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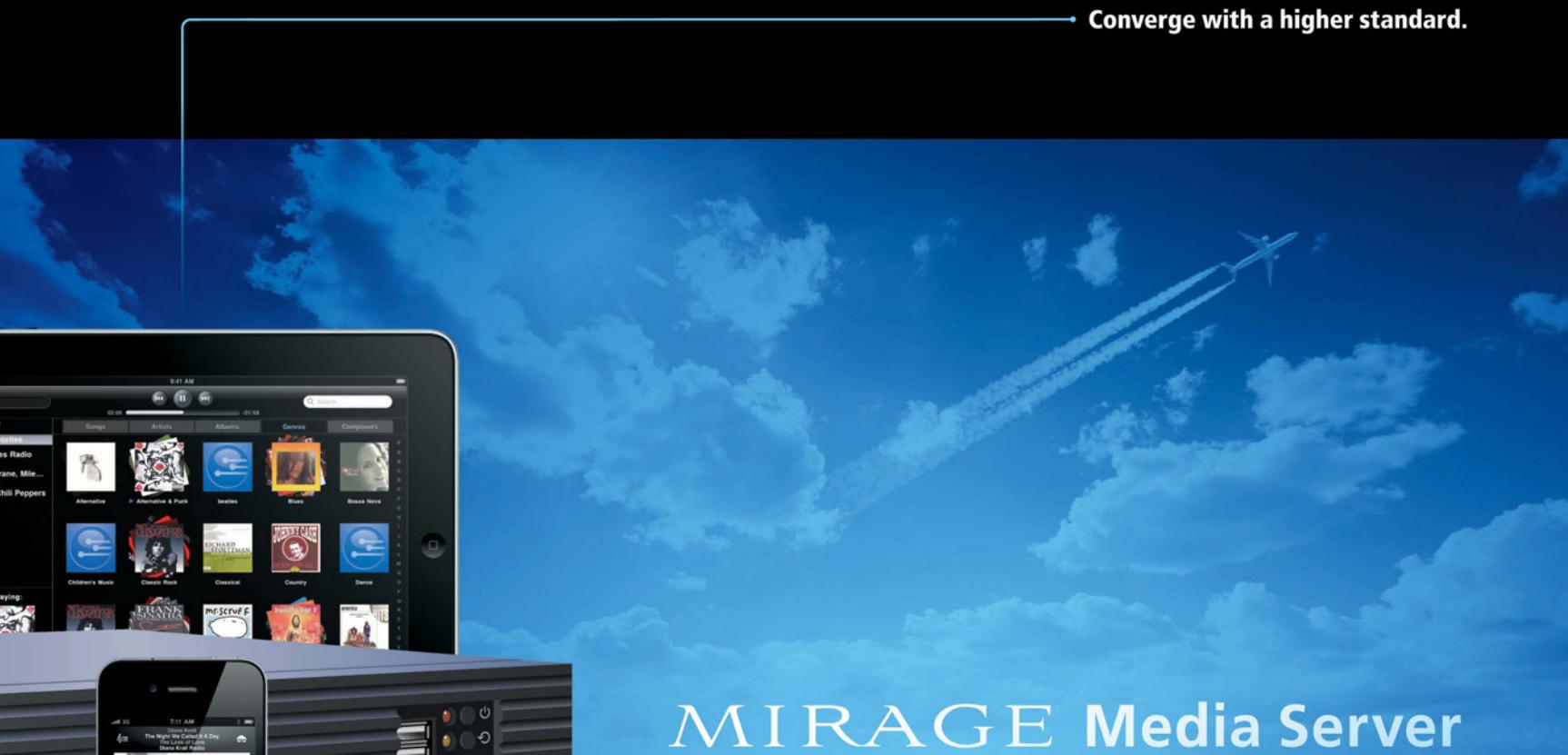
How CRM Software  
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## Touchscreen TAKEOVER

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tunein  
RADIO



**MMS 2**  
2-Source Digital Audio Player

**MMS 5**  
5-Source Digital Audio Server

 **AUTONOMIC**

# behind the business Q&A

## 14 Legendary audio technology

inventor Bob Carver may have stepped away from the day-to-day operations of Sunfire (the company he created and continues to consult for), but his passion for audio lives on through the company's general manager, Mark Weisenberg, who took a moment to chat with *RS* recently.



# columns

**16 HOME THEATER** Due to the laws of chaos associated with the myriad pieces of gear and interconnections that make up a sophisticated home theater, you should prepare for a checkup visit with your clients at least every six months, and make it part of your recurring revenue stream.

**18 THEATER DESIGN** In the interest of raising the bar and empowering more electronic systems professionals to walk the walk, Sam Cavitt describes some of the essential theater design tools available and how companies can integrate them into their businesses.

# products

**40** On the surface, Boston Acoustics' Model Tvee 25 soundbar speaker and wireless subwoofer appears to be as purely "consumer" as any product could possibly be. It boasts surround sound(ish) performance in a simple, stylish, truly plug-and-play package, eliminating the need for tons of wires, lengthy setups, and, well... you. But if you've pooh-poohed soundbars in the past, it may be time to make amends.

**42** John Sciacca's previous experience with wireless (or powerline) HDMI systems has been spotty, so when he volunteered to test Peerless Mounts new HD Flow, a wireless multimedia kit designed to transmit 1080p HDMI signals up to 131 feet, he warned Peerless that he would try and break it.

**44** Find out the latest developments from Lutron, IOGEAR, Harman, Atlona Technologies, and many others in this month's New Products showcase.

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# features

**20 TOOL TROVES** Having specialized gear makes an ESC's life a lot easier, and more importantly, allows him/her to finish a job more neatly and more efficiently. At every step of the installation, from the pre-wire to trim out and dressing an equipment rack, to finishing the audio and video calibrations, there are a number of tools that integrators rely upon.

**24 SUCCESS IN TRIPPLICATE** Universal Systems Inc., of Ft. Worth, TX recently completed a \$410,000 project for a couple's newly constructed home overlooking Lake Travis in Austin. At 4,500 square feet, the Mediterranean-inspired residence is the smallest of their homes but packs a punch.

**28 COVER STORY: TOUCHSCREEN TAKEOVER** The touchscreen is an ever-critical component of any home installation, but recent consumer trends have altered the way home systems are controlled, or at least how we think about controlling them. *RS* spoke to manufacturers about their latest touchpanel technology and how the explosive mobile and tablet device market has affected their approaches to new product design.

**32 INSTALLATION WATCHDOG** In just a year since ClearOne launched its Tech Sales pre-sale support program, the audio conferencing products manufacturer said it has received very positive response from dealers, many of which credit the system as having helped them win bids.

**36 DOING MORE WITH LESS** You've probably heard of Customer Relationship Management (CRM) software before, but you may not know what it is or what it really does for your business. Many people consider CRM to be a sales-related tool, but effective use of a CRM platform can provide efficiency throughout a company's operations by improving communications and workflow.

**38 TAKING g! TO THE BIG EASY** Dynamic Audio Video recently completed the first installation of an ELAN g! system in southern Louisiana after becoming the first dealer to take delivery of a dealer demo system. With 10 rooms of audio, 12 thermostats, lighting control, a home security system, surveillance cameras, and whole-house music, the total cost for the project came to around \$20,000.

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BY JEREMY J. GLOWACKI

# Ceding Control

"Pay no attention to that man behind the curtain!"

—The Wizard of Oz

Traditionally integrators have been forced to design inflexible interfaces requiring complicated reprogramming whenever a client requested the slightest change.

In an ideal world, an ESC would program the complicated bits of a user interface and control systems, then empower the end-users to make slight adjustments to macros, lighting scenes, and timed events themselves. Unfortunately, the complicated nature of control system programming almost always made this dream impossible.

These days, as our industry struggles to compete against the flashiness and intuitive design of Apple and Droid products on the market, that old way of thinking (and programming) is changing for the better. ESCs, who can no longer afford to hide behind a mysterious veil of programming, like the Wizard of Oz, are discovering new methods of programming, and new IP-based hardware that allow more flexibility for the end user.

Last month, I spent a day in Harrison, NY, where I learned just about everything there is to know about URC's much-anticipated Total Control line of whole-house automation and control products. The system, which is designed to compete with products like Control4's automation package and Crestron's Prodigy line, consists of network-based user interfaces, whole-house audio, network audio entertainment, lighting control, climate control, energy monitoring, security management, and camera surveillance. Some of what URC is doing is not so revolutionary, yet it is a huge leap forward for a manufacturer exclusively known for its remote control and wall keypad products.

What really caught my attention during URC's presentation was this statement from content development manager Russ Hoffman: "We're going to put a lot of power in end users' hands."

That sentence was part of an explanation of URC's revamped CCP programming software for dealers, which integrates event timers for certain home automation macros within the Total Control line. Although the design of



these macros is still fully in the hands of the URC dealer, the client has been given much more control over changing the start and stop times for events such as sprinkler system on/off, night light on/off, "good morning" scenes, etc. The integrator programs the macros, and the customer, with the aid of a built-in astronomical clock, can set start and off times themselves.

Another empowering gesture was URC's decision to offer off-site control to a client's system, but only after the client has enabled this access by clicking one "button" on his or her user interface.

All of this may sound trivial, but even as a veteran of this industry, I'm still a consumer who likes to have control of the products that I own. I think that the flexibility of new technology, like the IP-based system that URC began shipping last month, will enable our industry to remain competitive and relevant, even in the age of the iPad.

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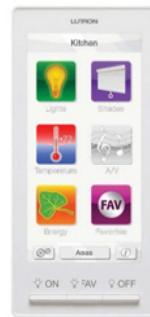
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## Get the Full Scoop on the Following News Stories at [residentialsystems.com/0611](http://residentialsystems.com/0611)

### Lutron Adds HomeWorks System Components

Lutron is now shipping additional system components for its HomeWorks QS total home control system, including the Dynamic Keypad capacitive touch interface and an auto-adjusting, phase-adaptive dimmer that works with all popular load types, including dimmable CFLs and dimmable LEDs.



### Bitwise Updates Project Editor Software

Bitwise Controls has updated its Project Editor software to version 1.4, bringing two-way capabilities to the BC4X1 automation controller and BitWise Touch app for Apple iOS devices. Two-way communication allows users to view status feedback from connected devices like security, lighting control, and HVAC systems

### Crestron Adds to International Offerings

Crestron has released the CLCI series of in-ceiling lighting dimmers and switches for 230-volt international installations. Without running control wire throughout the home or building, the CLCI series of components allows the conversion of any fixture into a wireless controlled light.



## TWICE

Now on [twice.com](http://twice.com)

### Xantech Pitches Products for New Market Realities

by Joseph Palenchar

Xantech is launching new products designed for what it says are the new realities of a downsized custom-installation market. The new realities include residential systems-integration companies that have downsized their staffs, Xantech's president, Graham Hallett said. Another new reality is the diversification of residential installers into the commercial market to offset lost residential opportunities. With the lines blurring between residential and commercial installers, Xantech is introducing products that will help residential installers cross over into the commercial market and commercial installers enter the residential market.



Now on [systemscontractor.com](http://systemscontractor.com)

### The Plow and the Field Part 1

by Danny Maland

The proper deployment and operation of electronic devices can mitigate, but not eliminate undesirable sonic characteristics arising from the acoustical properties of a given space. (You can have a great horse and plow, but a field that's just plain tough to work will always be that way.) So—why talk about this? In my opinion, there is a strong temptation present in tool-centric disciplines (mechanical work, branches of engineering, audio, etc.) to focus very intently on solutions brought about by the creation and use of more sophisticated and/or refined versions of the tools.



### {BlogBits}

Find the full story at [residentialsystems.com/0611](http://residentialsystems.com/0611)

### Why Would You Fire Your Sales Force?

A few manufacturers have chosen to terminate their representatives (in fact, their entire sales forces)...these actions do highlight the poor choices that some manufacturers are making at a time when they need experienced sales and service the most. It is no secret that sales are down and that many customers have scaled back or have closed their doors entirely. Someone is always to be blamed, and the sales force is always the first target.

—Raymond Wright

### Saving Energy on Earth Day and Every Day

Lighting accounts for almost 15 percent of the average homeowner's monthly electric bill, according to the U.S. Energy Information Administration. If every home in the U.S. installed two dimmers in place of two standard light switches, the potential annual savings could be \$1.2 billion in electricity and close to 25 billion pounds of CO<sub>2</sub>.

—Derek Dellinger

### SoundCast is Finally Making Itself Heard

Until now, SoundCast Systems' relative obscurity was deliberate to some degree, as the company worked to establish its footing over the past five years with an innovative wireless speaker system. Now that the Chula Vista, California-based manufacturer has established itself with new distribution plans and full product line, it has begun sharing its story and making a confident push into the custom installation and specialty retail channels.

—Jeremy Glowacki



### ResiTweets

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@YamahaHomeAV #Yamaha RX-V3900 owners, be sure to get the latest firmware (version 1.16) at <http://4wrd.it/RXV3900> improves SIRIUS Internet radio and more

@ProgressiveHome Our new showroom theater on target for next Thursday. The theme...studio screening room on a budget. No frills, just a perfect room.

@RuncoLive New blog: CEDIA 2010 Electronic Lifestyles Winner: Barrett's Technology Solutions <http://bit.ly/iKKOYO>

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2-GANG TVBU505 & CED130



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2-GANG



2-gang DVFR2

2-gang TVBU505

3-GANG



3-gang TVBU507

4-GANG

4-gang TV BOX has two additional built-in mounts for low voltage, data/media connections.



Non-metallic TVB713



TVB713



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# projectiondesign Acquires U.S. Distributor

Norway's projectiondesign has successfully concluded negotiations on acquiring long-standing partner and distributor projectiondesign LLC, the exclusive distributor of projectiondesign products in North America since 2004.

"North America represents the largest single market for our world-class projection and display technologies, and we are consistently impressed at the

scale, innovation, and dynamic ways in which they are used by our partners," said executive vice president, Åsmund O. Fodstad, who was recently appointed by projectiondesign to drive its global growth.

According to Gary Plavin, president of projectiondesign LLC, "It's a natural progression for us to recognize the additional strength and synergies from integrating our operations with the head



*The Norway-based projectiondesign has acquired its North American distributor.*

office in Norway and accelerating our growth in the Americas."

North American sales, support and service functions will continue to be located in the Teterboro, NJ, U.S. headquarters.

## Lenbrook Keeping Two Rep Firms

Lenbrook America will retain only two independent rep firms as part of its plan to begin selling its NAD and PSB home audio brands direct to retailers.

Lenbrook is also going direct in selling

the Tivoli Audio brand, whose marketing functions continue to remain in the hands of manufacturer Tivoli Audio.

Lenbrook will retain the NuTech Group for the sale of NAD, PSB and

Tivoli Audio in the mid-Atlantic region and Connected Marketing for the sale of Tivoli Audio in the metro New York region, the company told Residential System's sister publication TWICE.

## MSE Audio Acquires Rockustics

MSE Audio has acquired rock speaker product manufacturer Rockustics.

Founded in 1987 by Tony Mulé, Rockustics designs and manufactures weatherproof speakers. Nearly 30 products are available in the line, which includes rock speakers, omnidirectional speakers, subwoofers, speakers built into garden planters, and speakers designed for landscaping wall placement.

MSE Audio's Induction Dynamics and Phase Technology sales teams will manage sales of Rockustics products for residential customers, and the



*MSE Audio's Induction Dynamics and Phase Technology sales team will now manage sales of Rockustics' residential rock speakers.*



SoundTube Entertainment sales team will do so for the commercial marketplace.

"All of us at Rockustics are excited to become part of the MSE Audio family," Mulé said. "The synergy that will come from our combined engineering teams will enable us to produce groundbreaking speaker products for both the residential and commercial markets."

## Vermont Tech Partners With ESPA

Vermont Technical College has signed on to offer the Electronic Systems Professional Alliance (ESPA)'s curriculum and certification program as an authorized training partner.

The Technology Extension Division at Vermont Tech provides customized training and workforce development in leadership and technical areas, which aligns with ESPA's mission of building a foundation for a career-ready

workforce.

"We look forward to our new relationship with ESPA. We are working to incorporate the ESPA curriculum and principles into an existing program in digital home technology, and the students are excited by the industry credibility the ESPA EST certification will provide," said Jay Paterson, director at Vermont Tech.

ESPA authorized training partners receive numerous benefits including discounts on training module books, free online pre-test assessment, and instructor resources. In addition, scholarships are available to students pursuing a career in the electronic systems industry through the NSCA Education Foundation. The scholarship covers the cost of the ESPA Certification exam.

## CCS Changes Remote Monitoring Pricing Model

Certified Cyber Solutions has significantly altered the pricing model for its Home Cyber Shield Remote Monitoring and Secure Access system, which includes the current software leasing options, as well as offering dealers a one-time purchase plan for under \$3,000.

