

Houston, Texas



Crestron Home Technology Streamlines Energy Management, Environmental Systems, Entertainment and Much More in This Texas Sized Automation Design

Background

When a client wants control of just about everything in his newly constructed luxury home - with no budget limitations - the result is one of the grandest home automation designs in the country. With a focus on going green, the environment-conscious homeowner wanted a user-friendly system that could provide energy management, control and monitoring of every power-consuming device throughout the three acre property.

The goal: constantly monitor every appliance in the house to assure optimal energy efficiency and operation. This meant

finding a solution to manage more than 100 devices, including water, gas and electricity.

Forty-two audio zones, 21 video zones and a seriously fortified security system, is just a sampling of the state-of-the-art technology that makes this 10,000 square foot Houston home one of a kind. The challenge of integrating it all into a seamless, easy-to-use interface was no less impressive.

The Solution

Houston-based integrator, Media Systems, Inc. was brought in to design and integrate a system to control the spectacular estate. The objective was to deliver intuitive, property-wide control of home entertainment, HVAC, lighting/drapes, pool/spa and 120 security zones.

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in the house that consumed energy. He also wanted instant access to every source in every room, and wanted everything to be as reliable as possible,” says Wynne Walker, Media Systems’ lead designer.

An advanced Crestron home technology system was implemented to provide a single-platform solution for controlling the expansive compound.

Systems at a Glance

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Eight climate zones are controlled using Crestron CHV-THSTAT programmable thermostats, with settings for each zone easily adjusted from any touchpanel. In addition, CLX-DIM 8-channel dimmer modules control 275 lighting loads, ensuring that environmental systems are controlled with optimal efficiency.

To make the property eco-friendly, the Crestron control system was integrated with an Agilewaves energy management system. Capturing data for 140 devices, this collaboration

enables detailed monitoring of the property’s energy consumption from any touchpanel. “Every appliance in the house is constantly monitored to assure proper operation,” says Walker.

Utilizing Crestron CNXRMCLV Room Solution Boxes, dispersing Blu-ray, iPod® and video game connections to multiple rooms was easy. Movies, music and gaming functions can be selected from a touchpanel or remote in the room, while the devices are neatly stored in the equipment room. In addition to simplifying installation, the clutter of bulky entertainment components scattered around the house was eliminated,

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Wynne Walker, Owner of Media Systems, Inc.

CEN-IDOCs allow anyone to dock their iPod and connect to the home’s audio distribution system. Blasting their favorite playlist to any speaker zone or combination of rooms, indoors and out, is simple. Occupants can search their music library by genre, artist, album and track, and even view album cover art from any touchpanel or remote,



Two Crestron iServers® take iPod listening to another level, enabling both music and video throughout the home's media system. With the iPod permanently docked in the equipment rack, iServer automatically syncs to iTunes over Ethernet, without having to manually undock and plug into a computer's USB port.

How the System Works

In the gym, Media Systems custom designed versatile cantilever mounts that place two TPS-17G touchpanels within reach, in front of the exercise machines. Any video source, including HDTV, can be easily selected and watched while working out or running on the treadmill. "We had to design touchscreen buttons big enough so it was easy to use while running," said Walker.

Eleven TPS-6L touchpanels are dispersed throughout the home and landscape. With some creative custom programming the owner is able to control up to 11 audio zones and 18 sources on each page, giving him limitless flexibility to appease everyone. "He can select more than one zone at a time, then choose the source and have it route to those rooms immediately," explains Walker. "It was tricky but it works great."

Three DirecTV receivers feed five TVs, including three 65" Sharp LED screens, to create the spectacular media room. In addition to the media sources in the central rack – including

four more satellite receivers, several cable boxes, a Netflix box, and Blu-ray players - there are multiple signals to route between all the screens.

A TPS-6X touchpanel enables viewers to direct any AV source to any screen with the tap of button. "They wanted the ability to switch audio on the fly, so if he had three football games playing at once he could immediately switch audio without interfering with the video," Walker says. "It took a lot of time to get this right and the TPS-6X turned out to be the perfect panel to accomplish this."

The homeowner is a big sports fan, so it was only fitting that all the TV's and touchpanels in the house can display a football game simultaneously. One button allows this to happen. "It's a unique experience during a party to see all TVs and the 15 touchpanels throughout the home with the game on," explains Walker.

Complete freedom of ambiance is only a button touch away with Crestron lighting control. "Unlike most lighting systems, we gave the client the ability to control every light and scene from a wireless touchpanel," Walker points out. "Because of its size and portability, the TPMC-8X WiFi touchpanel was the best fit." From the touchpanel, the homeowner is able to quickly learn his own lighting scenes, select multiple preset lighting scenes, and have total control over all indoor and outdoor lighting.

Security on the compound is unsurpassed in a residential installation and includes door phones, 20 CCTV cameras, and deadbolt sensors. Two Panasonic IP PTZ cameras are controlled via IP and are visible on all Crestron touchpanels. Images can be viewed in fullscreen mode as the transparent buttons control their movement.

Comprising 120 security zones, TPS-6Ls enable the client to view 18 zones per page. Occupants can see each zone's status and bypass any zone with the press of a button. The client also requested to know when every exterior door was locked or unlocked, not just opened or closed. Working with the security system vendor, Media Systems came up with a solution that lets occupants view door lock status right on the touchpanels. With a glance on one page the client can quickly see which doors need to be locked.

Integrated Viking and Avaya doorphones enable the system to switch to the closest camera automatically, allowing occupants to see anyone at the door without even pressing a button. Opening and closing the garage doors can even be done from the touchpanels.

The house is in a gated community and the client wanted to see people entering the neighborhood from his house. With the guard shack a half mile from the house, an IP encoder/decoder allows viewing of the community cameras from any touchpanel or TV in the house. The cameras display full-motion video and work in real time via the internet.

Using Crestron XPanel, the touchpanel GUI is replicated on any remote computer to allow control of all home systems and access to any media source, from anywhere.

The system also provides extreme service levels and peace of mind. According to Walker, "the system constantly reports back its current condition to our office, so many times we know if there is a problem before our client does."

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