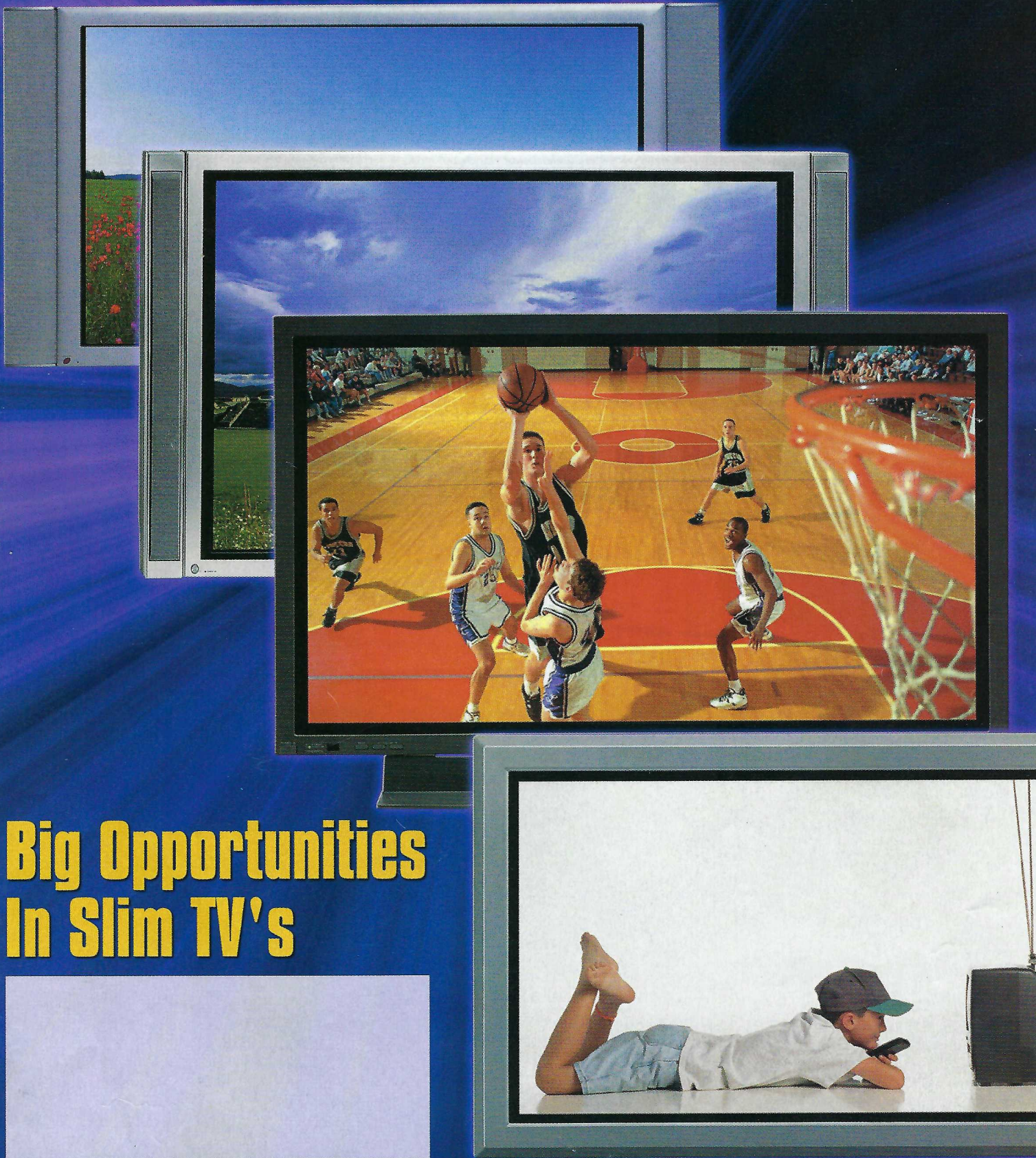# AudioVideo

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## Big Opportunities In Slim TV's

# WHOLE-HOUSE WIZARDRY: AN EYE ON CONTROL SYSTEMS

*A look at a category that creates demand — and profitability — for A/V retailers*

### by Micah Sheveloff

The evolution of the hi-fi business has spawned the creation of a new type of electronics retailer called the custom integrator. At first, the need for the integrator was driven by such advances as pre-wired audio systems, in-wall speakers and projection television. Soon to follow, technological advances began to drive the audio/video industry closer to other in-home systems, such as security, climate control (HVAC), and telephony. Computers and the Internet became the final pieces of the puzzle, allowing integrators to merge any combination of electronic systems, creating what is known today as whole-house automation. This vast new world has created a need for highly professional execution at both the design and installation stages, associating an added value with the electronics retailer that has elevated their status alongside all of the critical home construction and renovation contractors.