According to the company, dealers can now use the Home Cyber Shield for secure remote access, advanced system diagnostics, and remote event notification without having to pay yearly recurring fees. CCS will continue to offer its recurring revenue option to companies with well-established service plans already in place.

## BrandSource Board Elects Chairman

Andy Kersey has been elected chairman of the board for BrandSource's retailing group.



Kersey, who has been a member of the 4,000-plus independent dealer organization since 1991 and has served in various positions on its board since that time, also manages Hamlin & Kersey Home Center & Audio-Video Systems in Corbin, KY.

Kersey said he has plans to help BrandSource develop initiatives designed to benefit the neighborhoods and local communities in which its members do business.

"Developing additional programs to reach 'Main Street' in all of our cities and towns would build positive and mutually beneficial relationships between our members and their customers."

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# Sony Veteran Norio Ohga Passes

Last month, the Consumer Electronics Association announced that Sony's Norio Ohga had passed away at 81.

"Mr. Ohga changed Sony, created new products and transformed how consumers received entertainment and information," said Gary Shapiro, CEA president and CEO.

Ohga spent 44 years at Sony, where he was integral to almost all of the company's major



Norio Ohga

technology and business achievements. Ohga became president of Sony Corp. in 1982 and chairman and CEO in 1995.

Ohga retired from Sony's board in January 2003, when he was named honorary chairman.

## Crestron Names Residential Regional Sales Managers

Crestron has appointed Michael Frackman as residential regional sales manager for South Florida and the Caribbean, and Darrell Singleton has been named to the same position for the Texas territory.

Frackman joins Crestron from Onyx Engineering as systems integration specialist.

Singleton, a Certified Green Professional (CGP) and CEDIA Registered Outreach Instructor (ROI), joins Crestron from Electrolux Central



Michael Frackman

Vacuum Systems, where he was southern region sales manager. He began his career at Sanmina-SCI Corporation where he managed high profile projects and facilitated communication between design engineers and procurement management, both internally and externally as program manager. In his tenure in sales, Singleton managed multi-home projects, organized technical training seminars, and provided training on product and sales development.



Darrell Singleton

## RTI Adds Regional Sales Manager

Remote Technologies Incorporated (RTI) has named Trevor de Maat as eastern regional sales manager, where he will be responsible for the sales and marketing activity of RTI's control solutions in the eastern U.S.



Trevor de Maat

"We are very excited to welcome Trevor to the RTI team. He has a proven track record of success in the professional AV market, where he has held key management positions for both integrators and consumer electronics suppliers," said Pete Baker, vice president of sales and marketing for RTI. de Maat comes to RTI from AVAD—a home integration solutions provider—where over the last eight years he served as territory sales manager and regional sales manager, northeast.

"Joining RTI is a very exciting opportunity, and I'm looking forward to working with the team and our extensive network of dealers," de Maat said.

our extensive network of dealers," de Maat said. "RTI has listened to market demand and stayed at the forefront of the industry with easy-to-program, intuitive solutions, remote access on mobile devices, and cost-effective audio distribution. At the same time, the company has worked very hard to support its dealers with award-winning educational and incentive programs. RTI offers a great culture of innovation, and I'm happy to be a part of it."

Previously, he held the position of internet audio consultant with Audio Outlet, where he helped launch the database-driven, dynamic e-commerce website. In 1996, de Maat founded TreMa Sound, Inc. where he served as market development manager, managing day-to-day activities associated with introducing new product lines to the U.S. hi-fi market.

"Joining RTI is a very exciting opportunity, and I'm looking forward to working with the team and our extensive network of dealers," de Maat said.

### CAREER TRACK



Shawn McLoughlin

**Shawn McLoughlin** joins **Intelix** as a senior account manager where he will manage and develop the company's growing customer base. McLoughlin most recently served as the sales manager for a major industry distributor.



Chuck Ruffino

**Lab X Technologies** has promoted **Chuck Ruffino** to vice president of engineering. With more than 20 years of networking and connectivity experience, Ruffino joined Lab X in 2010 as an embedded digital engineer.



John Hatcher

**SnapAV** has hired **John Hatcher** as manager of the company's Episode Power Products line. **John Hatcher** possesses 14 years experience in the consumer electronics industry. His product development and sales background includes identifying new business segments, opening new markets and launching new products for Monster Cable, GE / Jasco, Panamax and Belkin.

### REP/DISTRIBUTOR

**Tri-Ed/Northern Video Distribution** has added **Panasonic Business Telephone Systems** as a vendor partner.

**ClearOne** has appointed **Power Marketing** of New Milford, NH, as its New England sales representative for NetStreams residential AV distribution and control products.

**Savant Systems** has appointed **RGB Communications** as its distributor for the UK marketplace.

**Powerline Control Systems** has signed distribution agreements with four distributors: **AARTech** in Toronto, Ontario; **MRI Direct** in Plainville, CT and Marlborough, MA; **Royal Systems** in Melville, NY; and **TechSource Distributors** in Philadelphia, PA. All four distributors will offer a complete array of PCS products.

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- Fewer service calls
- More profitable installs



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## Discover all the benefits of the J35 power conditioner with battery backup that will make your business better.

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Introducing the new J35 power conditioner with battery backup, from APC by Schneider Electric. Engineered specifically to protect sensitive, high-end home AV equipment against all power threats, it eliminates interruptions, enhances system performance, and guards against lost presets, missed DVR recordings, corrupted hard drives, and damaged display bulbs. Yet it's the only all-in-one solution on the market that starts at the same price as most power conditioners without a backup. And that means your customers don't have to spend a fortune to protect their valuable equipment that already cost them a pretty penny.

### Your installation + APC J35 = happy clients

Your clients' experience with your installation begins and ends with power. Rely on the new APC J35 power conditioner with battery backup to keep the system up and running regardless of what happens to the power. Only APC by Schneider Electric delivers a trusted combination of AV and IT experience—and the pure, uninterrupted power your customers deserve.

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Guaranteed protection from damaging power transients and performance-affecting EMI/RFI noise interference.



#### G Type rack-mount power filters

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# Back Home Again

## CEDIA Revamps EXPO Offerings for Its Return to Indianapolis



From a new airport to more hotels and restaurants, you may be surprised at the changes to Indianapolis since 2005.

Registration for CEDIA EXPO 2011 is now open, so it's time to start planning for a return to the show's former stomping ground in Indianapolis, September 7-10. Since Indianapolis last hosted the EXPO, in 2005, the city has seen considerable growth and change.

The combination of the new multi-purpose Lucas Oil Stadium and an expanded Indiana Convention Center means Indianapolis offers 3.4 million square feet of exhibit and meeting space. Within that space, this year's CEDIA EXPO will prepare attendees to take advantage of every overlapping technology of the integrated home.

### Expanded Education

CEDIA has taken the best of what CEDIA EXPO has to offer and expanded it. Once again, this year CEDIA will offer the \$299 Members Only Education Pass, enabling participants to take as many courses as they can fit into their schedule. This year's course offerings include over 30 new and revised courses. To see a full list, visit [www.cedia.org/expo](http://www.cedia.org/expo), roll over Attendee Info and click on What's New. In addition, CEDIA has created a new course selection tool to help you make the most out of all courses offered at CEDIA EXPO. This new resource helps you simplify your education purchase decisions and recommends courses based on your interests and business needs. The course selection tool provides a defined list of options that are tailored specifically to you, your employees and your business. Access the course selection tool at [www.cedia.org/expo](http://www.cedia.org/expo) in the Attendee Info area. In addition, all courses offered at CEDIA EXPO 2011 have been categorized to help you make smarter decisions based on business goals, strategies, and job function. Categories include:

- *Business Growth.* Finding it hard to grow your business in the current economic climate? Courses in this category are designed to help you diversify and strengthen your business.
- *Operational Excellence.* Is your business running as smoothly as you'd like? Courses in this category will help you develop your day-to-day

operations so that your company is functioning efficiently.

• *Emerging Trends.* Want to know more about what's to come for the electronic systems industry and how it can benefit you? Courses in this category will introduce you to the latest upcoming technologies and trends and help you implement them into your business plan.

• *Technical Excellence.* Striving to execute projects more productively and with less time? Courses in this category will help you master your technical and design skills.

• *Forging Alliances.* Looking to develop professional relationships that will directly help your business thrive? Courses in this category will help you build and strengthen business relationships with industry professionals, peers, customers, and industry partners.

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The Future Technology Pavilion returns to the CEDIA EXPO show floor for a second year, focusing on new technologies for the kitchen, bath, bedroom, game room, and garage. Some of the products on display in this year's pavilion include smart appliances, wireless power for cooking and charging, and immersive gaming. Make sure your CEDIA EXPO schedule includes a trip to the Future Technology Pavilion to gain insight on what you need to learn now to profit later.

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### More Online

#### What's New in Indy

To find out what else is new for CEDIA EXPO's host city Indianapolis, including the best restaurants, hotels, transportation, and parking options, visit [www.residentialsystems.com/0611](http://www.residentialsystems.com/0611).



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# Sunfire's Torch Bearer

## GM Mark Weisenberg Wants to Make Audio Cool Again

BY JEREMY J. GLOWACKI



Legendary audio technology inventor Bob Carver may have stepped away from the day-to-day operations of Sunfire (the company he created and

continues to consult for) but his passion for audio lives on through the company's general manager Mark Weisenberg, who took a moment to chat with *RS* recently about his company's relatively new home within Nortek's AVC Group, about his take on current consumer tastes, and how Sunfire's new products have been designed with those in mind. Here are excerpts from that conversation:

### On making audio exciting for a cost-conscious consumer

"Audio is, to a lot of consumers today, pretty boring, because nobody, for example, looks at an iPad and considers the quality of its sound. It's just a cool product that people love to find uses for. From a category perspective, it might appear to be boring, but the trend for specialty dealers that are

both brick and mortar as well as custom installers is to accentuate audio and sell more high-quality audio than ever before, and that's what Sunfire does for a living. And audio systems today have to be better than ever because the choices of content are so much wider than ever before."

### On why the evolution of consumer electronics is good for the audio business

"The evolution of technology is good for our business, and the evolution of wireless technology and the connected world that we're all living in is finding new opportunities for audio that we never had before. For example, the relevancy of a small subwoofer is much higher today than ever before. People are putting stuff in their



A passion for audio is evident in the leadership style of Sunfire general manager Mark Weisenberg.

house that is small, like an iPad or touchscreens, things that don't take up space but enhance the enjoyment of their living space. So small form factors in audio make perfect sense, because it goes a long way to what a consumer thinks is cool. But people still want good quality audio. And the thinner the TV sets become, the worse the sound is, which opens up opportunities for dealers to present good-quality audio products."

### On the motivation behind Sunfire's new Dynamic Series

"While we still have people that will pay more for higher quality audio, the mass market is looking for more product for less money, so we developed the Sunfire Dynamic Series or SDS, utilizing Sunfire digital amplifier technology for the first time in the history of the company. Why did we go to digital amplifiers? Because the technology has reached a point where we can fine-tune the sonic characteristics to match Sunfire's requirements and to comply with the customer's needs for subwoofers that perform equally well with all kinds of content, yet without the price of the legacy Sunfire product. All of the subwoofers we tested, as their power output increased,

so did their distortion, and as their distortion increased, their linearity was destroyed, so the musicality of the subwoofer was minimal. We spent a long time working on frequency filtration design, distortion that goes down as the output increases, while maintaining linearity. It was a huge science project for us, because nobody had ever approached it like this before."



The epitome of Sunfire's focus on smaller, yet high-performance, speaker designs is the Atmos subwoofer, which features a 6.5-inch woofer paired with an asymmetrical cardioid surround.

### On the reaction to the company's new HDS8 mini subwoofer

"It's blown people away when they get this little eight-inch HDS8, and they hook it up and listen to it. The first thing they say is, 'Wow this is really light; it's not going to perform very well, because digital amps are so much lighter; they don't have a transformer!'"

### On the decision to stop manufacturing receivers and preamps

"While we continue to develop speakers, subwoofers, and amplifiers, this year we decided to temporarily move away from receivers and preamp processors. As a small audio manufacturer with parts prices going up and lead times extending out, and the velocity of the change in processing protocol, we felt it wise to stay focused on our core competencies, which are amplification, subwoofers, and speakers."

### On how the formation of the AVC Group has helped Sunfire grow

"The focus of the AVC Group is audio, video, and control, and the processing of all of those things. Sunfire is heavily involved in the audio portion of that, so there are opportunities to integrate some of their technologies into what we do and what we're going to do. Really it's about what we're going to do. One of the biggest benefits to Sunfire is the sharing of that technology on a more free basis, because we're a family now."

### More Online

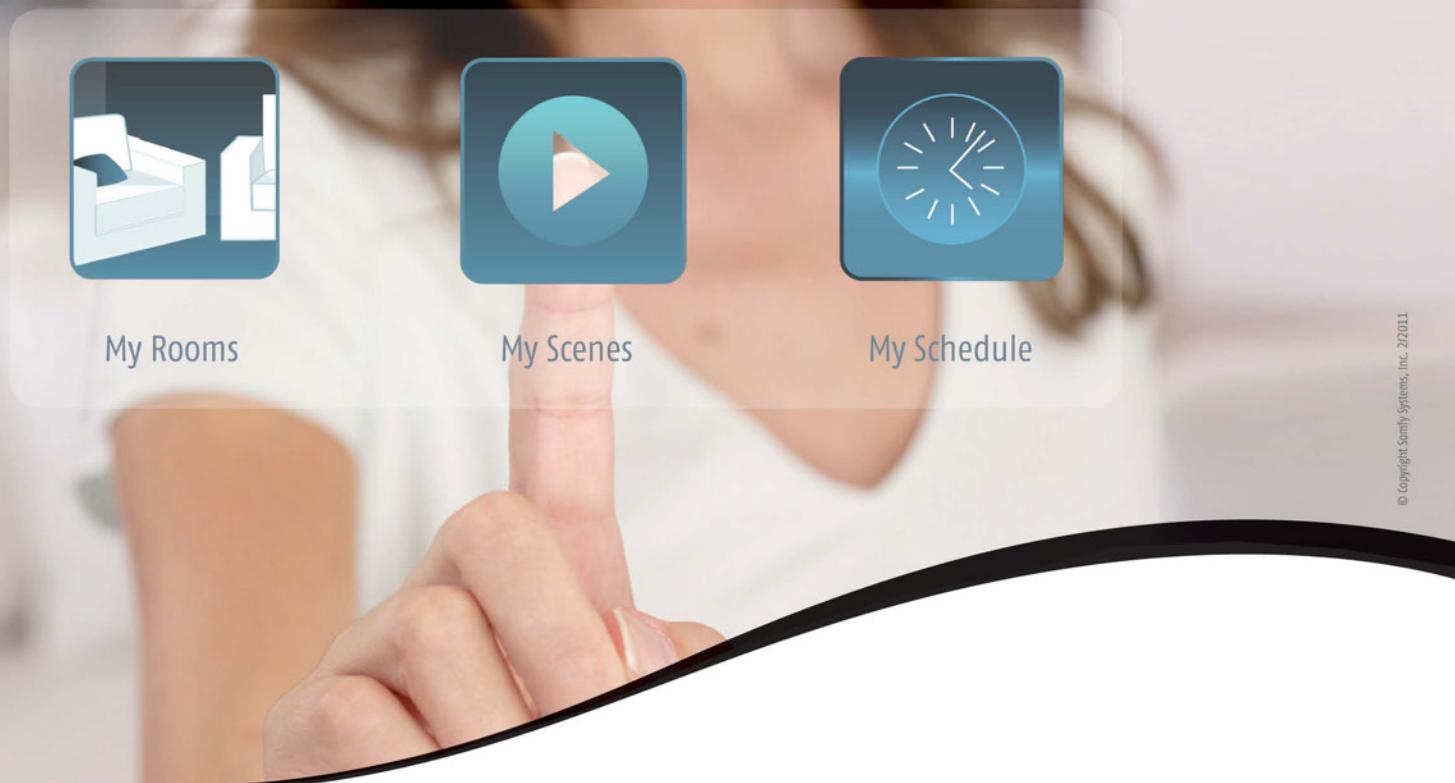
#### Continue the Conversation

To learn about Bob Carver's new role with Sunfire, the addition of a wireless subwoofer product in the company's line, and its decision to stop manufacturing receivers and preamps, check out the extended version of this conversation at [www.residentialsystems.com/0611](http://www.residentialsystems.com/0611).



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# Trust But Verify

*Regular Checkups Ensure Client Satisfaction, Add to Revenue Stream*

BY ANTHONY GRIMANI



Anthony Grimani (agrimani@pmilt.com) is president of Performance Media Industries, with offices in Novato and San Anselmo, California.

all the settings reloaded correctly. A few hours of troubleshooting and gear swapping got everything back in order; the client was smiling, and I walked off with a nice check for the work.

