

SPECIAL ISSUE: 2010 HOME OF THE YEAR AWARDS

ELECTRONIC HOUSE

May/June 2010

SMART | GREEN | SAFE | FUN

VIDEO NIRVANA

OUR HOME OF THE YEAR IS PICTURE PERFECT

PLUS
AWARD-WINNING
FAMILY ROOMS, THEATERS,
MASTER SUITES AND MORE



This theater is heavy on the horsepower, while cleverly designed acoustical treatments create a decor of their own. *Photography by William Psolka.*

THE TEAM

System Design and installation

EDG
Piscataway, NJ
www.edgonline.com

Acoustics
RPG Diffusor Systems
www.rpginc.com

Designer
Brian Webb
New York, NY

Builder
L.M Reid Group
Wilton, Conn.

JUST CALL THIS HOME THEATER "The Wave." And by wave we refer to the distinctive wood ceiling piece that acts as an important acoustical element. The wave also refers to this theater system's powerful sound waves that are controlled by a creative blend of design and acoustical innovation.

The homeowners' intent was not to have an acoustically perfect home theater. "They just wanted a kickin' theater, with really high performance and a pretty basic decor package," says Ed Condiracci, project manager with high-end electronics system company EDG in Piscataway, N.J.

With the back of the space open to a sitting area and game room, it is not an ideal sonic shell, Condiracci admits.

"We solved the issue of the open back with horsepower."

And by horsepower, he means studio-grade-quality Genelec speakers. Though just to say the three Genelec HT210B front speakers and four AIW26 surround speakers are powerful thoroughbreds is not giving them credit for their sophisticated design and nuance.

The [front speakers] are active speakers with their own built-in amplifiers and active crossovers, and that makes them really efficient," says Condiracci. "Their numbers in terms of watts per channel are not that impressive." But with their high efficiency, they sound.



like they put out a lot of juice. "They help create a very simple system, with a Lexicon processor connected straight to the powered Genelecs." No separate amps are required for the front speakers, though four matching Genelec amps power the side surrounds.

The Genelecs may be at the heart of this powerful home theater system, but this room's soul is composed of acoustical treatments that create a decor of their own.

EDG collaborated on the design with RPG Diffusor Systems and theater set designer Brian Webb. The ceiling and scooped bass trap in the front of the room were largely the result of Webb and Jeff Madison at RPG, and the style really wasn't altered much since the early design meetings, according to Condiracci.

"We had talked about a motorized curtain between the home theater area and the back of the room," Condiracci says. "but the room and layout didn't fit that."

The wavy ceiling piece is designed largely to diffuse sound with its uneven surface, but it also plays other important acoustical functions (see sidebar, page 21). And above that is an isolated ceiling that uses 5/8-inch QuietRock soundproof drywall to prevent sound from leaking into the living space above.

The scoop below the screen helps tie the room together visually-and serves as a giant trap to absorb excess bass. Hidden behind it are the system's two subwoofers, which straddle the centerline of the 132-inch-wide Stewart Filmscreen screen.

More traditional acoustical treatments are hidden behind the theater's fabric walls. They include broadband absorption panels in areas prone to first reflections and combination panels to offer a mix of high-frequency diffusion and mid- and low-frequency absorption.

Lest we forget, there's also a three-chip DLP Runco projector with an anamorphic lens to produce superwide CinemaScope images. And let's face it: When the lights go down, the real stars of the show are the projector and speakers.

This room's stunning acoustical features simply help those Genelecs complement the Runco's video and allow the systems to perform to their full potential.

If sitting in the motorized CinemaTech seats gets old, the owners can hang out in the back of tile room, which is equipped with its own Runco 50-inch plasma.

The casual area in back also provides great sight lines for viewing sports. But to ensure an engaging surround field, EDG placed a second set of surround speakers toward tile back edge of the theater: The casual back-of-the-room space has its own speakers, but the two audio/video systems are controlled separately by a Crestron home control system-and it's easy to figure out which system takes audio priority.