And the control system is the backbone of whole-house automation — the technology that has allowed integrators the flexibility to tailor a unique package, capable of answering the needs of each individual consumer.

"The control system is the central point of integration," explained Jason Frenchman, corporate communications manager for Crestron, a control systems manufacturer with deep roots in the commercial marketplace. "Security, HVAC, and audio/video can all be integrated through our system," he adds. "Crestron manufactures both the control system hardware, and the 'front-end' screen, used by the homeowner to access the technology." The consumer can view what is being picked up by security cameras from any room in the house, distribute both audio and video throughout the home, and create customized lighting scenes, all accessible through buttons on their control panel. Crestron systems are professionally programmed by their dealers at the time of installation to insure that each consumer's needs are met, and that the overall operation is intuitive. Crestron systems can be controlled via the Internet using a standard protocol, so that a homeowner can use a computer to monitor his apartment in New York City while on a ski vacation in Aspen.

## Customers 'get' simplicity

"I always tell my customers that it doesn't matter how much stuff you buy — if you can't run the system, the purchase was a waste," explains Kevin Buchanan, president of Audio Video Interiors, an authorized Crestron dealer in Houston, TX. Buchanan has been selling automation since the beginning, and he remembers back to the days of two-channel audio: "I would be explaining all of the many features found on a high-end receiver, and the customer either wouldn't get it, or they would fall asleep," he muses. "I learned the value of selling conceptual things, such as: 'You can turn it all on with two buttons!' That, they get," Buchanan explained. It also appears that there is a relationship between consumer comfort and their willingness to spend more money. "If people can run their stuff, they will buy more of it," Buchanan adds. His company recently sold a substantial system to a retired gentleman. "This guy," he relates, "didn't know anything about the technology he was getting, other than the fact that his user interface would remain consistent, even as new components became available in the future. People want their entertainment systems to be an escape, and they can be just that, as long as there is not a lot of frustration.



**Crestron's Isys TPS-6000 advanced touch panel (above) and Pro2 control system (right)**
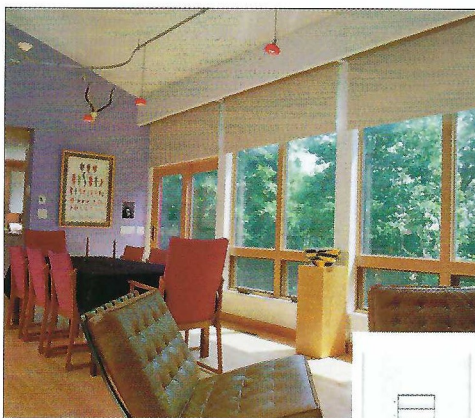
## Recognizing a fertile category

Lutron is a company based in Pennsylvania, with a long history in electrical distribution and lighting control. Today, Lutron sells over 11,000 products worldwide, and holds over 180 patents. Traditionally, Lutron reached consumers through a network of electrical contractors; at least until the audio/video community began to realize the opportunity that existed in this fertile category. "We became involved with CEDIA almost from its inception, bringing central home lighting control to that group of dealers," reported John Forney, vice