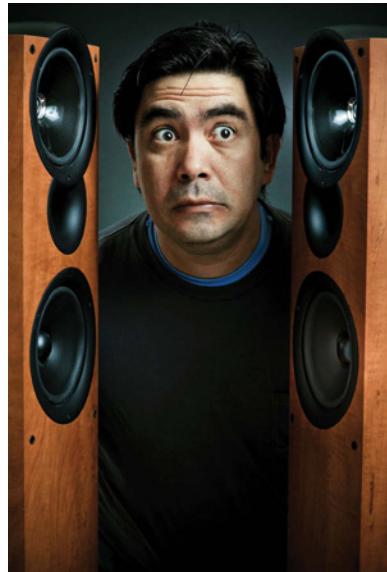
Due to the laws of chaos physics on the myriad pieces of gear and interconnections that make up a sophisticated home theater, you should prepare for a checkup visit at least every six months, and make it part of your recurring revenue stream.

As a general rule, I suggest doing at least the following quick checks on a system's vital signs. For audio, drop the 5.1 Audio Toolkit test DVD from Gold Line into the player and run Title 1, Chapter 19. It will play a seven-channel series of wideband pink noise test signals in sequence around the whole room (L/C/R/Sr/Br+Bl/Sl). You can then play Title 1, Chapter 16 (or better yet Title 0.1, Chapter 1) to verify the presence and potency of the subwoofers. Further, you can play Title 1, Chapters 1-7 and use a sound level meter from Radio Shack to verify that levels of the individual channels are still correct. You should probably also conclude this process with a quick listening test to your favorite demo disc. Be sure to use multiple microphone positions in order to get a spatial average around the main listening area.

For video, you can drop the recent Joe Kane Productions HD Basics Blu-ray Disc into the tray, and go right to the basic test patterns. Check through the color bars and

During the last year, you've installed super-high-impact, allegedly reliable home theaters for your favorite clients. You trust that these rooms are all still working right, but shouldn't you also verify it? I am talking about a new "old way" to generate revenue: servicing your clients' systems with a regular check-up visit. You can do this in person, or—if you leverage technology the right way—without ever leaving your offices.

It almost always find some type of defective or inoperable gear when I do calibration checkups. The latest surprises from last week's calibration session included a blown amplifier that took down the left-channel woofer, a defective signal processor that muted the surround speakers, and a surround decoder that had failed a few months earlier and didn't have



*Even though you trust the home theaters you installed work well, you should still verify so with a regular system checkup.*

using high-grade mics at the seating locations. Then, you can measure the resulting response of these speakers with the basic mic hidden in the ceiling fabric layers, near a sconce, or some other tricky place to plant a "spy" mic. This mic would be plugged into an analyzer system—either running on a dedicated box, such as the TEF network addressable analyzers, or connected to a PC with a remote desktop hook-up. You can generate the right stimulus from either a dedicated super-basic DVD player controlled by remote or the same PC running an S/PDIF signal to a switched input of the audio path. If you have references of what the audio is supposed to look like at the concealed mic location, you can easily test it all remotely. If you are tricky about it, you can even broadcast the mic sound over the internet back to your office.

On the electronics side, some manufacturers offer remote IP access to their products, which comes in handy if the client accidentally changes some of your default settings, or a power surge wipes out the memory.

Things are a bit trickier for video, but you can probably do a lot with a decent HD camera plugged into an HD IP monitoring station. The feed would go back to your office, and you could compare the video signals against the reference measured right after the in-room calibration (ISF or other). If something looks way out, it's time for a drive to the client's place with a new bulb, video analyzer, and even a new HDMI cable or EDID control box in your bags.

Remote monitoring and/or onsite checkups of your clients' home theaters are crucial to the ongoing enjoyment of the rooms and continued referrals. You can leverage

technology to make it painless for you, you can charge for the service contract, and you will keep your clients happy in the process. It's good to trust and verify. Chase Walton contributed to this column.

## HomeTheater

PLUGE signals using a blue filter or the blue glasses you get from THX. Then check the focus, resolution, and geometry alignment. Here again, if all the patterns look good, take a gander at the demonstration materials on this disc.

If all goes well, this process will take about an hour, but if there are problems, there is no telling when you will finish troubleshooting.

For remote audio monitoring, you can set up a reference microphone in a concealed area of the room. You can measure the response of each speaker after the room is fully calibrated and equalized

### More Online

#### Super Soldier Surround Sound Test

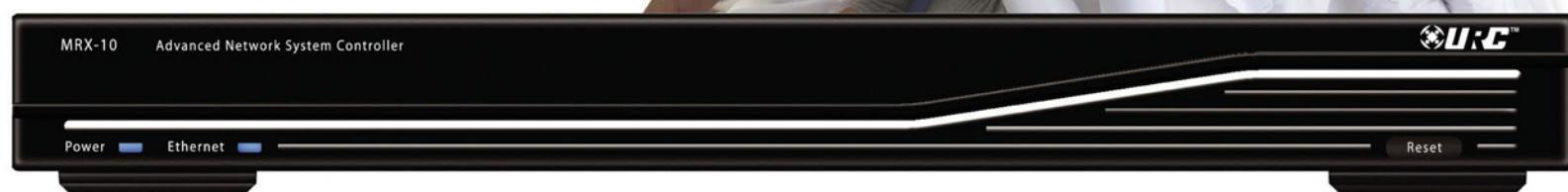
To watch a limited edition, DVD 5.1 surround sound test extra from *Halo 2*, go to [residentialsystems.com/0611](http://residentialsystems.com/0611).



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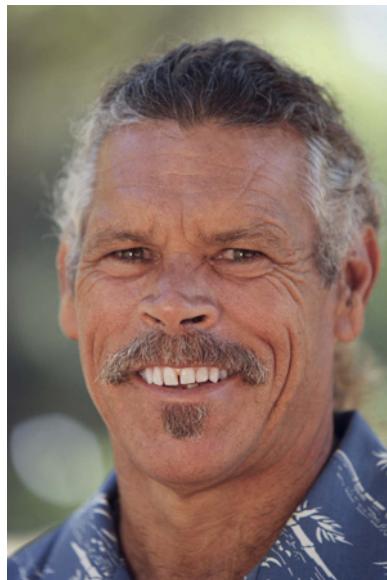
Total Control is exclusive to only the finest resellers. At URC we limit distribution, manage resources and provide the highest level of training and support. Asked why they sell URC products, many professionals reply: "Because it works." We couldn't say it any better.



# Tools of the Trade

## What You Need to 'Carry' If You Want to be a Professional

BY SAM CAVITT



Sam Cavitt (samcavitt@medesign.tv) is president of Paradise Theater in Kihei, Hawaii, and Carlsbad, California.

themselves as home theater designers can say yes to that question. These are basic capabilities that require some essential tools of the design trade.

Many electronic systems professionals and even home theater specialists prefer not to provide room design services and many collaborate with professionals that do. However, in the interest of raising the bar and empowering more of our peers to walk the walk, I will describe some of the design tools and how companies can integrate them into their businesses. This is not intended to be a complete list of all the available tools but certainly will provide home theater designers a place to get started.

The range of solutions for this area is large; so is the range of cost and learning curves. Thus, it is important to identify what a company wants and needs to deliver before choosing the right set of tools.

### Good

For 2D drafting and design, there are some inexpensive and relatively simple choices. AutoCAD LT by AutoDesk offers 2D CAD and the native ability to exchange drawings with architects, designers, and engineers in the native file format. AutoCAD LT does represent a learning curve, although, CAD classes are accessible online as well as at many public and private institutions.

Visio provides a 2D design and engineering environment that delivers very nice graphical presentation and enjoys a number of industry specific applications. Developers such as D-Tools have created integrated



## TheaterDesign

Home theater designers can walk the walk with the right tools of the trade.

design, sales, and management solutions, and a suite of design and engineering stencils (representative equipment shapes). Visio enables a budding home theater designer to provide good-looking 2D scale drawings relatively quickly. There

is a bit of a learning curve however for importing and exporting to CAD, and the integrated solutions require planning and implementation for best results.

### Better

Three-D design and drafting tools offer more functionality but at steeper cost and learning curve. AutoCAD's full version includes all the capability of the LT version, as well as 3D design and also integration with other applications (such as D-Tools).

VectorWorks is a 3D design software that is very well appointed with features for the price. The application has several suites depending on what features a designer will require. Like all full-featured applications, there is a learning curve, but the application is relatively easy to understand and offers a very strong set of tools for the cost. One disadvantage, as a smaller software company in an AutoCAD-dominated industry, is that it requires import and export of the AutoCAD files. This functionality works well, but it requires either up-to-date software or having the files sent in CAD file interchange format (dxf).

Sketchup Pro is a newer product on the marketplace, and while it is gaining ground, I have not yet tested it. My company is investigating the application as a quick study tool.

### Best

Advanced 3D design tools provide exciting visualization and more but significant cost, learning curve, and implementation. For instance, 3D Studio is a photorealistic 3D modeling application that enables 3D CAD files to generate highly realistic renderings. Obviously for those that create high-level interiors and want to show clientele precisely what it will look like, this is a valuable tool.

VectorWorks also has a number of 3D rendering applications at various price points, depending on the level of photorealism required.

Revit is a very powerful but expensive and challenging application. In time, many design professionals will utilize a tool like Revit, so keep your eyes open for developments in parametric design tools across the design industry.

When offering home theater design services, be sure to clearly define what that means to your clientele. If it means discovering what a client's system needs are and accurately specifying and installing electronics to fulfill that requirement, make sure the scope of work for your services is clear. If it means creating a space that will support that equipment, optimize the acoustical and visual performance, is aesthetically and ergonomically appropriate, environmentally comfortable, structurally sound, and is supported by documentation good enough to be successfully built, then either make sure you possess and can use the required tools, or engage a specialist and collaborate.

Either way, the bar will be raised in our industry, and the client will be well served.

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#### Tool Time

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With the growing popularity of thin LED TVs, Sanus engineers worked to develop full-motion mounts, such as the VMF308 and VLF311, that could accentuate this thin look, but yet still offer the ability to tilt and swivel the TV to achieve optimum viewing angle anywhere in a room.

# DECIPHERING DESIGN

**Manufacturers Reveal Key Influences on Creating Lifts, Mounts, and Enclosures**

by Llanor Alleyne

It's no secret that custom installation-grade mounts, lifts, and enclosures have proven to be excellent aides when it comes to designing and integrating powerful and discrete home entertainment systems. With 21st century sensibilities exerting a greater influence on the industrial design of consumer electronics, it has been this residential systems product category that has kept up with visual trends, augmenting once heavy and visible mechanics into elegant accessories built to aesthetically enhance the televisions and audio components they support.

## INTEGRATOR INPUT

Today, manufacturers of lifts, mounts, and enclosures are taking their product design cues from a variety of sources, including that most powerful of clients: integrators.

"Our integration partners and the consultant community have had the greatest and most valuable influence on our product design," said Bob Schluter, Middle Atlantic's chief engineer. "The engineering of each product is a continual process that starts with understanding the electronics and cabling being used, and learning what challenges installers are facing when integrating rack systems. That process doesn't stop when a new product emerges from our production line."

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Schluter's team recently used this process during the creation of Middle Atlantic's BGR Series of equipment racks. The challenge? Finding a unique way to mount and access smaller devices in a rack that was already built to handle additional capacity. After talking with consultants about the tools they find more useful and visiting with installers to understand how they dress their equipment, the team came up with the LeverLock system, a patent-pending internal management system that, according to Schluter, offers "fast, flexible cable management and vertical mounting of small components, such as interface boxes, power supplies and relay modules. This frees up more rack space for larger components and allows integrators to incorporate more equipment within each rack while facilitating the service of mounted items."

SnapAV takes a similar approach to the design of its mount products, including its in-wall fixed mount, the Strong Medium Ultra Low RAZOR mount that integrators can install in three steps.



Middle Atlantic's BGR Series of equipment racks features the LeverLock system, a patent-pending internal management system that offers fast, flexible cable management and vertical mounting of small components, such as interface boxes, power supplies, and relay modules.

"Call us old fashioned," said SnapAV's mount category manager, Amit Kulkarni, "but it all starts with one-on-one conversations with our dealers to really understand what's going on out in the field. After all, who knows the business better than they do? It's because of this close dealer partnership that we don't design for big box, nor will you find us for sale there or on the internet."

At Missouri-based Lowell Manufacturing, integrator feedback often impacts the design of the company's range of enclosures, as marketing communications manager Kathy Lane acknowledged when she said, "Our customers have really been the greatest influence on product design as they're in the field integrating electronics into a wide variety of environments."

Lowell's enclosures and racks reflect this input most specifically in their finishing touches, like beveled edges and premium powder epoxy finishes that are often the choice of sophisticated residential clients. The company's VARI-RACK is a good example of this awareness. Now available with a mobile base made to protect fine floors (wood, marble, and tile), the VARI-RACK has a special formula rubber tread,

## JASON BELLANTI, SPIRE INTEGRATED SYSTEMS, DETROIT, MI

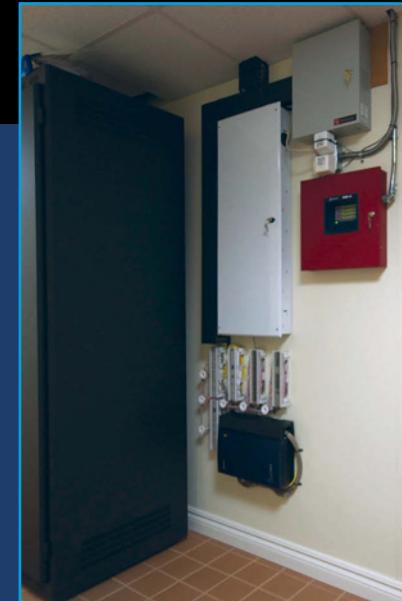
"The Lowell Rack came in handy for several reasons on this project. The rack ended up in a fully finished mechanical room that also doubles as the exercise room in the house. Using the front/rear doors and fan top, we were able to fully enclose the rack while maintaining a great look in the room. This is by far the nicest looking rack that we have ever used.

"The caster base option on the rack also helps with the great look since it barely raises the rack off the floor. The casters are recessed under the rack so that you can't even see them. We needed the caster base so that we could move the rack out when it needed to be worked on, and then slid back in the corner when we were done.

"The flexible knockout options on the



back of the rack are great. All of the wires were able to come out of the neat finished space at the top of the rack and go straight into a cutout in the drop ceiling.



"We also utilized the custom power strip inside the rack so that we could minimize the number of power wires coming out of the back of the rack."

# LIFTS, MOUNTS, & ENCLOSURES: BUSINESS

as well as a tough polyolefin core to help absorb shocks and protect equipment.

## CUSTOMER CUES

Creating backbone products that make it easier for integrators to complete demanding projects that call for



## BROOKE ROBBINS, AXCESS VIDEO GROUP, NORTHGLENN, CO

"This was a very successful custom solution for The University of California at Irvine (UCI) where they required video conferencing, but it was to be shared by several different departments. By creating a custom mobile cart, they were able to move it around the building to share the benefits. [Premier Mounts'] L180F was ideal in the application because it allowed us to utilize a large enough LCD display suitable for a conference room, but also able to lower the center of gravity to make it stable when moving from room to room throughout the seven-story building. The cart base had to be narrow enough to pass through the standard doorway, while the height of the display had to be sufficient to be seen from the back of the room. The customer was very pleased with the solution thanks to the ability to adjust the height to the optimum efficacy depending on the venue."

elegance, modernity, and cloaking elements, can also use a few ideas from end users—a key authority of what "easy" actually means.

"The customer's needs and requirements are at the top of our priority list, and our knowledge

of installation hurdles and common problems help us to provide ease of installation to the end user," said Shaun O'Brien, product manager at Premier Mounts. "We are always doing market research and listening to customer feedback in an attempt to stay ahead

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# LIFTS, MOUNTS, & ENCLOSURES: BUSINESS

of the technology curve and stay current."

Proud that all of its products are designed in the U.S., Premier Mounts points to its motorized lifts as an example of keeping the customer in mind. The company's off-the-shelf series of lifts comes as single or dual pole and are available with two basic top cover options: a floating top, which is permanently attached to the top of the lift and will move up with the attached display, and a hinged option that pushes the lid up out of the way while staying attached to the cabinet. The lifts are designed to operate safely and quietly.

Peerless Industries focuses on giving its customers the "highest product value for the price point," as president and COO Michael Campagna, explained when discussing what separates the company from its competitors.

