RESIDENTIAL CASE STUDY

ATLANTA INNOVATION HOUSE SHOWCASES LATEST TECHNOLOGY AND DESIGN FOR THE MODERN HOME
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RESIDENTIAL INSTALLATION
LOCATION: JOHNS CREEK, GA

To demonstrate technology’s role in a modern home, Insidesign contacted Atlanta Audio Video Solutions (AAVS) to incorporate a variety of different products and systems. In addition to standard flat-panel TVs, the team added smart light switches, door locks, thermostats, and a high-def A/V distribution system featuring a Yamaha player piano as an available music source. Tying all of the pieces together is a Control4 HC-800 home control system.

It’s not often interior designers look to custom electronics (CE) professionals to join forces on a project. But for its ‘Innovation House’, the designers at Atlanta-based Insidesign, willingly incorporated a slew of innovative home technologies. The 11,000-square-foot farmhouse in Johns Creek, Ga., serves as a showcase of innovative design and technology, and is open for prospective customers, builders and architects to visit for ideas and inspiration.
Seven in-wall Control4 touchpanels and two portable units, as well as an iPad running Control4’s MyHome app are used to operate the various systems.

Because the house was designed without a particular owner in mind, AAVS intentionally kept the menu of commands very basic. There are no special scenes that can be launched from the touchpanels and app, currently, says AAVS’s Josh Levetan. “Right now, we’re using the touchpanels to show off their ability to work like video intercom stations. When someone presses the button on the station at the front door, their image instantly appears on screen of touchpanels and TVs. A press of a button on the touchpanel signals the Z-wave doorlock to unlock. People really seem to like this feature.”

Another unique part of the house is a golf simulation room that doubles as a home theater. The same screen and projector combo that serve the simulation system can display movies, and is complemented by a 5.1 surround-sound system for this application.

Probably the most creative implementation of technology involved a major piece of the interior design—a grand piano. A Yamaha DC2XE3 Disklavier piano ties directly into a WyreStorm Pro Plus MX-0808-PP HDBaseT Class B matrix switcher via standard category and HDMI cabling, which enables songs from the player piano to play through the in-ceiling Truaudio speakers installed throughout the residence.

Also connected to the MX-0808-PP, one of the sources available is an AppleTV, and accessible through this component is the Yamaha’s music soft website. Using an iPad, a user can log on to the site and push music from concerts and internet radio stations to the piano. If the concert has accompanying video, it automatically displays on the home’s flat-panel TVs. “This setup is something we’ve never done before, and it’s by far my favorite part of the house,” says AAVS’s Brian Carter. Other instruments, like electric guitars and microphones, can join the concert and be heard housewide by plugging into a Lexicon FW810 mixer that’s stationed in a glossy black rack next to the piano.

Of course, with the right system in place … and the right cabling … anything is possible for the Innovation House in the future. The Control4 processor can be programmed by AAVS to provide the eventual owners of this house with greater control over the home electronic systems, and “we wired this home to the extreme,” says Carter. “In every room where we thought would be a logical place for a touchpanel we pulled the appropriate wire, and on each TV location there is more wire than is necessary now, but it’s there to support any technology that’s coming down the pipeline.”
The Rack  
*Top to Bottom*

**1. Netgear ReadyNAS hard drive**  
This state of the art control system is made truly functional with the help of the mass storage ReadyNAS by Netgear. This bank of mega memory not only stores every file you could imagine with space left over, but it incorporates easy ReadyCLOUD for remote access file management, media streaming and system backup functionality built-in, a real bonus.

**Behind top rail:**

**2. Netgear GS752TP network switch**  
A quite leader in this powerhouse stack, the Netgear GS752TP 48 port network switch provides connectivity to make this complex system react with nimble agility. With the many POE (powered over Ethernet) devices throughout the home, this switch handles complex data distribution with ease and gigabit speed.

**3. Control4 HC-250 Home Controller**  
This is the real brain of the system offering control at an unbeatable value. Great for single room control platforms, universal remote replacement or the best way to provide on screen control to every TV in the home.

**4. Control4 IO Extender**  
With the size of Innovation House and number of devices, the IO Extender adds more control capacity to the HC-250 with extended IR and serial outputs making this control system something from the next generation.

**5. Mi Casa Verde Vera Lite**  
Interfacing with the z-wave technology in the RF light switch controls from Cooper wiring devices was made simple with Mi Casa Verde’s Vera Lite controller. This small, affordable box magically connects all the lighting controls in the home to the central control system.

**6. Control4 Wireless Music Bridge**  
The newest kid on the block, the wireless music bridge brings enjoyment from your phone, tablet, or computer through the Control4 system. Having wireless connectivity with streaming music services delivers maximum flexibility for music listening.

**7. WyreStorm MX-0808-PP Video Matrix**  
Having to go to a sports bar to get live action on multiple TV's is now a thing of the past. The Wyrestorm MX-0808-PP offers affordable access to Class B HDBaseT platform allowing any 8 HDMI inputs to be distributed independently and simultaneously up to 70m/230ft to any of the 8 HD output displays connected to the matrix.
8. (2) Power Controllers

9. (2) Surround Sound Amplifiers

10. Control4 Audio Matrix Switch
    Video is not the only thing that can be distributed seamlessly. The Audio Matrix Switch enables up to 16 different audio sources in 16 different zones for incredible music distribution with matrix switching to gain control for every zone. Listen to anything you want anywhere, anytime.

11. (2) Control4 Multi-Channel Amplifiers
    Speakers in every room of the house are not overrated. Walking from outside to inside, from room to room with even sound or separate audio inputs can be euphoric. The multi-channel amplifiers give the punch and distribution to every, almost invisible, in-ceiling speaker from Tru Audio.

12. Tripp Lite UPS
    Avoiding damage to all the state of the art equipment in this control rack is nonnegotiable. Atlanta Audio Video Solutions chose Tripp Lite’s Smart1500 LCD UPS to provide backup power to this impressive lineup. Providing up to 75 minutes of backup power to the entire system is no problem for this low profile unit.

13. Tripp Lite SRCOOL 12k
    It’s not just Atlantans that function better with a little air conditioning. This high powered rack is full of complex computer systems that need to stay cool to run at optimal efficiency, a perfect job for the Tripp Lite SRCOOL 12k. This portable AC unit created specifically for this application easily keeps the generously sized AV room at perfect temperature with ease.
    Shown in front Control4 portable touch screen and designated remote

14. Cleerline Technology and Planet Waves connectors and cabling
    You can imagine the complexity of connecting all of these cutting edge components could make a bowl of spaghetti look organized. Thanks to the innovated products from Cleerline Technology and Planet Waves, all audio lines and hdmi cabling were easily custom sized for a neat and clean installation with universal connectors.

**WITH THANKS TO..**

**Atlanta Audio Video Solutions, LLC**
http://atlavs.com/

**Chip Wade**
http://www.chipwade.com/about/

**Electronic House, Oct25, 2013**
http://www.electronichouse.com/article/interior_designers_embrace_technology_and_home_automation

**Insidesign – Integration**
http://myinsidesign.com/

**Insidesign Innovation House**
http://showhouse.myinsidesign.com/home-automation/