Hint: It's the one with the really cool acoustical treatments. -SC **EH**

SYSTEMS & EQUIPMENT

Projector: Runco

Screen: Stewart Filmscreen

Speakers: Genelec

Processor: Lexicon

Control: Crestron

Home Theater Seating: CinemaTech

Acoustic treatments: RPG



INTEGRATED HOME
\$50,001+ **GOLD**

This high-style Manhattan apartment brings video aesthetics to an all new level by Steven Castle. *Photography by William Psolka.*



THE TEAM

System Design and installation

EDG
Piscataway, NJ
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Architect

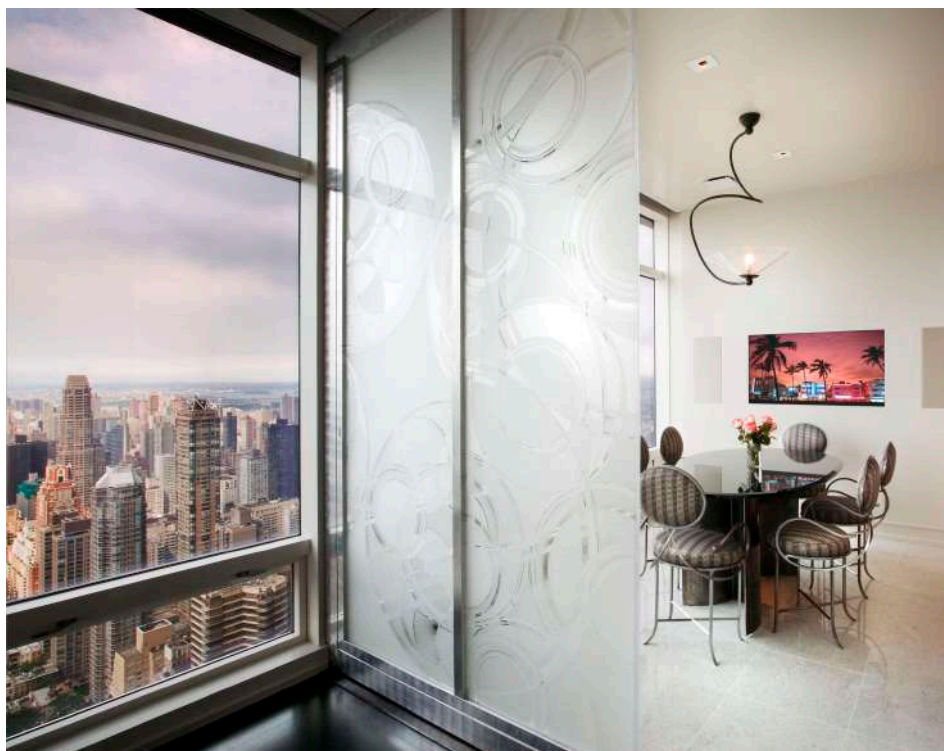
Andre Tchelistcheff
Architects

Builder

Xhema Construction
New York, NY



THE PICTURES SAY IT ALL. Three 65-inch Panasonic plasma HD TVs, flush-mounted side-by-side, form a video wall that can display content from 18 different sources. Look even more closely, and you'll find that all the TVs in this Manhattan apartment are not only flush-mounted - in the walls, the walls even cover the TVs' bezels so only the screens remain visible. The skyline views out of the windows are pretty nice, as well.



But it was the eye candy inside this 2,400-square-foot spread that was of most concern to the homeowners or at least the tech-savvy man of the house, whose living room man cave with its video multiplex of sources is the envy of any audio/video enthusiast.

"He had a set-up in his previous home with 12 tube TVs and a video matrix so he could watch all these different shows on them," says EDG technology consultant (Piscataway, N.J.). "Needless to say, this video matrix is a huge upgrade."

The homeowner can choose among feeds from up to 24 different video sources, including 18 cable boxes (three of which have DVRs), three DVD players and three Mac minis. The sources are routed through an Extron matrix switcher and an RGB Spectrum picture in picture processor that multiplexes them and allows six outputs to each of the TVs. He can view 18 sources or 18 different channels simultaneously with six per screen or one large picture in the middle and with six options shown on each side.

Although the TVs will show 18 video feeds at a time, he can choose among all 24, says Montgomery.

That includes a high-def Blu-ray player; And if he has someone over to give a presentation, he can use his Crestron touchpanel to dig a little deeper and summon the video feed from one of the Mac minis.

This tech-happy guy doesn't mind digging down through home control screens. He's a tinkerer. "He wanted it complex enough so he could go in and play around, but simple enough so his wife could come in and press one button," says Montgomery.

When the lady of this video house wishes to watch something in the living room, she indeed presses just one button, and the three 65-inch plasmas are filled with pictures from a DVR on the center screen, flanked by two of the DVD sources. Though she may opt to watch any one of the other flush-mounted TVs in the apartment.

MORE THAN FLUSH

Each of the 11 TVs in the apartment is completely flush-mounted - going so far as to hide the bezels. And while that provides a strikingly clean appearance, it's hardly the ideal installation. That's because with the exception of the screens, the TVs had to be fully enclosed in the walls, making access for servicing difficult.