"All enclosure and mounts are made in the USA and most are UL listed," Campagna continued. "The product is made with the highest safety standards while remaining affordable. In addition, all enclosures are tested to IP56 standards. This is a rating for enclosures that are subject to a variety of weather conditions. This standard was developed by the International Electrotechnical Commission (IEC) and is a worldwide standard."

This adherence to standards defines the Peerless' Indoor/Outdoor Protective Enclosures. Designed to protect screens from outdoor elements, pollution, theft and vandalism, these steel and corrosion-resistant enclosures are waterproof, sealed with a rubber gasket, and are available with heated or fan-cooled options.

## TELLING TECHNOLOGIES

Of course, the ultimate arbiter of lift, mount, and enclosure design is the technology it seeks to support and enhance.

## KORY ROTH, EVOLVED HOME, PORTLAND, OR

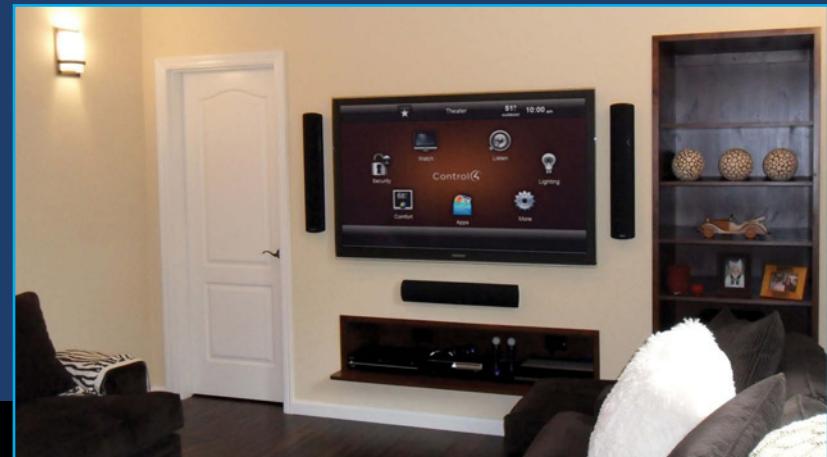


I have installed many solutions over the years, and from time to time, I like to try new products in the endless pursuit of the "Wow, why didn't I think of that?!" moment. After recently installing a few of WallWizard's excellent TA55 motorized tilt mounts, and a couple of their SA52 motorized swing mounts, I opted to try one of their DM65 rail style wall mounts rather than my recent 'go to' rail-mount product. The television was a Samsung 63-inch C8000 series plasma located within an on-wall array of GoldenEar SuperSat 50 front channel speakers that protrude only 2.5 inches from the surface of the wall when mounted. The television is 1.4-inches thick. So, I would need to have a mount that sits at one inch from the wall to meet the face of the speakers. The WallWizard DM65 rail-mount is exactly what fit the bill.

"The mount consists of a long round 'bar' with a notch out of one side of the radius for its entire length. The bar mounts to the wall with three included anchor brackets that are infinitely adjustable left to right, for those studs we seem to find 'exactly' where we need them. Simply level the mount, attach the two outside anchor brackets to the wall, and then attach your center mount where available. The anchor brackets also have a vertical slot for your lag or bolt to fine-tune the horizontal orientation of your flat panel. It features a 'rotating folding handle' that is used for locking the flat panel to the mount, which I will discuss in a moment. You can attach this to the left or right side depending on your accessibility needs."

"The back of the flat panel television is equally simple. Two 'hook brackets' attach to the top two mounting holes of the television from which the television will hang from, and two 'kickstand brackets' attach to the bottom holes. Each of the 'kickstand brackets' has a different length of 'kickstand,' which gets used during the hookup and final orientation of the television. That's it! Lift the TV and hang!"

"The WallWizard DM65 is a great wall mount, and it is now one of my 'go to' pieces."

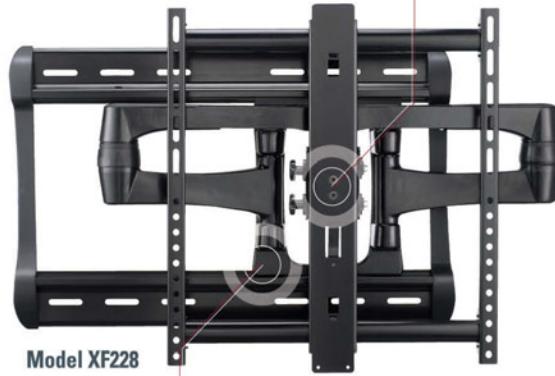


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# LIFTS, MOUNTS, & ENCLOSURES: BUSINESS

Without a doubt, the ultra slender profile of televisions (and some audio components) has had a significant impact on this category. As televisions have gotten lighter and skinnier, so too have mounts and lifts.

"With the growing popularity of thin LED TVs, Sanus engineers worked to develop a full-motion mount that could accentuate this thin look, but yet still offer the ability to tilt and swivel the TV to achieve optimum viewing angle anywhere in a room," noted Steve Durkee, president of Chief Manufacturing and Sanus Products. "Our VMF308 and VLF311 Super Slim Full-Motion mounts do just that. Placing TVs just 1.1 inch (VMF308) and 1.25 inch from the wall, and up to 11 inches of extension, these innovative mounts give consumers the best of both worlds: super slim design with full-motion capabilities."



Now available with a mobile base made to protect fine floors (wood, marble, and tile), Lowell Manufacturing's VARI-RACK has a special formula rubber tread, as well as a tough polyolefin core to help absorb shocks and protect equipment.

Durkee's team has also paid close attention to cable management when designing its mounts, with both the VMF308 and VLF311 featuring cable guides for a clean look without restricting mount movement.

Television profile shrinkage has also inspired OmniMount's new Ultra Thin mounts.

"We've noticed as TV technology moves forward that television manufacturers are paying more attention to aesthetics on the back of TVs, while at the same time, TVs are increasing in screen size but decreasing in both weight and profile," said Brett

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# LIFTS, MOUNTS, & ENCLOSURES: BUSINESS



Designed on its existing articulating wall mount line, Video Mount Products' FP-XMWAB Flat Panel Articulating wall mount is ideal for medium-sized screens (32 to 52 inches).

Stenhouse, vice president of product management for the company. "Those factors contributed to the design of OmniMount's Ultra Thin mounts. The elegant design of the Ultra Thins complement the look of new TVs, are easy to install, and keep TVs close to the wall."

OmniMount's UT80FM, UT100FM and UT125FM Ultra Thin mounts feature compression tilt, die-cast aluminum construction that complements newer television models, flex-fit cable management channels to route wires, and the company's Lift n' Lock feature.

For Draper Inc., it's the size of the project that counts. As Draper sales support manager Amy Madden pointed out, many of the company's projector lifts were originally designed with the two by two ceiling space in mind. "For the resi market, we needed to fit within 16-inch beams, so we designed the Aerolift 25 specifically for this



According to mount category manager Amit Kulkarni, SnapAV's in-wall fixed mount, the Strong Medium Ultra Low RAZOR mount, is designed to install in three easy steps.

requirement," Madden said. "It is the smallest lift on the market. With projectors continuing to shrink in size, the lifts must follow suit."

Powered by strong tubular motors, the Aerolift 25 features a stabilizing arm that doubles as a cable manage system while built in adjustability allows integrators to deal with on-site job considerations quickly. Ideal for mounting projectors, the Aerolift 25 can also be used to mount to recess speakers, security cameras, videoconferencing cameras or document cameras.

Designed on its existing articulating wall mount line, Video Mount Products' FP-XMWAB Flat Panel Articulating wall mount is ideal for medium-size screens (32 to 52 inches). Installer friendly, the FP-XMWAB has a 45-degree rotation and up to 15 degrees tilt capability, along with mounting rails that accept padlocks for the security conscious.

CLO Systems, a company that revolutionized the motorized television mount, extended that

design practicality to its WallWizard range of mounts.

"Making things simple through functional innovation is the genius behind the WallWizard DM65 flush-tilt combo mount – simple to install and simple to use," said Sung Oh, CEO and founder of CLO Systems. "TVs are now much more than simply a means for viewing TV shows; instead, today's convergence of technology enable televisions to serve as a game console, a monitor for the Internet, a home theater display, and a way to spend time with family and friends."

The WallWizard DM65 flush/tilt mount has a top-mounted D-bar rail that rotates either forward or backwards to engage or disengage its security latch mechanism. The TV

is held in place by locking hooks while its tilt security aspect allows users to tilt the screen up and lock, enabling access to rear-side wire connections.

Based in Brooklyn, NY, Llanor Alleyne is a contributing editor for *Residential Systems*.

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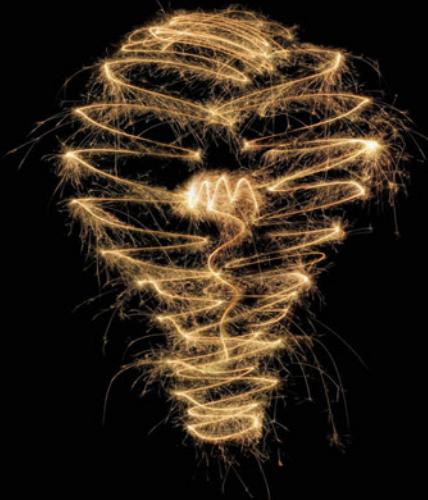
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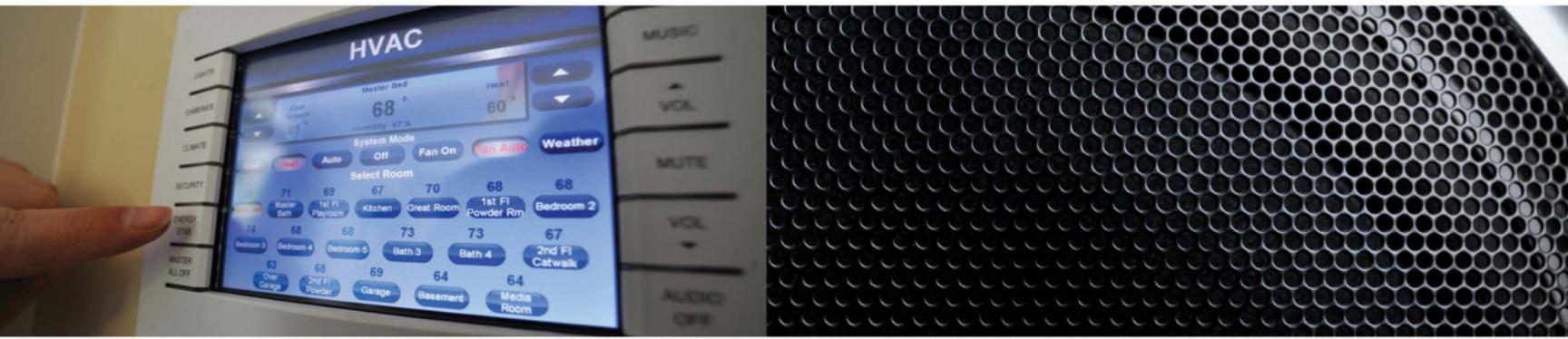
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# Tool Troves

## WHY SPECIALIZED CUSTOM INSTALL TOOLS ARE ESSENTIAL

by Lee Distad

It takes a lot of effort to make an AV installation a success without letting the client see you sweat. It's like the analogy of a swan gliding across a still pond; all an observer sees is the stately calm of the swan, but under the water, two little flippers are gyrating at high speed to create that graceful motion.

For electronic systems contractors, those flippers translate to specialized tools that make a job much easier, and in some cases, make jobs possible at all. Having specialized gear makes an ESC's life a lot easier, and more importantly, allows him to finish a job more neatly and more efficiently.

At every step of the installation, from the pre-wire to trim out and dressing an equipment rack, to finishing the audio and video calibrations, there are a number of tools that ESCs rely upon. Some are essential, without which you're doomed, but many others can be considered "useful luxuries" that just make your life easier if you have them on hand.

### Saving on Labor

Labor Saving Devices is a company that specializes in AV installation tools. Its most popular product is the Creep-Zit, made of flexible, interlocking fiberglass rods for pulling cable behind walls.

Available in two configurations, screw-on or clip-together models, an unlimited number of rods can be joined to pull wire from Point A to Point B. Labor Saving Devices offers a number of attachment heads to secure lines to the end of a Creep-Zit, but most installers still go with black electrical tape.

The Base Boar-Zit from the same manufacturer is a right-angle adaptor for a cordless drill that allows ESCs to route out wall material from beneath the line of the molding near the floor.

The company's HC series hole cutter enables ESCs to cut various-sized holes with speed, efficiency, and minimal clean up. Attached to a cordless drill, it's perfect for cutting multiple speaker or recessed lighting holes.

Finally, Labor Saving Devices' Wet Noodle is a magnetic in-wall retrieval system that comprises three components: a 24-inch flexible insulated retriever with an ultra-strong earth magnet attached at one end; 10 feet of lightweight ball chain with a stop-ring; and an 18-inch telescoping pocket retriever. From an entry point in the wall, it allows installers to pull wire in-wall blindly by finding the path of least resistance around obstacles.

Another crafty company, Milwaukee Tools, makes a fiber optic scope for looking behind walls. Operating on 12-volt cordless power, it comprises

From left: Arlington Industries' Wire Grabber, Atalona's AT-HD800 portable HDMI signal generator, Milwaukee Tools' fiber optic scope, Platinum Tools' 4Mapper coax tester.

a small LCD screen in the unit, a three-foot probe, and can accept an additional three-foot extension. Similar to what SWAT teams use to peep into rooms in a hostage situation, it enables installers to see deep into wall cavities.

### Testing Tools

Testing and validating all the lines in a project is a necessary step at several phases of custom channel installs from after they're run to troubleshooting later on. A lot of testing, from checking voltage to testing the impedance of speaker lines, can be accomplished with an off-the-shelf multimeter. In some cases, however, more specialized tools are necessary.

Coax testers are still important, especially for retrofit installations where the installers may be making use of an existing RG-6 network in the home. Platinum Tools' new 4Mapper coax tester offers quick validation, troubleshooting, and identifying multiple coax cables, tracking up to

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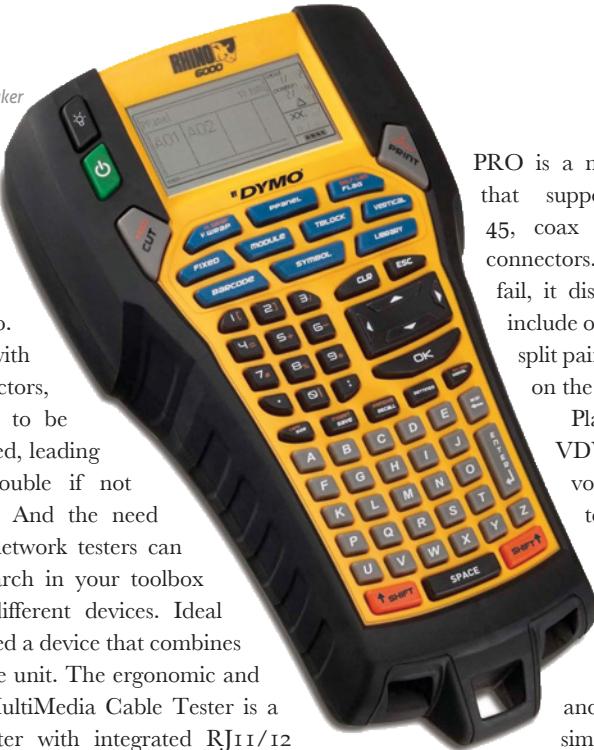
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four connections at a time from the main cable box.

Network cabling requires thorough testing too. Ethernet cables, with their multiple conductors, are the most likely to be incorrectly terminated, leading to all kinds of trouble if not properly diagnosed. And the need to have coax and network testers can mean having to search in your toolbox for two or three different devices. Ideal Industries has released a device that combines them together in one unit. The ergonomic and lightweight VDV MultiMedia Cable Tester is a handheld cable tester with integrated RJ11/12 (voice), RJ45 (data) and coax F-Connector (video) interfaces, allowing the user to quickly attach and test every common wiring type found



PRO is a multi-connection tester that supports RJ-11/12, RJ-45, coax F, BNC, and RCA connectors. In addition to pass/fail, it displays wire errors that include open, short, misfire, and split pair, and it can also report on the cable's length.

Platinum Tools' new VDV MapMaster is a voice, data, and video tester that combines continuity testing, mapping, and tone-generator functions into a single unit capable of identifying and mapping 19 locations simultaneously. It tests

Cat-6, Cat5e, Cat-5, Cat-4, Cat-3, and coax cables, as well as shielded cables. Other features include a seven-segment LCD screen with large icons, a tone generator with selectable tone cadence, and selectable pins carrying tone, and the ability to indicate pins with shorts, opens, reversals, miswires, and split pairs.

