house audio suite with Pro Tools HD. Studio or field video recording can be produced in either HD or SD. Three interconnected Avid Adrenaline edit suites make video editing a seamless process. Multimedia services include web design, interactive authoring, and the creation of FLASH programs for the web and CD-ROM.

About KJWW Engineering Consultants

KJWW Engineering is a national leader in consulting engineering services for building and infrastructure systems and a leader in the healthcare market. Ranked among the top 15 engineering firms in the U.S., KJWW provides clients with a distinctive approach to integrated engineering services.

The unique combination of mechanical, electrical, structural, technology, acoustics, architectural lighting and medical equipment planning services provides the highest level of integration among these interdependent systems. The breadth of these services is unmatched in the industry.

Contacts: Curtis Inc.

Jon Brennan - info@curtisinc.com

Sound Designer, Curtis Inc.

513.621.8895

1105 Western Ave. Cincinnati OH 45203

Bob Amott - info@curtisinc.com

Public Relations, Curtis Inc.

513.621.8895

1105 Western Ave. Cincinnati OH 45203

Contact: KJWW Engineering Consultants

Jon Mooney - mooneyjw@kjww.com

309. 788.0673

623 26th Ave., Rock Island, IL 61201