

# AV on the Top Floor

OPTIMIZING AV AND ENVIRONMENTAL SYSTEMS IN A DALLAS PENTHOUSE



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*by Don Kreski*

What kind of home does a retired engineer and CEO with a love of sports and entertaining build for himself? For the owner of this bright, sleek two-story residence on the top floors of a downtown Dallas high-rise, there were two main ingredients: great media and green systems.

When it came to the great media part, a multi-source video processor was installed to allow the homeowner to watch up to eight ballgames on giant screens in a media room and lounge. Additional big screen televisions and whole-house audio also bring sports and music to nine more rooms, four patios, and five baths.

As for the “green,” component, a system for daylight harvesting helps minimize the need for electric lights, and automated shading helps keep rooms cool during hot Texas summers.

According to Tony Militello, president of Carrollton, TX-based SoundImage, an all-digital infrastructure and Crestron audio/video control were crucial to making these dream systems a reality.

#### **Fantasy Football**

“Our client wanted the highest end technology, but he also wanted energy efficiency,” Militello explained. “We provided a 150-inch projected

image in his media room and 103-inch plasma in a game room. Each of these systems uses a large amount of electric power but by centralizing the audio and video distribution and working with the architect and builder on the lighting, heating, and cooling, we were able to balance out the overall energy consumption, resulting in an unusually efficient home.”

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video sources.

Set up this way, each image on the 150-inch media room screen is roughly the size of a 36-inch diagonal flat-panel display, and the homeowner can choose a number of configurations, including one image filling nearly half the screen with smaller images alongside of it or a quad with different games on. For the homeowner, DVPHD provides the ultimate fantasy football viewing tool.

"We also put 60-inch LED displays on each of the upstairs patios for guests to watch during outdoor parties," Militello explained. He says he considered weatherproof LCD displays, but the choices available weren't large enough. Instead, SoundImage technicians installed each display under a roofed area on the patio that allows all equipment to be sheltered from rain and snow.

Militello designed a 16-zone distributed system, bringing music or sound from the video system into every area of the home, even the master bedroom closet. For this distributed system, Militello used a Crestron CNAMPX-16X16 16-channel multi-room amplifier, tied to a Crestron BIPAD8 audio distribution processor for this whole-house system, feeding Triad Designer Series in-wall invisible speakers, plus JL Audio in-wall subwoofers.

In addition, SoundImage built four different surround sound systems. In the master bedroom, living room, and game room, they used Rotel RSX-1560 7.1 AV receivers, also with Triad invisible speakers and JL Audio subs. In the media room, SoundImage techs installed a McIntosh MX150 surround processor, MC207 amplifier, Bowers &



The SoundImage team, back row (l-r): Randall Larsen, Keith Holman, Tim Hughes. Front row (kneeling l-r): Tony Militello and Matthew Summer.

Wilkins loudspeakers, and JL Audio in-wall subs. "This is a beautiful audiophile listening room. The real deal... acoustically treated, a fantastic space," Militello said.

### All-Digital Systems

In designing the audio and video systems for this residence, Militello said that he and his staff decided early on to keep all signals in their native digital formats, switching and transporting them without compression.

"Crestron DigitalMedia was the best product for what we wanted to accomplish," he explained. "It's a finely engineered solution, and it's the only product that meets all of the HDMI mandates. Crestron was able to deliver exactly what our client needed."

Using Crestron HDMI pre-terminated cables, SoundImage routed each of the 16 video sources into a Crestron DM-MD16X16 matrix switcher, allowing the homeowner to send any source to any combination of TVs, as well as to the video processor. DigitalMedia's high-output architecture can handle more bandwidth than 1080p high-