With the proliferation of HDMI in the field, and its reputation for being finicky to install, testing and validating HDMI lines has become important. Atlona Technologies has a family of testing kits that are designed to diagnose most digital connectivity issues quickly. The AT-KIT-HD1, AT-KIT-PROHD2, and AT-KIT-PROHD3 kits combine an HDMI signal generator and seven-inch HDMI monitor in a Pelican case, while the AT-KIT-PROHD3 also features the AT-Sync HDMI EDID emulator and AT-BAT-DIS7PRO monitor battery. The kits include the Atlona AT-HD800 portable HDMI signal generator, which allows users to diagnose specific resolution, video timing, EDID, and color space issues in any DVI or HDMI video system. It features 13 test patterns, including 3D tests for side-by-side, top and bottom, and frame packing, a format that is mandatory for all HDMI 1.4 devices.

The AT-KIT-HD1 includes the AT-DIS7-HD, a seven-inch testing monitor that recognizes any HDMI or DVI source at resolutions up to 1080p, and allows users to observe

both audio and video signals in real time. The display allows users to view signal information such as high-bandwidth digital content protection (HDCP) compliance, resolution, frequency, digital format, and audio information.

In addition to the AT-BAT-DIS7PRO five-hour monitor battery, the AT-KIT-PROHD3 kit includes the AT-HDSync HDMI EDID emulator, which is intended to diagnose EDID, hot plug, and sync issues. The AT-HDSync stores the EDID information and recalls a default EDID setting in non-volatile memory that supports HDCP handshaking. The device can also generate a missing hot plug and will stay in line to maintain the hot plug at all times.

### Calibration Contrivances

Video calibration is another essential service when completing projects. The Datacolor Spyder is a popular software-based video calibration system. A USB-connected probe sits on the screen of a flat panel and plugs into the installer's laptop. The latest iteration of the popular Spyder is the Datacolor Spyder3TV, which delivers an easy-to-use solution for optimizing all the TVs in your client's house, so they can see movies as the director intended. Datacolor claims that calibration can save on a display's energy consumption and extends TV life, by precisely calculating the correct adjustments to brightness, contrast, color, tint, and temperature.

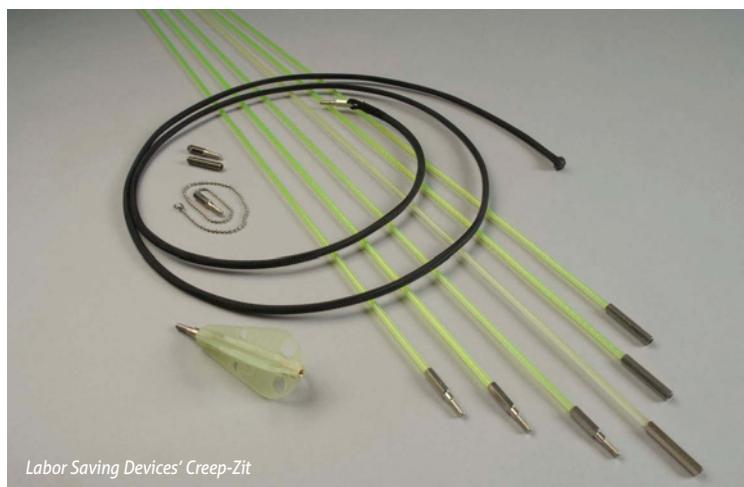
Datacolor also offers the ColorFacts Professional 7.5 toolkit. Intended as a professional calibration system for all video systems, including projectors, RPTVs, direct-view TVs, DLPs, LCDs, and plasma TVs, it empowers installers with an easy-to-use professional color calibration system and an intuitive, configurable, full-color user interface. ColorFacts Professional 7.5 reduces the time required to accurately calibrate almost any display. Calibration with the kit produces high-quality

**At every step of the installation, from beginning the pre-wire, to trimming out the wall and ceiling fixtures, to dressing an equipment rack, to finishing the audio and video calibrations, there are a number of tools installers rely on.**

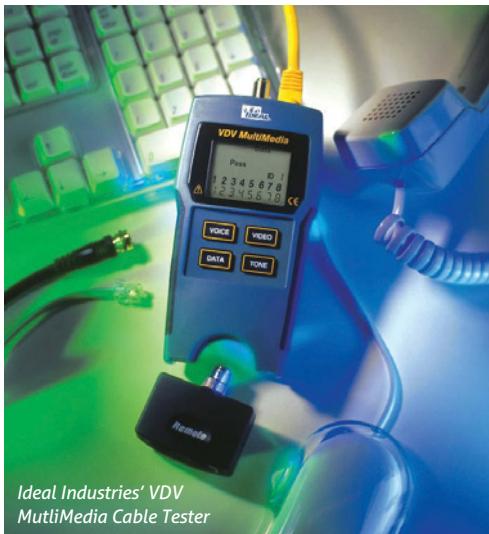
throughout residential and commercial buildings—including telephone wiring, data network cabling, and video/security alarm wiring—to verify wiring integrity and assure proper terminations without having to change boxes.

In addition to the built-in flexibility of the main unit, the VDV MultiMedia Cable Tester has a detachable remote with RJ11/12, RJ45 and coax F-connector interfaces that stores securely in the main unit's base for ready availability and easy cable testing. The unit has the capacity to support up to eight remotes to serve larger installations, making it even easier to track down multiple lines in existing structures.

For installers looking for more data, the VDV



Labor Saving Devices' Creep-Zit



Ideal Industries' VDV MultiMedia Cable Tester

images, lifelike colors, more detail, and promises an overall better viewing experience.

#### Miscellaneous Means

Not all useful installation tools or accessories are showstoppers, but that doesn't mean they can't be important. Wire Grabber from Arlington Industries is an accessory that offers secure hanging support for static loads requiring drop wire support, such as fixtures, boxes, or cable trays. Usable in dry or wet

locations, Wire Grabber can hold onto 0.080 inches (2mm) galvanized braided wire and is unaffected by oil or grease. Rated for static loads up to 100 pounds, it offers easy length adjustment and no kinking of the wire.

Another unsung but crucial device for installers is a reliable label maker. Properly used, they can save more time than using a Sharpie to make notations on wire during the pre-wire phase. Dymo's Rhino family of label makers is popular with installers. The new 5200 is the direct replacement and upgrade to the old 5000 series. It features integrated bumpers that don't have to be removed to change a label roll, and a lithium ion rechargeable battery. New features most relevant to ESCs include hotkeys for the most common label shapes used, such as RJ45 ports and tags on wire. Also, 100 custom label formats that the installer



Platinum Tools' VDV MapMaster tester

prefers can be saved to memory, as well as a custom library of the most commonly printed names or designations. The up-sell model, the 6000, features USB and a software interface to label programming on your computer.

As they say, "the devil is in the details." From the prewire phase all the way through to the finishing and calibration of your client's systems, the tools you select for every operation will have a direct effect on the detail and quality of your jobs, not to mention the time required to execute them. Choosing the right tools will pay big dividends in client satisfaction and profitable projects.

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##### A Matter of Professional Opinion

Read more of Lee Distad's praise for his trusty multimeter and other musings from his Custom Corner blog, at [residentialsystems.com/0611](http://residentialsystems.com/0611).



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# Success in Triplicate

## UNIVERSAL SYSTEMS INTEGRATES THIRD HOME FOR LOYAL CLIENT IN AUSTIN



On the main floor of Universal Systems' project in Austin, TX, the Great Room AV features a Samsung 55-inch LED TV and Samsung 3D Blu-ray player hidden in a cabinet along with a Tannoy subwoofer. Tannoy in-ceiling speakers complete the room.



PHOTOS: FRANK J. MILES

by Karen Mitchell

For a retired couple with homes in Colorado and north of Dallas, a new residence in Austin is a wonderful retreat. For the homeowners' electronic systems integrator, the third time was the charm.

Universal Systems Inc., of Ft. Worth, TX recently completed a \$410,000 project for the couple's newly constructed home overlooking Lake Travis in Austin. At 4,500 square feet, the Mediterranean-inspired residence is the smallest of their homes but packs a punch. Universal also was the integrator on the client's previous homes.

The Austin residence features a Crestron Digital Media HDMI switching system with 24 audio zones and Crestron lighting control for 133 lighting loads. There is a 12-inch TPMC-12LB touchpanel in the rack with five TPS-6Xs scattered throughout. A full Apple interface is available for iPad, iPhone, or Mac XPanel use, and the interfaces allow full remote control from anywhere in the world. All video and sound via HDMI cabling to amplifiers and signal conditioning equipment reside in the equipment room within Middle Atlantic Products' gangable WRK Series. Furthermore, all room AV equipment including TVs, Blu-ray players, and speakers are powered by Middle Atlantic's Exact Power PowerCore system (see sidebar).

Whole-house entertainment equipment, lighting, climate control, swimming pool, and security are monitored and controlled through

Crestron touchpanels, remotes, and wall switches. Amplification is provided by six Lab Gruppen amps. Speakers from Tannoy include CMS401DC and 501DC models installed throughout various rooms in the house, including the elevator and on second- and third-floor porches. Five Samsung LED TVs are found throughout the home, as well.

The biggest challenge was fitting everything into a relatively small space, said Universal co-owner Hank Lohmer. "There was so much packed in, including the 24 zones, so we had to make sure there was enough rack space."

Lohmer, who programmed the system, came to the company in 1999, where he not only joined founder Gary Dilling but also met and married the boss's daughter, Dorenda Lohmer, who runs the office. Dilling started Universal in 1981 as a security company, moving into home theater in the mid-1990s and growing the business from there into a full-service integration company capable of designing and installing systems for big executive-style homes. Although Universal offers commercial services as well, including those for clients such as the FAA's Regional Operation Center in Ft. Worth, the bulk of its work is in the residential sector.

### A Homeowner That Knew What He Wanted

According to Lohmer, this latest home plays into the owner's audio and video desires the best. "He was in the connector and cabling business as a supplier," Lohmer explained. "He gave me a list of what he wanted in each room, and we ran with it. All three homes are Crestron, and are decked out, but we plan to go back to the other homes and mimic what Austin has. All three are internet-connected at all times, from any location."

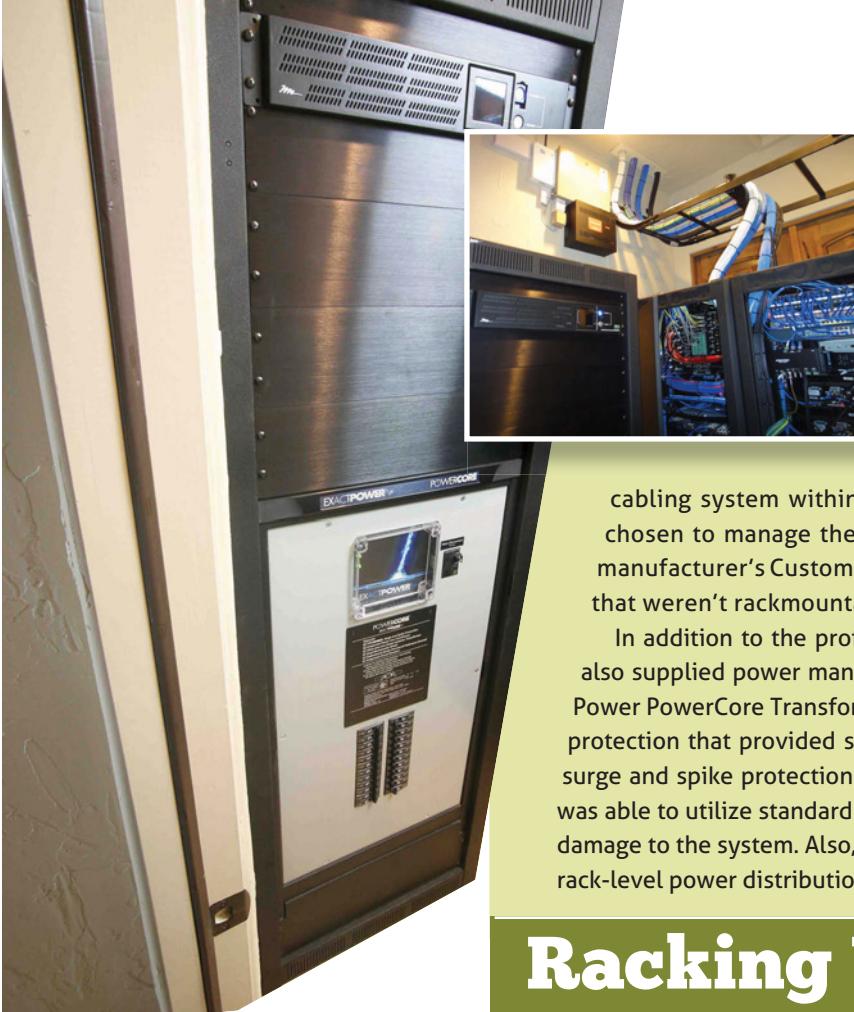


Universal Systems' Austin project incorporates Middle Atlantic Products' gangable WRK Series wide body equipment racks.

On the main floor, the Great Room AV features a Samsung 55-inch LED TV and Samsung 3D Blu-ray player hidden in a cabinet along with a Tannoy subwoofer. Tannoy in-ceiling speakers complete the picture.

"Aside from being excellent speakers with a large product line for many applications, we have used Tannoy for many years and have established a personal relationship with the company," Lohmer said. "The client also has them in his other homes."

In the design stage, Lohmer added, the great room's TV viewing angle and its proximity to heat generated by the fireplace were a concern. "However, the length of the great room allowed for



Installing a custom Exact Power PowerCore Transformer System in a Middle Atlantic WRK rack with Integrated UPS enabled a level of protection that provided single-point ground, isolation, battery back-up, filtering, and surge and spike protection for the entire AV System, not just the rack room.

Universal Systems' Austin project incorporates Middle Atlantic Products' gangable WRK Series wide body equipment racks that were fully integrated with thermal and cable management accessories to maintain adequate temperatures and a clean, effective

cabling system within the cabinets. Middle Atlantic's cable ladder system was chosen to manage the massive amount of cable coming into the room, and the manufacturer's Custom Rackshelves and faceplates were specified for components that weren't rackmountable.

In addition to the professional racking provided by Middle Atlantic, the company also supplied power management for the entire AV system. Installing a custom Exact Power PowerCore Transformer System in a WRK with Integrated UPS enabled a level of protection that provided single-point ground, isolation, battery back-up, filtering, and surge and spike protection for the entire AV System, not just the rack room. The client was able to utilize standard electrical wiring throughout the house without any worry of damage to the system. Also, Middle Atlantic's custom configured PDW systems provided rack-level power distribution where and how it was needed.

*-Karen Mitchell*

## Racking Up the Power

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In the home's queen suite, a flat-panel TV lift, by MK 1 Studio, features three viewing positions and a bed skirt management arm that raises the bed skirt during use and lowers the skirt when the TV is retracted under the bed.

comfortable TV viewing," he said. "The owner selected a low-BTU fireplace and a mantle that diverted any heat away from the TV, which was inset into the stone fireplace with a Chief PAC-501 In-Wall TV Enclosure and mount."

The home's utility/laundry room, with an extra refrigerator, features audio and light sensors. A nearby hallway with entry to the double garage includes additional speakers. Inside the oversized garage, two in-ceiling Tannoy CMS 501s provide audio, and five Crestron lighting panels control whole-house lighting. A formal dining room is its own zone as is an adjoining conservatory/sitting room with a 54-inch high bar-style table.

Keypads with ADT security are installed at strategic locations. Outside, four static and three Pelco devices provide additional security.

On the second floor, both king and queen suites have 40-inch LED TVs. Suite speakers are installed inside and on adjoining porches. In the queen suite, the owner's wife forbade furniture housing the TV at the bed's footboard. The only solution, Lohmer said, was the employment of an under-bed TV lift for the LED TV. The lift, by MK 1 Studio, features three viewing positions and a bed skirt management arm that raises the bed skirt during use and lowers

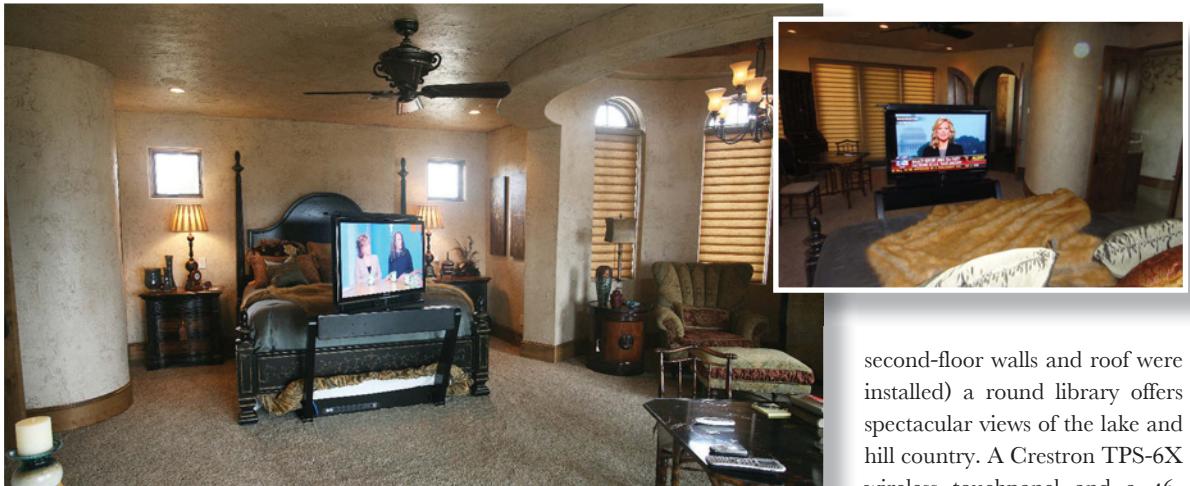
the skirt when the TV is retracted under the bed.