**Above/right: Lutron's Sivoia motorized window shading system, in use. Inset: The Lutron SeeTouch lighting control**

president of global A/V sales at Lutron. "We offer programmable, processor-based systems, as well as some very basic lighting control products," he added. Forney admits that Lutron has found a valuable group of dealers residing beneath the CEDIA umbrella. "These are people who are excited to embrace new technology, and they have the ability to sell these systems as well," he stated. Additionally, Forney has found that the CEDIA dealers are generally savvy enough with a personal computer to be able to handle the programming involved with the more complex Lutron lighting control systems. In addition to CEDIA, Lutron has also found success working with the home theater distribution model, as represented by members of the AVAD group. "AVAD is capable of reaching out to many of the smaller dealers across the country, and we have experienced really good growth with them," Forney relates.
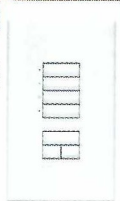
The Lutron product selection begins with single-room/single-function dimmer controls. Although manual dimmer controls are effective solutions, they are hardly high-tech. Lutron also offers a product line called Spacer Systems, which are single-circuit controls like the basic dimmer. However, they can be controlled by an IR or RF remote control. These are simple replacement units, designed to drop-in in place of traditional home light switches or dimmers. The Spacer System components are available as either wall-box units, or to operate table-top lighting applications. The GRAFIK Eye is a whole-room system that has been available from Lutron for several years running. Lutron has found this design to work perfectly for home theater designers looking for lighting control.

The Radio RA system uses RF instead of IR to communicate between components, making it ideal for whole-house lighting applications for homes up to approximately 4,000 square feet in size. "Homeowners can touch the 'away' button on the control panel, and turn off all of the lighting in the house, or if they prefer, they can have it leave a few lights on, or have them cycle on and off via an internal clock," explains Forney. The Radio RA system can also be triggered by a car-visor control, so that a pre-selected group of entry lights can be lit from 500 to 1,000 feet away, as the homeowner returns in their automobile. The adaptability of the Radio RA package is an asset for dealers because it can easily be retrofitted to work in an existing home.

The HomeWorks Interactive system is an advanced lighting control package designed for new construction or major renovations, because it requires wiring from each room back to a central processing unit. The HomeWorks Interactive's processor communicates with keypads, dimmers, switches, preset scene controls and central switching modules capable of operating lights, relays, motorized shades and other remotely controlled devices. Each processor can control up to 256 lighting zones, and a maximum of 16 processors can be integrated into one HomeWorks package.

Forney fully expects the concept of central home lighting to make its way into a broad market, predicting that a high percentage of homes at $250,000 and up will soon feature the technology. "The issue is product awareness amongst consumers," he explained. "Central lighting control truly enhances the experience of home life," Forney adds. Lutron is also involved in the motorized-window-treatment marketplace, having acquired VIMCO in 2000, a manufacturer of both motorized and manual window treatment products.
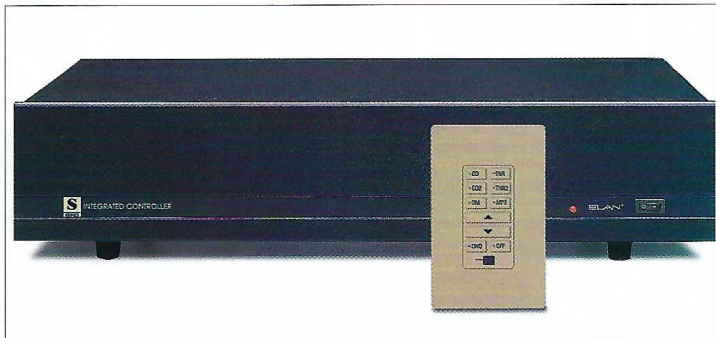
## Automation & entertainment

Elan Home Systems' marketing and international sales manager, Michael Murray, refers to their niche in the marketplace as the automation and entertainment category. "A lot of our dealers across the U.S. are entertainment-oriented," Murray explained. "Home theater is king, and it is the most visible form of entertainment in the house," he added. The evolution of the stereo "rack" has led to a distributed system, where quality audio and video can reach every room within the home. "Everyone is doing different things at different times throughout the house, so they should have access to high-quality entertainment from room to room," Murray explained. "Our goal is to deliver a package that is simple to use and works every time, and that is also high quality," he adds. Murray explains that automated systems have the capability to control countless devices, such as lawn sprinklers and garage doors, and even provide access to the Internet from room to room throughout the home. "Our system can act as an intercom, and be integrated with the telephones in the house," he states. "An automated system can be designed for the whole house, or a simple one-room application," says Murray.