SYSTEMS & EQUIPMENT

Control: Crestron

Lighting: Lutron

Whole House A/V:

Crestron

Video Displays:

Panasonic, Sony, Sharp, Earth LCD, Seura

Video Multiplexing:

Extron, RGB Spectrum

Speakers: B&W, Sound

Advance, Sonance

A/V Processing: Rotel

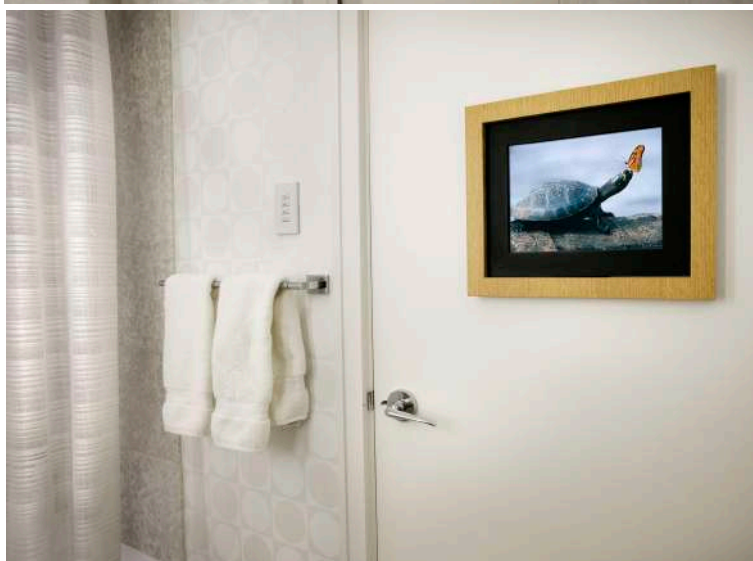
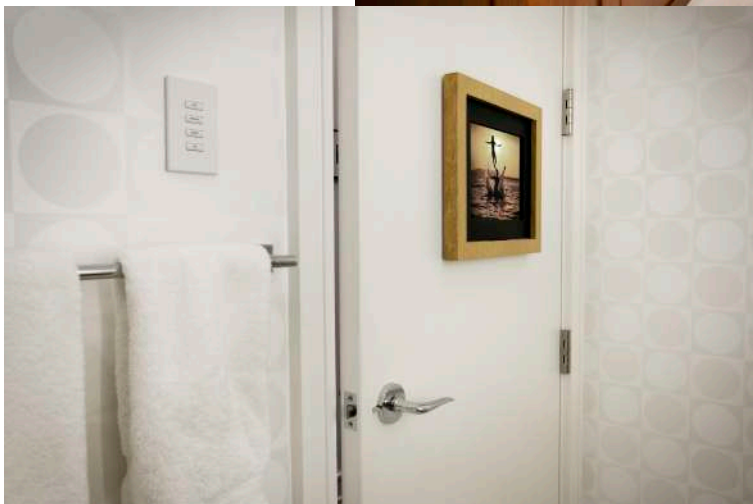
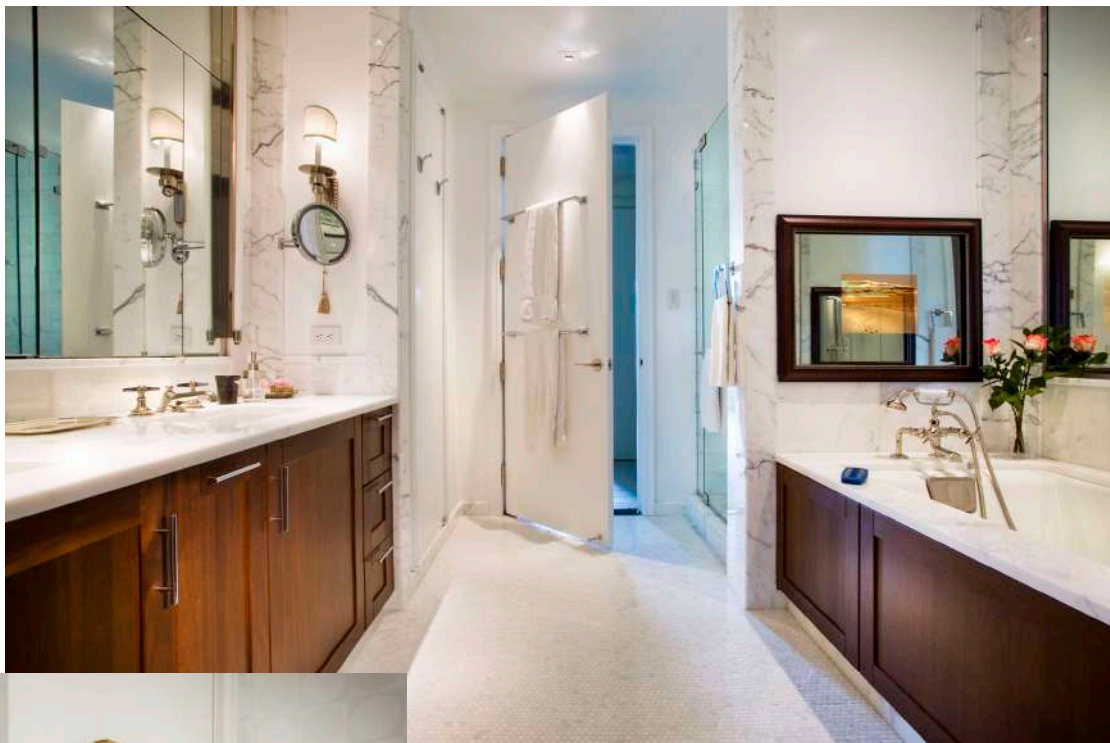
Blu-Ray Player: Sony