"As long as you have a bed skirt it's a great idea; without a bed skirt, not good," he says. "When we first put it in, the client's wife didn't like it, but as she used it more she began to love it. This was the first time we used this solution."

A guest suite, with a 46-inch LED TV and in-ceiling Tannoy CMS401 DCs, also has a Crestron c2n-dap8 processor for its surround system. "It was originally going to be a media room," Lohmer said, "but we needed more rack room, so there is a fold away Murphy bed."

A second-floor landing features a compact six by six-foot equipment closet with three access doors and a Mitsubishi P Series system for cooling. "We also had the [Exact Power] PowerCore custom-housed to match the other two AV racks, so it was consistent," he said.

On the third floor, accessible from a circular, floating wood stairway from the second floor (which is steel-framed and had to be dropped in before the



second-floor walls and roof were installed) a round library offers spectacular views of the lake and hill country. A Crestron TPS-6X wireless touchpanel and a 46-inch LED TV, as well as audio,

add to the enjoyment.

Outside, a swimming pool with a fiber optic Pentair lighting system that changes water colors is controlled through the Crestron system. Two rock speakers from StereoStone, with a lifetime warranty, provide audio. More audio extends to back and side porches.

"When you work with a system of this caliber," Lohmer said, "and the customer already knows the cost, to some degree prices aren't a worry. You just worry about doing it right the first time and making sure you have everything together. When a client is spending this amount, there's a lot of trust involved. You have to be careful not to take advantage, and to be a good steward of the customer's money. They need to know you'll be there for them and follow through. It's easier with repeat customers because you already have a rapport."

Karen Mitchell is a freelance writer in Boulder, CO.



## What's in the Hood

The desire by Universal System's client to have a hand-carved Mexican travertine kitchen vent hood was all at once beautiful and functional, but presented a unique challenge for the integrator. The custom-built one-ton hood, made precisely for an exact fit, not only had to house an exhaust fan for the cooking range, but also had to accommodate a Sony 32-inch LCD TV in a Chief PAC-501 cantilever mount.

"We measured the space at least three or four times to get the proper sizing," explained Hank Lohmer. "Typically, we would have hung a TV on a cabinet, but with this stone and vent hood, everything had to be modified because we had only two to three inches behind the TV to allow for venting."

The TV and Chief mount are four inches deep, so the airflow had to be in a customized channel. "There wasn't a lot of space for fluff," Lohmer added. "After seeing the final product, we knew all the measuring and planning was not done in vain. It has become a major focal point of the kitchen and the house."

*-Karen Mitchell*

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# Touchscreen Takeover

ASSESSING THE LATEST PANELS AND THE IMPACT OF THE TABLET MARKET



by Lindsey Snyder

The touchscreen is an ever-critical component of any home installation, but recent consumer trends—the ascent of the iPad and other mobile devices specifically—have altered the way home systems are controlled, or at least how we think about controlling them. *Residential Systems* spoke to manufacturers about their latest touchpanel technology and how the explosive mobile and tablet device market has affected their approaches to new product design.

**URC's KP-4000** two-way network keypad communicates with components through a residential IP network, so the KP-4000 can control pretty much everything on the network, including multi-zone AVRs, energy management tools, computers, iPods,

and lighting. The KP-4000 can deploy second or third zones of an AVR, and it is programmed with URC's Complete Control Program (CCP), which can program buttons to any size, color, or shape, as well as eliminate any buttons, text, or images that a homeowner may find confusing.

URC will soon ship its Total Control line of touchpanels, but those details are still under wraps as this goes to press. The CCP products will continue to be sold through distribution while the Total Control will only be available through direct, certified dealers. URC's Jon Sienkiewicz, director of marketing, did offer an explanation of the different capabilities that the next-generation touchpanels will have. "We've switched to the TCL

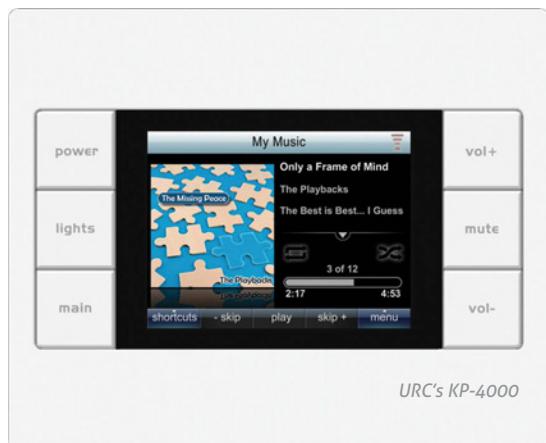


programming language to create the application modules," he said. "This allows us to create the modules much faster than before."

As far as the mobile device market's effect on URC's touchpanels, "We haven't changed anything," Sienkiewicz said. "Our customers tell us that it's fun to be able to use a mobile device under certain circumstances—like when they're out on the deck and their remote control is inside their house. Microwave ovens are fun to use, too, but they can't replace the kitchen range and traditional oven."

As the latest addition to the Core 3 family of OS-ready touchpanels, **Crestron's TPMC-9L** features a nine-inch widescreen and a larger display, yet it has a minimalist design. The touchscreen offers widgets and high-definition video streaming for IP/web security cameras. Cover flow and page flips are two of the graphical, animated features. Finger-swipe control is enabled by gesture navigation with intelligent velocity. Pushbuttons are positioned along both edges of the screen, aligning screen text and graphics to the corresponding buttons.

For any Apple users, some of the TPMC-9L features may sound a little familiar. "Our latest touchpanels provide a user experience consistent with smart devices, and the panels feature infinity glass, no buttons, and very thin profile," said Jeff Singer, Crestron's marketing communications director.





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MX88 with SmartPanels and keypads

"In 2004, we introduced the first WiFi touchpanel with an embedded OS that provided internet access, PC applications, and streaming media," Singer said. "This was the predecessor to the smart devices we see today. So, when the iPhone and other devices were introduced, we already had the framework to integrate them into a Crestron environment."



Honeywell's Lynx Touch

But Apple's significant impact on the industry was further embraced at Crestron. "We modified the design and user interface of our latest touchpanels to be consistent with the iPhone/iPad," Singer noted.

He also said that Crestron devotes resources to

expand control applications for iOS, Android, and Windows.

The **MVP-9000i**, the newest member of AMX's Modero touchpanel line, features wireless and wired functionality, interactive user interface capabilities like gestures and page transitions, nine-inch widescreen 24-bit color display, and built-in 802.11a/b/g WiFi card with antenna diversity. Support for power over ethernet eliminates the need to pull a separate power cable for the docking station. A rough-in box allows the touchpanel to mount flush, recess in stone, drywall, brick, and most other surfaces.

"The MVP-9000i gives users the ability to seamlessly go from wired to wireless, so they get the best of both worlds," said Lorelei Connon, senior product line manager for AMX. "They can use it while roaming the house, or dock it for use there. It transitions automatically."

AMX is also embracing the tablet market with new products. "The booming smartphone and tablet computer market is driving advancements in lower power, higher-performance technologies, such as specialized processors, LCD screens, and high-performance batteries, [which] AMX is leveraging for new touchpanel development,"



## Embracing Change

The manufacturers interviewed about their touchpanel technology for this story had varying opinions on how mobile tablet devices affect their businesses. At this point, tablets are in their infancy, yet they have been tremendously influential in the home entertainment world, and their impact spans across the business spectrum.

In the case of Cortexa, the tablet revolution has led the home automation system supplier to cease developing new touchscreens altogether, and instead, offer an iPad dock and app. "We had been selling touchscreens for a long time," said Jesse Lind, sales director for Cortexa. "They are expensive. It came down to cost and functionality. You get a lot more functionality out of the iPad."

Cortexa's in-wall iPad dock was launched about six months ago. The aluminum docks come in different colored bezels, brushed aluminum, and primed for painting. They mount either horizontally or vertically. With an MSRP of \$399, "You can put two iPads and two docks in for the same price as one touchscreen," Lind said.

Cortexa offers energy efficiency focused subsystem support including lighting, interior climate control, whole-home energy monitoring, whole-home audio and video entertainment, motorized shades, and security.

Touchscreens have been a significant part of Cortexa's business, Lind said. "If someone was buying a controller, they were buying a touchscreen. That dropped pretty significantly when we came out with our iOS app. That led us into the iPad, putting it into the wall, and making it into a new touchscreen."

Cortexa still stocks touchscreens, and Lind said they still sell limitedly, but mostly for very high-end homes. Cortexa focuses more on the middle ground homeowners, "the average Joe," Lind said.

Although Cortexa is banking on the increasing role of tablets in home control systems, Lind acknowledges the appeal of a dedicated touchscreen. "I think eventually [tablets] will be taking over. But at the same time, there's still that sense of when you have a dedicated touchscreen in your wall, you know where it is and that it's not going anywhere."

—Lindsey Snyder

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Connon said. "AMX is utilizing these advanced components to deliver new solutions, and at very compelling price points."

**Control4**'s five-inch and seven-inch touchscreens feature a low profile and edge-to-edge capacitive glass, which has made the biggest difference in Control4's touchpanel technology, according to Paul Williams, vice president of support services. "It allows for quick response and better sensitivity," he said.

The touchscreens are operated by Control4 OS 2.0, which includes a flash-based user interface, and they can access and extend system capabilities using

houses. Lynx Touch works with Honeywell's Total Connect remote management services. A Family Message Center allows users to leave voice messages for each other and function as a speakerphone.

Designed to take full command of a room's environmental and information technology, RTI's RK10 in-wall controller combines the power of a PC with the simplicity of an intuitive touchscreen control system. A 10.2-inch TFT widescreen LCD touch-screen and a fully customizable interface cater specifically to installations with many first-time users. Communication options include a built-in wired and wireless ethernet connection for easy access to network security cameras, web browsing, programming, and full two-way communication with RTI XP series control processors.

"Two-way control via hardwired and wireless devices has been the biggest difference in our current line of touchpanels," said Pete Baker, vice president of sales and marketing for RTI, "especially over our powerful 2.4-GHz ZigBee platform, which allows users to control and receive feedback from

a variety of supported third-party systems and components, including HVAC, security, music servers, and much more."

From the tablet market perspective, RTI offers a different view from some others, "Tablets and other mobile devices haven't affected the design of our touchpanels," Baker said. "If anything, they have actually magnified the benefits of having a dedicated professional control device with hard buttons for tactile control."

Furthermore, Baker doesn't believe touchpanels are vulnerable to a tablet takeover. "In addition to design, mobile devices have a number of limitations as primary controllers, from WiFi dependence to the lack of true multitasking," he said. "Where they have influenced us is in the development of solutions such as our RTiPanel app, which complements our processors and touchpanels by providing users with convenient remote access to their electronic systems from anywhere in the world on their mobile devices."

Lindsey Snyder (lsnyder@nbmedia.com) is assistant editor of *Residential Systems*.



Control4's five-inch and seven-inch touchscreens

apps from the 4Store Application Marketplace. These touchscreens were designed specifically with dealers in mind; electricians can pre-wire the back-boxes in new construction, so dealers can install them with a single3 connection.

This summer, Control4 has a license coming out for intercom functionality, providing whole-home communication. Users will be able to have conversations between rooms, send messages to all the rooms, and even monitor a baby room.

The multi-tiered impact of mobile and tablet devices has affected Control4's approach to touchpanels and is reflected in the company's latest designs, according to Williams. "The capacitive touch LCD glass first appeared in mobile devices. Secondly, the low price of these devices has reset the customer's expectations of what touchpanels should cost. The days of selling multi-thousand dollar touchpanels has come and gone. Lastly, the sleek, slimline designs of mobile devices [have] set the customer's expectation on what touchpanel devices should look like."

Honeywell's Lynx Touch is a seven-inch touchscreen supporting Z-Wave thermostats and lighting control. The menu-driven prompts are designed to be simpler and walk installers or homeowners through operation and configuration. Other features include two-way voice over GSM radio for homes without landlines, including VoIP



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# Installation Watchdog

CLEARONE'S TECH SALES PROGRAM HELPS PLATINUM AV DESIGNS SEAL THE DEAL

by Lindsey Snyder

In just a year since ClearOne launched its Tech Sales pre-sale support program, the audio conferencing products manufacturer says it has received very positive response from dealers, many of which credit the system as having helped them win bids.

The program requires a sales manager or rep to submit a system design to Tech Sales where a ClearOne representative will validate the design and make suggestions for best practices, such as a more efficient line of amplifiers, for example.

Tech Sales also includes configuration, feasibility studies, training, and product education. If a consultant or dealer needs training—maybe they aren't familiar with all of NetStreams' products or aren't a certified network dealer—Tech Sales

is capable of configuring and programming the entire AV system remotely. If necessary, ClearOne will even send service staff onsite to support the initial installation with basic training for no cost.

"Some people just use it to ask questions if they don't know about ClearOne equipment," explained Michael Braithwaite, senior vice president of technology at ClearOne.

Braithwaite, who was responsible for conceiving and implementing the Tech Sales program, describes it as "a pre-sales version [of tech support]."

The Tech Sales program is most popular on the larger residential systems. Over the course of the



*Michael Braithwaite of ClearOne, was responsible for conceiving and implementing the Tech Sales program.*

recession, many dealers have downsized their technical staff or have hired younger talent that is less familiar with the industry. "This is where Tech Sales can really help [dealers]," Braithwaite said. "We can facilitate the complete design of that residential project—the control points, security controls, AV course control, flow drawings, equipment lists, [etc.]."

And the feedback from dealers has been very positive, especially from small firms for whom Tech Sales has helped win bids.

Phillip Staats, owner of custom installation firm Platinum AV Designs in Fredericksburg, TX, benefited from the Tech Sales program on a golf course clubhouse project featuring 22 zones of AV.

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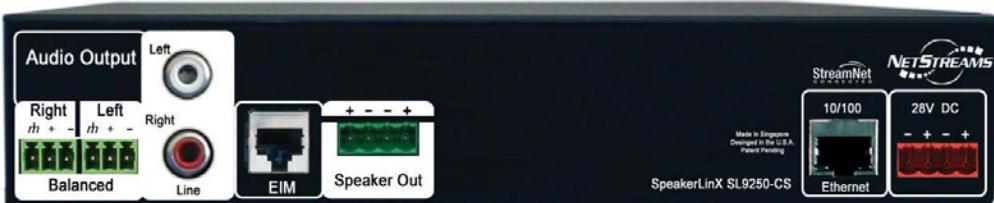
CED1 facing IN



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The NetStreams SL9250 SpeakerLinX provides amplification, zone control, and supports locally connected sources.

"Everyone I talked to through NetStreams just has made it very nice," he said. "They made sure I was not ordering anything I didn't need and ordering everything I did need."

Staats recommended NetStreams to the clubhouse client because he believed that its products were ideal for the size of that job. Tech Sales helped make sure everything worked together, including how the audio and video matched up on all the displays, he said.

The organization of the whole process was a big take-home point for Staats. "It seemed like it flowed better," he said. "On normal jobs, you don't have

someone to help you along like this."

Even for dealers that do have advanced technical know-how, "we're introducing new products all the time," Braithwaite said. "They still can use Tech Sales because they may not be up on the latest state of the art for everything."

With digital media content and content protection in particular, Braithwaite said there are so many questions with those advanced technologies, "unless you're really, really up on it, you need Tech Sales."

ClearOne works on a mix of residential and commercial projects. After purchasing NetStreams

in November 2009, ClearOne retained the company's name as its primarily residential brand. The business has seen some interesting flip-flops between the two market channels.

After the housing bubble burst, ClearOne's ratio of commercial versus residential projects completely reversed, unsurprisingly, with about 80 percent of projects commissioned being commercial. "The interesting thing is there were huge commercial project deployments going on then. [ClearOne] did six or seven big stadiums," as well as some casinos and hotels, among others, Braithwaite said.