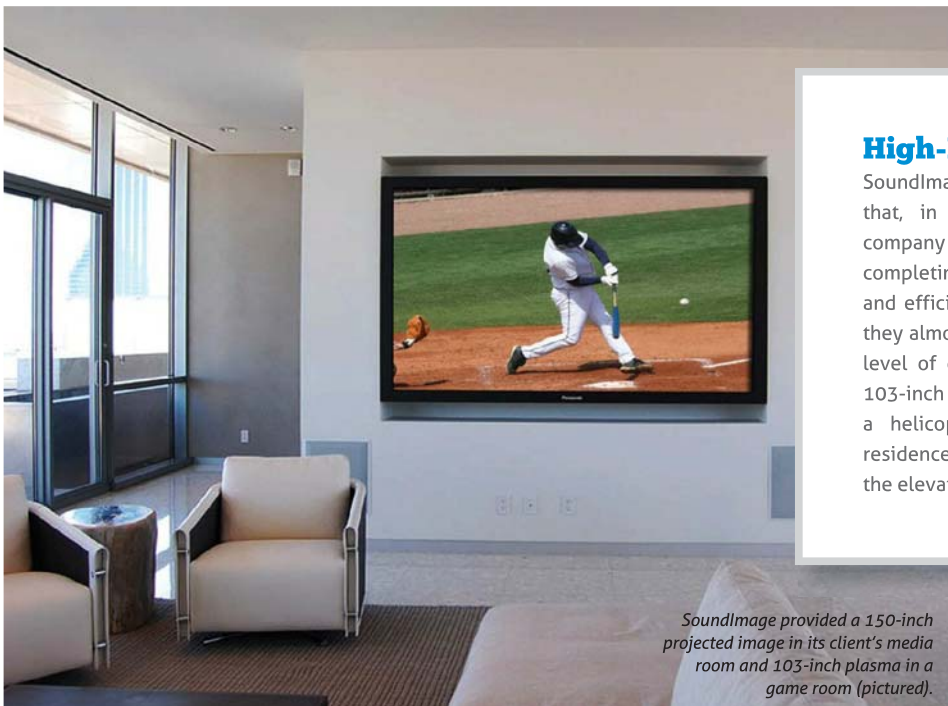
definition requires, so the system will be ready in future years when deep color 2K, and 4K video sources are available.

### Control Specifics

To save energy, daylight-harvesting initiatives were put in place. They tied sun sensors to lighting dimmers

via the AV control processors, allowing various lighting settings as daylight levels change.

The system also lowers shading automatically when sunlight is directly in the room, which



SoundImage provided a 150-inch projected image in its client's media room and 103-inch plasma in a game room (pictured).

### High-Rise Challenges

SoundImage's Tony Militello noted that, in a high-rise project, his company is always concerned about completing its work as smoothly and efficiently as possible because they almost always include an extra level of difficulty and delay. "The 103-inch TV, for example, required a helicopter lift to get to the residence since it would not fit on the elevators," he explained.

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Militello said makes a big difference, especially in the summer.

“The homeowner travels frequently, so the system automatically raises and lowers the shades even when he’s away,” Militello noted.

Militello outsources all of his control system programming, including this project, to Crestron CAIP, Bernard Morgan of Austin-based ICS+.

“Bernard is one of the best,” he explained. “For this project he built a user interface unlike anything we ever used before. The touchscreen displays are graphic rich and highly visual. The blueprint view of the two-floor residence and only the selections relevant to the areas chosen by the user are populated. It’s very intuitive. A novice can tell at a glance which zones and sources are being used within the entire unit and easily change them. The screens also fit nicely with the aesthetics of the home.”

SoundImage used a variety of Crestron in-wall, wireless, and handheld touchscreens and remotes, plus the Crestron Mobile Pro app for the Apple iPad, to control audio, video, heating, air conditioning, lighting, shading, fireplace, and an outdoor spa from anywhere in the world.

### A Happy Client and Integrator

This was SoundImage’s first Crestron DigitalMedia project, but Militello said that “the system was quite easy to deploy. Once we had the connections terminated and certified, the setup was a snap.”

SoundImage had the system fully online within two to three days, saving the integrators hours of programming time and physical labor, as compared to a conventional RGBHD system with the hundreds of additional terminations that would have been required, Militello noted. “DigitalMedia allowed us to be in and out of the residence far more quickly than previous systems, which in the end helped our bottom line and created a very satisfied client.”

And client feedback has been excellent, he added. “The homeowner appreciates the quality of the audio and video and the globalized control of his house. He can entertain his friends with the highest-end technology and manage the energy consumption of his home as well,” Militello said.

Don Kreski is owner of Kreski Marketing Consultants Inc. in Mt. Prospect, IL.