One of the key components to selling an automated system successfully is simplicity. "There is real value in providing this technology to consumers, but it must be explained in such a way that they don't become overwhelmed and run for the door," cautioned Murray. "Individuals can do almost anything they want in each room, and virtually at the touch of one button," he adds. "Those are the points that must be emphasized to the consumer." Elan Home Systems has recently reached an agreement to showcase its products at Tweeter stores across the country. "We showed them all of our products, and designed a program that would work well in a large organization," Murray explains. "We took the time to demonstrate how to sell an Elan system, and how to install one as well," he says.



**Elan Home Systems' System 6 integrated multi-zone controller**

## 'In-home audio/video'

"We call this category in-home audio/video," explains Tweeter custom buyer Michael Meares, who is confident that control systems will complement the products currently available at Tweeter. The staff at Elan has teamed up with the training department at Tweeter to insure that there is a comfortable starting point from which to educate both the sales and installation people. "The skills that our installers and sales staff need in order to be proficient with these products are more easily communicated because of the intelligent 'systems' approach that Elan has used to get us started," Meares reports. Elan's Murray wholeheartedly agrees with the strategy: "In order to make the transition into distributed audio as smooth as possible for a large organization, we introduced the folks at Tweeter to a basic 'Z' system, which is a package that is easy to wire in the home, and easy to present conceptually to consumers," notes Murray. "We hit a price point that they felt comfortable with, and their installers can be brought up to speed rapidly on installation requirements," he adds. Meares emphasized that everyone at Tweeter is excited about being able to provide consumers with the luxury and convenience associated with whole-house electronics. He highlighted this likely scenario as one of the many benefits Tweeter will now be able to offer homeowners: "Our customer is out by the pool, listening to music on outdoor speakers. The doorbell rings, the music automatically mutes, and the customer can use the telephone to instruct the UPS driver to bring their package out back to the pool!" "It's a simple message," states Murray. This technology is affordable, an excellent value, and it's easy to use. It truly enhances life at home."

AMX is a company with 20 years of experience in the control systems industry. "Initially, home theater was the driving force behind the custom installation business, which quickly led to the need for a control system because consumers had six or more remotes sitting on the coffee table," suggests David Nowak, national sales manager for the residential division of AMX. "At first, our job was to simplify the one-room theater. Gradually, the control systems industry began to evolve along with other emerging in-home technologies such as complex lighting, environmental controls, security, and entertainment. Now, the products we build seamlessly link all of these systems together," Nowak explains. "Our goal is to provide a simple user interface with a high degree of automation, so that the systems monitor themselves," he adds. AMX has been noted for its ability to link their NETLINX system directly to the Internet, without the need for a personal computer. All of the touch-panel functions can be duplicated on a computer screen, however, giving the homeowner the ability to easily monitor and control in-home systems from almost anywhere.

AMX continues to be the exclusive control systems supplier for CEDIA's Home of Electronic Lifestyles display, which travels to many shows around the nation. Additionally, AMX has brought advancements and convenience to within the home theater experience. As an example, the Internet connected NETLINX system can be programmed to monitor the lamp life on a video projector, and send an e-mail to the service technician requesting a service call, who shows up with a replacement before the old bulb actually has a chance to fail! AMX has also built added value into their products for consumers by making certain that the new NETLINX offerings are backwards compatible with older AMX components. This allows consumers to bring the latest technology into their homes, without having to uproot their entire control system.

Nowak envisions a bright future for the control systems industry, and vast opportunities for dealers who sell and install the evolving technology. "I believe we will see user interface become even more simplified, especially as advancements make the actual control systems more complex," Nowak surmises. In addition, Nowak predicts that the control industry will take further advantage of the powerful Internet, and that many systems will have to become more costffective, in order to reach a broadened market. "I suspect that even as control systems become more capable and increasingly complex, that the programmability will be simplified for the installers in the future," he adds optimistically.

Suddenly, the custom integrator is in high demand. Consumers are intrigued, and they are buying everything from the small home theater to the vast whole-house automated package. The control system lies at the root of almost every sale. Simplicity, luxury, convenience, and security all wrapped up into one neat proposal. Retailers indicate that control systems increase both the overall ticket size and the profitability of the in-home electronics purchase, while providing an opportunity to establish a long-term service-based relationship with the end user.

What in the name of elegant gadgets could be better than that?