"What I've seen in 2011 is residential has retaken the position," he said. "Residential is probably 60 percent of our business right now."

He hasn't seen this level of activity since 2008, when about 20 percent of that was retrofit. He's now seeing about half of the residential projects as retrofits. The icing on the cake of this encouraging news is that "the big homes are back," Braithwaite said. "Thirty- to 40-zone houses are back."

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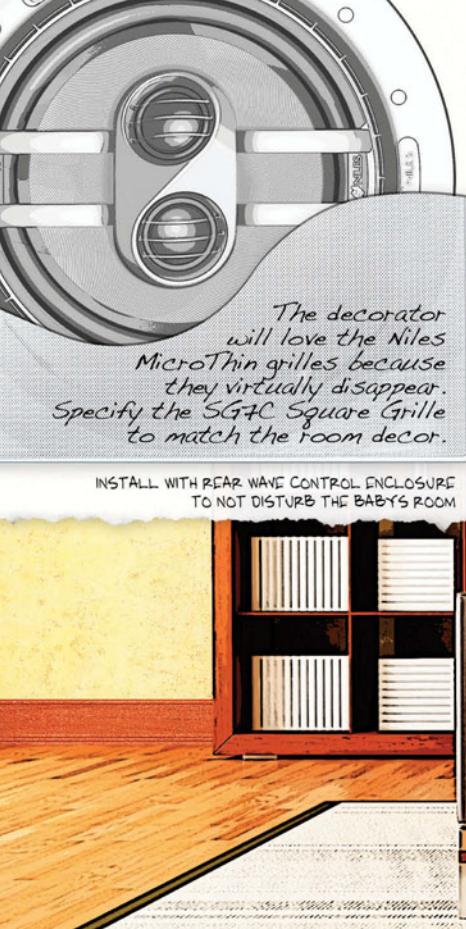
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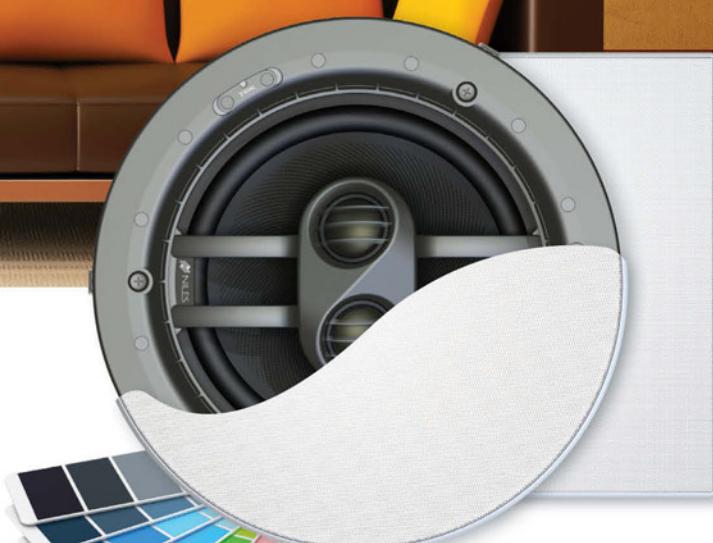
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# Doing More with Less

## HOW CRM SOFTWARE CAN HELP OPTIMIZE BUSINESS PROCESSES

by Ryan Brown

You've probably heard of Customer Relationship Management (CRM) software before, but you may not know what it is or what it really does for your business. Many people consider CRM to be a sales-related tool, but effective use of a CRM platform can provide efficiency throughout a company's operations by improving communications and workflow.

The primary use of your CRM system may be focused around the customer—business is all about the customer after all—but it is also effective at keeping track of companywide communications with other important contacts such as vendors, architects, builders, interior designers, etc. My company has been using CRM internally for years, and I am a firm believer in its power to transform a company's operations. There are some common elements of most CRM systems, some major benefits that an integrator has to gain by using a CRM system, as well as some considerations that you should take in selecting and implementing a CRM system for your business.

### Typical Elements of a CRM System

The specific features and workflows of a CRM system may vary from product to product, but most systems will have the following important core features:

■ **Lead/Prospect Management:** Track and manage incoming leads as they make their way through a sales cycle. Qualified leads become sales opportunities and make it into pipeline analysis.



*Implementing a Customer Relationship Management (CRM) system into your business process organizes everyone in your company onto a centralized platform.*

■ **Contact Management:** Keep track of all contacts (leads, customers, vendors, architects, builders, and designers).

■ **Opportunity Management (Pipeline Management):** Track your sales opportunities as you work toward closing a sale. Managing a sales pipeline helps recognize what opportunities are coming up, but can also help reduce the overall sales cycle and provide forecasting data.

■ **Activity Management:** Most systems enable scheduling tasks and events (appointments), as well as logging notes and sending emails.

■ **Marketing Campaign/Lead Source Analysis:** Tracking leads to their lead sources and marketing campaigns helps determine which lead sources and campaigns are most effective (and also which are not).

■ **Customer Service Tracking:** Track incoming service calls, delegate responsibility for follow up, and track the status of service responsibilities.

■ **Workflow Automation:** Most systems provide an interface to automate various elements of CRM using workflows. When a specific scenario is triggered, you can automate the creation of tasks, appointments, and even send emails to relevant stakeholders.

■ **Integration/Synchronization:** We live in a fast-paced, mobile world where

### Web Based Platforms

#### Pros

- Easy to deploy and use; typically navigates like a website
- Remote Accessibility (internet connected laptop, mobile phone, iPad, etc.)
- Low upfront cost, paid monthly per user
- Upgrades happen automatically, no IT requirement
- Upgrades and bug fixes happen quickly
- Backups typically performed automatically

#### Cons

- Data is stored on third-party servers
- Web connectivity is required to access information
- Pay to play—you never “own” the platform

### Software Platforms (Installed)

#### Pros

- Data stored locally on company servers
- Web Connectivity is not required
- No monthly fees

#### Cons

- Installation on a centralized server and each workstation managed by your staff or IT
- Remote access can be problematic or require additional IT infrastructure (Remote Desktop, VPN)
- Higher upfront cost, typically purchased like traditional software
- Upgrades installed and managed by your staff or IT
- Upgrades and bug fixes typically released less often
- Backups managed by your staff or IT

one of the biggest challenges can be communication. Most systems provide synchronization to Outlook, some have mobile applications, and some integrate to QuickBooks and Google Apps.

### Major Benefits of Using CRM

Implementing a CRM system into your business process organizes everyone in your company onto a centralized platform. Many companies suffer from "Information Silo Syndrome," where organizational data is spread out among various employees, and there is no sharing of information in one centralized location. Sharing information between departments will create improvements in your company's customer service capabilities.

Data retrieved from CRM systems will also aid in marketing efforts. Having the ability to analyze which marketing campaigns and lead sources are generating the best business, allow you to make informed, effective decisions based on real business intelligence. Many integrators using CRM also find it very helpful to understand which types of leads result in poor closing ratios, place less emphasis on these, and more emphasis on those with high closing ratios. Additional marketing benefits include the ability to calculate marketing return on investment (ROI), profile customers, perform more targeted marketing efforts, and schedule regular follow ups with clients to help create new opportunities.

Service departments can also reap rewards from using a CRM platform. The service department's ability to respond quickly to existing customer base is a crucial element in the ability to keep these customers happy. Using CRM to track and manage incoming service calls provides case history for all clients, as well as a dashboard for viewing all open service items, assuring a customer doesn't slip through the cracks. Using workflow automation can be especially helpful in this area.

### Selecting a CRM Platform

Before selecting a specific tool, it is best to identify your business objectives for implementing a CRM system. It is essential to know why you are choosing to implement CRM before starting to look for a tool to meet your needs. During this search, your objectives may change slightly based on capabilities of the platforms you're investigating, but you should have a pretty good idea of what you want first.

There are two main types of CRM platforms out there: hosted (online) and software-based (installed) platforms. There are pros and cons to each.

Once you know your objectives and which type of CRM you wish to pursue, you can begin your search online. Most CRM platforms will have a feature list on their website and usually some videos you can watch to get an idea of how things work. I also recommend looking into the level of documentation and support provided on their website—is there an online user guide, is there a user forum or community? You can use this information to get an idea for the various platforms, their pricing structures, and to what degree they meet your objectives at face value. Narrow your search down to two or three platforms and schedule a live online demo—this will allow you to see the platform in action and ask relevant questions to help you make your decision. It's important to have key staff involved in this process to allow for a well-rounded perspective.

### Implementation Considerations

When implementing a CRM solution, try not to implement every feature you want to use right away. Sometimes priorities may need to be adjusted due to the workflow patterns designed into the platform. Other times, various features just won't provide the business intelligence you're looking for until enough historical data has been logged into the system. Here is an example:

- 1 **Companywide Account and Contact Management**
- 2 **Implement Outlook Integration**
- 3 **Opportunity/Pipeline Management**
- 4 **Activity Tracking (Tasks, Notes, Appointments)**
- 5 **Customer Service Case Tracking**
- 6 **Customize reports to analyze company data**
- 7 **Implement workflows for service calls and sales follow ups**
- 8 **Begin analyzing marketing and lead source data**

A phased approach allows your company's operations to continue while strategically implementing a new and better process (and not overwhelming everyone). When presenting a new business process to your team, it's important to highlight the benefits the company will reap as a result of the new solution.

People often resist change, but when shown how a new tool will make their lives easier, help the company become more profitable, and thus give everyone more job security and opportunities for advancement, most will jump on board.

Ryan Brown (ryanbrown@medesign.tv) works for Media Environment Design in Carlsbad, CA.

### More Online

#### Which CRM is Right for You?

To find the right CRM system for your company, visit [www.residentialsystems.com/0511](http://www.residentialsystems.com/0511) for links to some of the more popular platforms.



- Zoho CRM (Hosted)
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- Goldmine (Software)

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• Mounting wing screws pull bracket securely against wall

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LVK1  
Patent pending







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# Taking g! to the Big Easy



DYNAMIC AUDIO VIDEO INTEGRATES ELAN'S NEW LINE IN A NEW ORLEANS HOME



by Derek Dellinger

Jaime Gannon, owner of New Orleans-based Dynamic Audio Video, recently completed the first installation of an ELAN g! system in southern Louisiana, after becoming the first dealer to take delivery of the dealer demo system.

Gannon installed the system in a 6,000-square-foot-home in Old Metairie—just west of New Orleans—with 10 rooms of audio, 12 thermostats, lighting control, a home security system, surveillance cameras, and whole-house music. The total cost for the project came to around \$20,000.

According to Gannon, the family's response to the ELAN system was immediately positive.

"I installed the system on a Monday and came back that Wednesday to ask the customer if he was ready for a demo," Gannon said. "And he said, 'No,

I already figured it out.' In a day he already knew what he was doing—I literally had nothing to show him. The fact that he was able to figure everything out for himself speaks a thousand words."

Gannon believes the strength of the g! system is its consistent interface across platforms. The homeowner has already announced the intention to expand, with plans to add a dedicated home theater and media room.

"This happened to be right at the time the iPad 2 launched, and the family liked g! so much, they went out and immediately bought iPads for both of their kids to control the system and listen to music."

Though the system was well received, the installation was not without challenges. When Gannon began the project—Dynamic Audio Video's first sale of an ELAN g! system, and the first home

*The g! install was the first in New Orleans and southern Louisiana. It was completed by Dynamic Audio Video owner Jaime Gannon. Inset: Jaime Gannon, top right, Douglas and Lina Leonovitz pose with their new ELAN g! system.*

automation system Gannon has installed from scratch on his own—the house was already partially wired, with most wires unlabeled. He was given a week to complete the project before sheet rock was set.

"The g! was different from other products, everything went together surprisingly smoothly," Gannon said. "Since I started Dynamic Audio Video 10 years ago, I've been looking for an automation system that's easy to use and easy to install, and never found anything until now. Despite racing against the clock, everything just fell into place."

Derek Dellinger is the web editor for *Residential Systems*.

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**CAM-BOX KIT** FLC430 includes a drop wire for support; mounting wings for attachment of box to ceiling; 1/2" and 3/4" knockouts in the box, NM94 cable connectors and a mounting bracket and plate for the camera.



1 Cut hole in ceiling tile with a 4" hole saw.



2 Install CAM-BOX. Tighten mounting wing screws.



3 Add drop wire to loop. Attach to framing member.



4 Add bracket to box.



5 Mount camera to mounting plate. Place on bracket. Turn clockwise to lock. Install set screw. Done!

◀ FLC430  
CAM-BOX™ KIT

Patent  
pending



# Boston Acoustics

# Tvee 25 Soundbar Speaker and Wireless Sub

BY DENNIS BURGER

What, you may be asking, does a product that installs in mere minutes have to do with custom integration? A product so simple it doesn't even come with its own remote control? A product that seems designed to replace the more sophisticated (and profitable) sound systems you install?

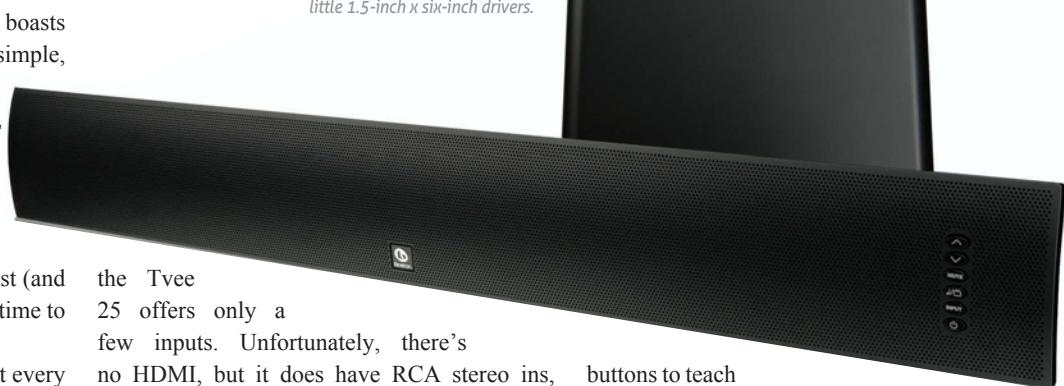
On the surface, Boston Acoustics' Model Tvee 25 soundbar speaker and wireless subwoofer appears to be as purely "consumer" as any product could possibly be. It boasts surround sound(ish) performance in a simple, stylish, truly plug-and-play package eliminating the need for tons of wires, lengthy setups, and, well... you.

But as my Pawpaw was fond of saying, "The best way to get rid of an enemy is to make 'im your friend." So if you've pooh-poohed soundbars in the past (and who could blame you, really?) it may be time to make amends.

Because, let's face it, odds are that not every display you install in a home is going to be attached to a bona fide sound system. And every flat panel you install sans-sound is a veritable black hole of profits.

I'm not implying that selling the Model Tvee 25 is going to make you rich, but after spending a few weeks with this little soundbar, I think it's nice little way to add value to a simple TV setup—value for both you and your client, that is—with much fuss on the part of either of you. Setup, as I said, is incredibly simple, mostly because

*Dialogue clarity from Boston Acoustics' Tvee 25 is astounding given the soundbar's pair of little 1.5-inch x six-inch drivers.*



the Tvee 25 offers only a few inputs. Unfortunately, there's no HDMI, but it does have RCA stereo ins, a very well-placed optical input (positioned laterally within a recess, which keeps the optical cable neatly tucked away in the event of wall mounting), and an auxiliary input for portable media players.

If you're only hooking up one source—a DVR, perhaps—you really only need connect the included optical cable, set the subwoofer and soundbar to the same wireless channel (of which there are four, in case you install multiple Tvee 25 systems in the same home), and press a few

buttons to teach the Tvee 25 the volume and sound mode functions of your IR remote. Adding more devices can potentially, but not necessarily, complicate things a little. I found it easy enough to route my DVR, Blu-ray player, and media box through my TV, and route the display's optical output to the soundbar. If you go this route, you will definitely want to disable the TV's internal speakers, lest their thin, tinny sound mingle with the Tvee 25's more luscious

*(continued on page 43)*

201.762.6429 | [www.bostonacoustics.com](http://www.bostonacoustics.com)

## Kudos

The Model Tvee 25 is an incredibly-simple-to-setup upgrade over standard TV sound for those rooms in which a dedicated audio system isn't an option.

## Concerns

It's so easy to set up, the client might feel like they don't you.