At a touch of a button on a Crestron home systems remote, the owners of this skytop spread can shut off the outside world-or at least filter it. Both motorized Lutron Sivoia solar shades that cut down glare (top) and full blackout shades (above) descend from a hidden perch. The owner can also change the color of LEO strip lighting above the crown molding.

INTEGRATED HOME: \$50,001+ **GOLD**

Even the bath-rooms are equipped with visual inspiration. A Seura mirror TV is visible from the bath (right), and an EarthLCD in another bath has its power and A/V cables routed through special wiring hinges on the hinge side of the door.



"In a normal world, it would be the last thing we would do, but the architect and homeowner wanted it this way," says Montgomery. EDG had to go through a rear wall to service one TV. The TVs are ventilated into cavities in the walls above the units.

Installation of the TVs had to take place before the Sheetrock went up. EDG had to make sure the wiring and all the connections were perfect as well, because servicing would require making holes or disassembling a wall.

To service the three side-by-side plasmas in the living room, EDG must take down the frame surrounding the displays and pull the fabric off the walls. The fabric also conceals three B&W front speakers and two Sunfire subwoofers. Four invisible Sound Advance speakers hide behind a thin layer of plaster in the ceiling to provide the surround channels.

A 32-inch Panasonic display in a sitting room is hidden behind a piece of artwork. A press of a button on a Crestron remote instructs an Electro-Kinetics lift to move the painting off the screen. Another Panasonic unit rises from a cabinet at the foot of a bed and swivels 180 degrees so that it can be viewed from a sitting area. In a bath is a Seura display that is visible from behind a mirror.



Some of TVs in this decked-out condo require motorized lifts. An Electro-Kinetics lift raises the artwork in a sitting room to reveal a 32-inch Panasonic TV, while a 42-inch Panasonic plasma rises from the cabinet at the foot of the bed and can swivel 180 degrees.



CONTROL FLEXIBILITY

The homeowner even wanted some of the controls for the apartment-wide Crestron control system to be interchangeable with those of the Lutron lighting control system. This was for simplicity's sake, actually. For example, on her way out, the housekeeper can press a button on a Lutron keypad in the foyer, and the lights go off and all RF (radio frequency) devices are disabled. This safeguards against interference from other Crestron systems in the same building, as Crestron only has a finite number of RFIDs, says Montgomery. To activate the TVs, the homeowners just hold down a button on a touchpanel.

The Crestron system operates nine video zones and 16 audio zones, as well as the Lutron lighting control system. And don't look for a lot of presets. The techy homeowner likes to fiddle with the LED lighting in living and dining rooms, changing its colors on a whim.

Neither does he have presets for the solar and blackout Lutron Sivoia motorized shades on every window in the apartment. He likes to operate those however he wants.

The Crestron controllers also operate the HVAC (heating, ventilation and air conditioning) system—all through temperature sensors placed unobtrusively in the walls and with a centralized thermostat.

Setting up control of several different TVs and home subsystems wasn't the challenge for EDG. It was providing the kind of complex control flexibility the man of the house wanted, and a simple way for the lady of the house to use the system as well.

The result? As we said, the pictures speak for themselves.

EH

But perhaps the most innovative installation of a display was that of a 12-inch EarthLCD, which was mounted on the door of a bathroom off the owner's office. The monitor receives power and audio and video signals from cables that were routed through two connection points on the hinge side of the door. A channel within the door protects the cabling from being pinched when the door closes. "It's a marvel of wire management and strain relief," says Montgomery. The power line runs through one of the two wiring hinges and the audio/video through the other.