



Kramer Electronics
<http://www.kramerelectronics.com>

18, JULY 2005



FROM OPHTHALMOLOGIST TO A/V SPECIALIST...

KRAMER AND JORGE FATJO SEE EYE TO EYE ON SMART HOMES

Living in Papagayo, Costa Rica means a sun-drenched beach, lush greenery, crystal blue skies, and two-way communication with your home technology systems. That's right. With the integration of Kramer Electronics products, a seaside escape becomes a true "home away from home," rather than simply a beach house. Owners can operate their lighting, climate, irrigation and home entertainment systems from any room in the house or from remote locations, thanks to state-of-the-art Kramer equipment coupled with sophisticated programming and innovative design.

The brainchild of Jorge Fatjo of Home & Office Technologies (HOT), this 2,000-home community, Project Grupo Residencial Papagayo, offers owners the smartest homes in the world, on the tranquil shores of Guanacaste. A retired ophthalmologist, Fatjo got the idea for his business when he was looking for someone in Costa Rica to integrate his own home systems but preserve the natural environment. He found his niche when he realized that there were lots of people who did parts of the integration, but no one who saw the "big picture" -- putting it all together in a single communications system with a single touchpad, achieving harmony between architecture and technology.

"The market has plenty of 'houses on the beach,'" said Fatjo. "Our angle is to provide a technological building in a natural environment, where owners can have all the comforts of home at their fingertips, no matter where they are."

The 1500-acre development features homes ranging from \$1.4 million to \$14 million, and owners have a choice of several different floor plans and a series of "smart home upgrades" that efficiently use natural resources and protect the environment. The houses offer controllers for internal two-way communication, and they link both to the central control center and to other selected homes around the world. Routine tasks are performed automatically, and repetitive tasks are done by the system, rather than by the homeowner. The systems can be activated from remote locations and are "smart" enough to act depending on the circumstances. For instance, the sprinklers know not to turn on if it rains, the lights do not turn on in the day time, and the air conditioner turns off when the last person exits the house. Every design is created for environmental harmony with the use of underground wiring.

The project showcases Kramer Electronics equipment in both commercial and residential applications. Kramer audio/video switchers, scalars, converters, distribution amplifiers, isolators, equalizers and processors are used throughout the project.

"The Smart Homes are a great example of Kramer commercial products being used in both a control setting and in a residential situation," said Clint Hoffman, vice president of International Marketing at Kramer Electronics. "These systems are the cream of the crop, and because of Kramer's flexibility and technology, we were able to meet the needs of the entire project -- from the control center to the home entertainment center."

Kramer in Command at Control Center

The central control room monitors the Smart Home systems, using a variety of equipment. Kramer signal distribution amplifiers provide RF to all TVs both inside the house and at the center. They also provide composite video signals from in-home security cameras to control room monitors. Kramer signal converters help to convert component to composite video for use with touch panels, and to convert any incoming signals. Kramer video opto-isolators, base band correctors and color equalizers all contribute to the crystal clear pictures that are seen on the screens that monitor the homes. Kramer cables and accessories switch RGBHV to VGA and vice versa, and rack mounts provide neat and organized installations of all the necessary equipment to keep the control center running smoothly.

Commercial Meets Residential for Whole-House System

The Smart Homes offer multi-zone audio enabled by Kramer audio switchers and volume controllers. With a single location for the audio sources and sound from all of the sources to all zones within the house, the switchers and volume controllers provide the ability to control volume from any room in the house. They also link the source, volume control and lighting controls.

Kramer video switchers and signal converters are coupled with the audio switchers for whole-house distribution of crystal clear images, regardless of format. They distribute RF signals to all televisions without clarity loss and

provide component sources to different plasmas or projectors throughout the house. The signal distribution amplifiers also offer co-axial digital connections to several receivers, along with XVGA to CAT5 conversion.

HOT's unique touch panels use Kramer signal converters to convert component to composite video while operating the system. The converters also allow the change from S-video to composite for picture-in-picture (PIP) functions, as well as display of various VGA sources on multiple types of monitors – from VGA panels to consumer televisions.

Selected for their convenience and reliability, Kramer signal converters highlight the usefulness of the PIP application. For example, the owner can use the PIP function to switch to any of the security cameras in the home to view activity. PIP can also be used as a character generator for caller i.d., so that the homeowner can see who is calling from any TV or computer screen in the house.

Homeowners can also make changes in their entertainment repertoires one time and affect all locations that are linked to the Smart Home. By using an internet media server, a person who has three linked residences and wants to add or delete a CD in his collection, he can do it once through the server and the result will transfer to all three locations.

Kramer Kudos on Reliability – from Technology to Delivery

In choosing switching products for the Smart Home project, Fatjo looked for a company whose products demonstrated reliability in every way. "The equipment has to work every time in every situation – it has to work with the system protocol, we have to be able to rely on consistent inventory and delivery, and it has to work every time the owner pushes the buttons," Fatjo said. "We chose Kramer because of its reliability and performance, as well as its value for the money."

Fatjo also noted that in a competitive market, timing is as important as cost. "The market is so hot that sometimes being able to deliver is more important than being the least expensive. Kramer helps me to win on timing, because I know they will deliver on time, every time," he commented.

Kramer's serial connections on every switcher were also a primary factor in the selection. These features allow for easy hook-up to the touchpad, a unique feature in HOT's Smart Homes. "We wanted a single touchpad that did everything and looked nice," he said. "Every system normally has its own controller, and you end up with six or seven versions on your wall or in your family room, and they all look different." The HOT touchpad connects to every source and displays information on the entire house. It can even be used to read e-mails from the computer or to turn down the lights in an adjoining room.

The Smart Houses have brought the future home today by combining the technologies of the Ethernet, internet, telephone, serial connections and analog lines with an easy-to-operate interface, intuitive menus, and future flexibility. "We're offering comfort, operation and maintenance simplicity, security and entertainment in a single package that can be accessed from anywhere in the world. We've created a way for architecture and technology to coexist, and the result is a Smart Home that is true to the environment," Fatjo said.

[Back to Installations](#)