## Product Specs

- System Power
- 150 watts
- Soundbar: Dual 1.5 x six-inch Drivers
- Subwoofer: Six-inch Woofer
- Dimensions: (HxWxD)
- Soundbar: 4-7/16-inch x 31.5 x 4-7/16-inch (112 x 800 x 112mm)
- Subwoofer: 9.5-inch x 10.5-inch x 11-inch (241 x 266 x 280mm)



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# Peerless Mounts

## HD Flow Wireless Multimedia Kit

HDMI's proliferation seemed to happen virtually overnight; one minute everything was component video and then BAM! The entire CE industry switched to HDMI. Then Blu-ray arrived, every TV suddenly became 1080p, and the "analog sunset" darkened HD component video outputs meaning that "no HDMI" meant living in a sad and blurry, low-res 20th century world.



Undoubtedly, many electronic systems contractors face numerous existing component video prewired installs, and if a client wants to upgrade to a new flat panel or projector and revel in full 1080p glory, what's an installer to do? I personally had two clients that would have bailed on \$15,000 projector upgrades if an HDMI retrofit wasn't possible. But sometimes a cable retro isn't possible, and even if it is, with the cost of a lengthy cable and the labor involved, it might end up killing the deal.

At the Ingram-Micro Spring Expo I discovered Peerless Mount's new HD Flow, a wireless multimedia kit designed to transmit 1080p HDMI signals up to 131 feet. My previous experience with wireless (or powerline) HDMI systems had been spotty, and I told the Peerless reps at the event that I'd love to test their system. "But be warned," I cautioned, "if you send it to me, I AM going to try and break it. So only send it if you're sure that it's going to work."

Challenge accepted!

The basic HD Flow system, the HDS100 (\$419.99 MSRP), consists of a single transmitter and receiver. Up to three additional receivers (HDS100R, \$190 each) can be added; however, running multiple units limits transmission resolution to 720p. The transmitter has two HDMI inputs along with component/VGA and composite and analog audio inputs. The receiver has matching HDMI, component, composite, and analog audio outputs. There is no cross-conversion, such as component outputs via component, etc.

*Peerless Mount's new HD Flow is a wireless multimedia kit designed to transmit 1080p HDMI signals up to 131 feet.*

BY JOHN SCIACCA

800.865.8870  
www.hdflow.com

### Kudos

Offers a simple, quick and relatively cost effective solution for adding 1080p via HDMI to areas where running a cable is impractical or impossible; wireless transmission is very stable.

### Concerns

Lack of high-res audio and 3D support, multi-casting drops resolution to 720p, video not bit-perfect to straight cable solution



### Product Specs

- ▶ Dedicated 802.11n, 5-GHz network wirelessly transmits HD audio and video signals
- ▶ Supports multiple video formats includes 480i/p, 720p, 1080i/p (24/30/60)
- ▶ Transmits IR commands for remote component control
- ▶ Wireless transmission up to 131-feet; Wired LAN works up to 500-feet
- ▶ Transmitter supports up to four receivers (in 720p multicast mode)
- ▶ Transmits HDMI, component, VGA, or composite video

(continued from page 42)

The transmitter has an IR output allowing users to control remotely located sources, but this proved inconsistent for me.

I installed the transmitter in the furthest room of my 2,000-square-foot home, meaning that signals traveled through three walls to reach my TV. I also installed it in various locations in my custom showroom. Installation consisted of connecting an HDMI cable from a Kaleidescape M300 player and then powering the transmitter. The receiver connected to my processor via HDMI and the units found each other shortly after powering on the receiver. No other configuration was required.

My first impression was that 1080p HD video looked really good. I watched several upconverted DVD and Blu-ray movies and was hard pressed to notice any image differences between the wireless and hardwired images. (Using the Kaleidescape allowed me to flip very quickly between two separate yet bit-identical feeds.) I was impressed—and relieved—that there was never any stuttering or dropouts. Upon closer scrutiny, I noticed that HD Flow introduced some line twitter and edge artifacts not present on the direct wire. For instance, on the opening pan into the glass building shot of *The Dark Knight*, some of the fine detail in the grating and building edges weren't as stable.

To really examine the video, I loaded the Spears & Munsil HD Benchmark Blu-ray. On test patterns, it was apparent that the HD Flow clipped the Red, Green, and Blue color channels

**“While I cannot say that the HD Flow delivers an image bit-identical to a direct cable, I can say that I doubt 99 percent of the general public would notice the video issues unless they were specifically pointed out.”**

and the extremes of both white and black levels. Also, some of the horizontal pan tests exhibited some choppiness. While this may sound extreme, remember that people don't “watch” test patterns, and these often reveal things unnoticed in real-world video. The errors I noticed in the test patterns weren't bothersome while watching actual program material. I would notice some of the scaling issues, but I am a trained viewer, and after years of viewing, I am sensitive to that.

Sonically, the HD Flow claims to pass two-channel PCM and Dolby and DTS 5.1 bitstreams at 448 Kbps. While the spec says it passes Dolby and DTS, in my experience it did not. I was only able to get two-channel audio from a variety of sources. Fortunately, two-channel PCM is available regardless the format—including when Dolby TrueHD or DTS HD-Master is selected—meaning that when connecting directly to a display, you should be fine.

From an ergonomics standpoint, early on it was obvious that the HD Flow components run hot and are recommended to stand vertically for better airflow. This probably rules out mounting it behind a flat-panel TV.

While I cannot say that the HD Flow delivers

an image bit-identical to a direct cable, I can say that I doubt 99 percent of the general public would notice the video issues unless they were specifically pointed out. The audio shortcomings are a potentially bigger problem, and this definitely won't solve beaming Blu-ray audio to a remote theater. Bottom line: when you can pull a direct cable, do so. When you can't, the HD Flow offers a solution that might allow you to end up looking like a hero.



#### More Online

##### Need More Specs?

For a full spec sheet of the Peerless HD Flow multimedia kit, including a diagram on its home uses, visit [www.residentialsystems.com/0611](http://www.residentialsystems.com/0611).

(continued from page 40)

audio output.

This puppy sounds amazingly good for what it is. Granted, even with its faux surround processing (an upgrade over Boston Acoustic's stereo-only soundbar offerings of the past), the Tvee 25 isn't going to deliver the sound quality of an actual surround sound system. But it's a bigger upgrade over standard TV sound than I would have imagined. Dialogue clarity in particular is, quite frankly, astounding given the soundbar's pair of little 1.5-inch by six-inch drivers.

Likewise, the systems' little six-inch wireless subwoofer isn't going to rattle any rafters, but as long as you position it well, it adds a way more oomph than you'd get from a TV alone, enough so that the bass-heavy showdown between Sex Bob-Omb and evil twin DJs Kyle and Ken from *Scott Pilgrim vs. the World* actually packs a bit of rumble. Yes, if you crank the volume, the subwoofer gets a

weensy bit bloaty. But if you stop thinking about the Tvee 25 as an alternative to a dedicated sound system and think of it as an upgrade to stock TV sound, the audio quality is surprisingly satisfying.

**“If you've pooh-poohed soundbars in the past (and who could blame you, really?) it may be time to make amends.”**

In fact, I'd go so far as to say it's in an entirely different aural class from most soundbars I've listened to. I never found myself thinking, “Who needs surround speakers?” but the Tvee 25 does deliver a rich, penetrating sound that adds as much

depth to action scenes as is does clarity to the talky bits.

Musical performance is also better than you would expect. It's not mind-blowing. For instance, you will never find yourself waxing poetic over the imaging or soundstage, but with Music Mode engaged (which, as far as I can tell, merely disengages the Tvee 25's faux surround processing), everything I threw at the Tvee 25—from old school hip hop like RUN D.M.C. to easygoing indy fare like Alex & Sam—sounded appropriately hip-hoppy or easygoing and indy. Crank the rock too loud and things get a little ooky, but not nearly so quickly as you'd expect.

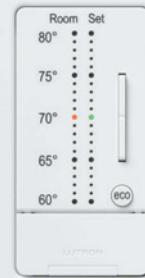
If you're doing demos in your showroom, though, perhaps the most effective thing you can do with the Tvee 25 is play it for a bit and then turn it off. As soon as your clients hear the difference between this and built-in TV speakers, it'll practically sell itself.



**IOGEAR** has released the Universal Wi-Fi N Adapter for connecting AV devices to a home network via a wireless router. According to the company, the Universal Wi-Fi N Adapter works with any device featuring an ethernet port, with no brand or device-specific WiFi USB adapter needed. IOGEAR's Universal Wi-Fi N Adapter supports the IEEE 802.11n standard, meaning there is no need for cables or re-wiring of the home.



**Lutron Electronics** has begun shipping a thermostat for its RadioRA 2 system, which allows the system to control 60 percent or more of a home's energy use, including lights, shades, stand-by power from small appliances, and temperature. The system, which is scalable to 200 devices, operates via Lutron's Clear Connect wireless. The RadioRA 2 thermostat features a three-part design, including seeTemp homeowner interface, a wireless temperature sensor, and the HVAC controller.



**AMX** has released an Android app, developed by AMX Authorized Product Partner Touch Panel Control, which transforms an Android mobile device into a fully functional touchpanel for controlling AMX system platforms. The application provides real-time, touch control of AV systems, lighting, shades, room temperatures, and more from smartphones running the Android operating system..



**Harman** has started shipping the Revel Architectural Series loudspeakers, a complete lineup of 21 in-wall and in-ceiling speakers featuring a patented, tool-free installation mechanism. The Architectural Series includes 11 in-wall models from a 6.5-inch-woofer two-way to a nine-inch-woofer three-way speaker, and 10 in-ceiling models ranging from a four-inch-woofer two-way to a three-way LCR speaker.

For more information on all of these products, visit [residentialsystems.com/0611](http://residentialsystems.com/0611)

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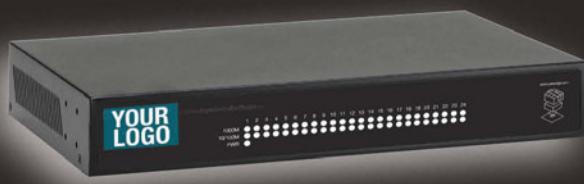


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### Pakedge Device and Software

has introduced the SW16-16PB 16-port power-over-ethernet switch. Each port can be individually power cycled. Power to VOIP phones, PoE cameras, access points, and more can be accessed remotely and cycled for troubleshooting or system health monitoring. The SW16-16PB can be configured via the web using iPad, iPhone, keypad or laptop with its graphical user interface (GUI). It can also be configured using a traditional command line interface (CLI) for more sophisticated networks.



**Atlona Technologies** is now shipping its AT-HD4-SI40SR and AT-HD4-V110SR high-speed HDMI extender kits. The AT-HD4-SI40SR extends full HD 1080p or 1920x1200 signals from an HDMI source up to 130 feet over a single Cat 5/5e/6/7 cable. Featuring HDBaseT technology, the AT-HD4-V110SR extends HDMI sources up to 350 feet at 4Kx2K resolution while providing bidirectional RS-232, IR, and ethernet pass-through. In addition, the units provide support for Deep Color, HDCP, and full 3D, while preserving 7.1-channel digital audio, including DTS-HD and Dolby TrueHD.



**Meridian Audio** has introduced the Media Core 600 Sooloos digital media system with a more powerful system core. The Media Core 600 provides a system core, storage, and multi-zone rendering in what the company says is a complete Meridian Sooloos multi-zone solution in a single, rack-mountable case. Incorporating a pair of 2TB hard disk drives configured as a RAID 1 array, Media Core 600 provides enough primary storage for around 5,000 albums and maintains an automatic mirrored copy of the collection.



**Velodyne** has introduced the SC-600D amplifier featuring a Class D amplifier, which improves efficiency, reduces its weight to 17 pounds, and reduces wasted energy by turning AC power into usable output, according to the company. Designed to power Velodyne's SC-600 IW in-wall subwoofer and SC-600 IF/IC in-floor/in-ceiling subwoofers, the plug and play SC-600D is a 400-watt dynamic, 200-watt RMS power Class D amplifier.

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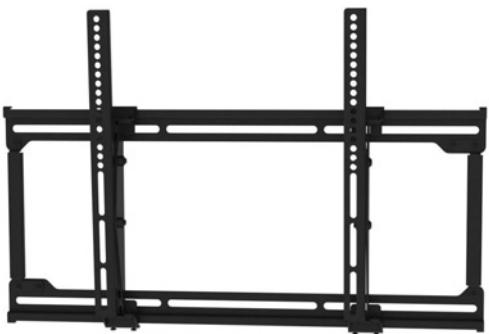
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**Video Mount Products** is now shipping its FP-XMFT "extra medium" flat panel wall mount. With an MSRP of \$108.95, the low profile FP-XMFT holds most medium-sized flat panels from 32- to 52-inches and up to 120 pounds. The FP-XMFT has a maximum flat panel hole pattern of 616 millimeters by 400 millimeters and is available in both black and silver powder coat finishes..



**Crestron** has revealed the latest addition to the company's line of standalone HDMI AV solutions. The HD-Scaler handles standard and high-definition video sources with resolutions up to 1080p60 progressive and 1080i30 interlaced, as well as computer sources up to UXGA 1600x1200 and WUXGA 1920x1200. The HD-Scaler will also adjust aspect ratios to match the native resolution of any video display or computer monitor.

**Sanus** is now shipping the VisionMount VMF308 Super Slim full-motion wall mount. The VMF308 is 1.1-inch deep and offers full-motion capabilities. The VMF308 can be used with 26-inch - 47-inch TVs of any variety: ultra-thin and standard depth LCD TVs, as well as plasma and LED TVs. Featured technologies on the VMF308 include fingertip tilt, a cable management guide, a gliding system, and a decorative cover.



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# A Smarter System

## Savant Refreshes Line with New 'Smart' Moniker and Improved Dealer Features

When Savant was founded seven years ago, it delivered the first Apple-based home automation and control system in the industry. This year, with its Apple commitment as strong as ever, the Osterville, MA-based manufacturer is refreshing its line with new dealer-centric features and branding that it hopes will resonate better with end-users.

"There were a lot of reasons to do it," said Savant president Jim Carroll. "We incorporated a lot of installability, usability, and reliability features across the entire product line."

On the marketing side, Savant jettisoned its Rosie moniker, going instead with a SmartMedia, SmartAudio, and SmartPro branding, in response to dealers that said they needed products that were more end-consumer focused. "This makes the overall solution set fit together," Carroll noted. "We had this Protégé name that didn't hang with the System2, then the System12 and System24 nomenclature."

Savant's decision to "un-embed" the Mac mini from its control platform came about after the company designed a more redundant scheme (two Mac minis) that required more flexibility in case one stopped working. Now, one Mac mini can theoretically fail, and the end user will not even notice it happened.

"That was a feature that especially caters to the commercial side, but is also very applicable in residential," Carroll noted. "We've had a very good experience with the Mac mini. It's a highly reliable piece, and the failure rates are very low. But, in the unlikely event that that would happen, with the old configuration, the entire box on the AV side of it would have to be unwired so they could pull the box out. Now if you lose a Mac mini, everything stays in place."

Savant also added removable fan trays on its commercial-centric SmartProSeries. "Whenever you have fans, dust collects, and over time, dust becomes an inhibitor to air flow. So the



Savant's Multi-zone Media Control and Truelimage, both on iPad 2s



SmartProSeries has these removal fan trays that can be washed easily and reinstalled, or you can simply swap it out and bring it back to your office and clean it there and just rotate stock through without a service interruption," Carroll said.

For more installer convenience, Savant has upgraded to HDMI 1.4 connectivity, no longer uses phoenix connectors on its controllers, and has altered the industrial design of its rack-mountable components to look better outside rack enclosures in applications like condos, townhouses, and MDUs, where space is a premium. "A full system can stack up to something less than 10U, and it's got a nice look with its high-gloss industrial design that it can sit in a credenza or just open air underneath the TV that hangs on the wall," Carroll said.

—Jeremy J. Glowacki

## LinkedIn

### A Closer Look at the Smart Line

From lighting integration, media and AV distribution, stand-alone home theater control, or whole-home automation, Savant SmartSystems are designed to be tailored for any application. Each Savant SmartSystem solution includes an iTunes-based digital media server when paired with an external host. Here's some of what the family includes:

The new SmartControl SSC-0007 and SSC-0025 are control-only devices that have been engineered to connect with audio/video, lighting, climate, security and more. Both models fit neatly within a compact 1U half rack-style enclosure.

Savant's SmartAudio SSA-3000 can be packaged in a 2U enclosure and deliver stereo preamp processing, including independent volume control, balance, bass, treble, and mute. SmartAudio enables music distribution in up to eight zones, with the flexibility to play the same content throughout the home or unique content in each room simultaneously and independently.

Savant's SmartVideo SSV-1000 provides a single zone of TrueCommand (Savant's on-TV menu system), video processing and scaling, video switching, and includes popular control formats for residential and business applications all within a 1U enclosure.

### More Online

What's your experience working with the new Savant Smart line? Visit the Residential Systems LinkedIn Group to let us know your story.

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