



Back to the Future

THANKS TO THE ADVANCE OF NEW TECHNOLOGY YESTERDAY'S DREAMS HAVE BECOME TODAY'S REALITY AS SOME STUNNING NEW YORK HOMES PROVE. BY **JEFF MAPUA**



Engineered Environments'
Dive-In theater is a poolside HD
movie experience



The electronics installed by La Scala were elegant and non-intrusive

In the past 100 years, the planet has experienced a technology boom that puts the 18th Century Industrial Revolution in the pale. Now, people live with and rely upon state-of-the-art conveniences and support that were either unimaginable or simply unattainable fantasies just a decade ago with engineers and designers routinely creating homes chock-full of cutting edge technology. The once outrageous concepts of sci-fi dreamers such as space age security, touch or sound light activation, instantaneous wireless communication, portable telephony and paper thin displays have far removed the occupant from many of the mundane challenges that oppressed our ancestors. In fact, these days, they're routine in the best homes.

"I have seen systems installed for security conscious homeowners that 'lock down' the home in a matter of seconds, sustainable homes that provide for zero energy usage, homes with no switches, buttons or panels anywhere controlled entirely by voice and homes with theaters that rival the finest Hollywood screening rooms," says Utz Baldwin, CEO of CEDIA, a group of high concept electronics service companies that considers itself on the cusp of the next wave of home improvements.

"Years ago the majority of technology was tied to entertainment which is seen as a luxury. Today we are dealing with critical systems in the home such as security, heating/ventilation/air-conditioning (HVAC) and lighting."

CytexOne in New York has numerous clients line up to choose which particle of ingenuity and futurism can be integrated into their home for the ultimate automated system. According to CEDIA, one of their CytexOne's clients experienced the future while away from home. The client had an electrician come to the home, and they provided him with a temporary code to unlock the door from the keyless entry and turn off the alarm. But when the electrician had trouble opening the door, the client dialed the doorbell speaker extension through the telephone system and spoke directly to him. From another part of the country, the client was able to remotely disarm the alarm and unlock the door.

Maui

A client in Maui wanted the ability to relax by the pool while enjoying a projected HD movie complete with surround sound in four distinct zones. Engineered Environments in Alameda, California created what they call a "Dive-In Theater," or a home theater by the pool. There

were numerous obstacles to navigate including weather, creating surround sound in multiple zones and maintaining video quality.

Engineered Environments found a projector that was able to handle the brightness and lens options for outdoor projection, a large screen size and throw distance with Digital Projections Mercury 500HD DLP. For the audio, they created a system of loudspeakers and subwoofers in conjunction with a Lexicon MC8 processor with four Symetrix Digital Signal Processors. So if the clients were hosting a party, guests in the pool, on the roof deck, in the Cabana or lounging poolside would all enjoy the same surround sound experience.

A 4-foot deep concrete bunker houses the screen to protect it from moisture and pests. The screen rises out of a teak bench and looms large over the pool with the help of a custom, 20-foot screen lift mechanism made out of corrosion-resistant aluminum tubing. However, the wind has been known to do severe damage to structures, and a screen acting as a sail wouldn't fare so well. To overcome this, Engineered Environments installed a weather station that detects wind velocity and retracts the screen in severe circumstances.



CytexOne's Tribeca project allowed the homeowner to let in the electrician while working across the country

Ridgewood, NJ

Electronics Design Group in Piscataway, New Jersey expanded the scope of a Ridgewood, New Jersey client project on the fly. In the end, eight sub-systems were installed or tied into a single home service and entertainment system. This included multi-room audio and video, a dedicated home theater, lighting, shades, 28 security cameras, HVAC with 27-zone radiant/forced-air heat and fresh air exchange and seven-zone driveway snow-melt system.

For audio, the home is divided into 30 zones including indoor and outdoor areas that can access a wide variety of sources such as radio, iPods and much more. Watching video is covered with ten different zones with access to centralized video sources. The 12-seat home theater is equipped with automated shades to keep out sunlight and visually screen off shelves to enhance the movie-going experience.

In creating a way to control all the sub-systems in one location, EDG created an easily navigated interface from scratch to operate all the electronics. Using strategically placed touch screen controllers (22 five-inch in-wall or freestanding touchpanels, three free standing 17-inch touchpanels, six remotes and more), a family member can select a sub-system to control. A floor plan pops up with the appropriate controls and the client selects a room or zone he wishes to control. In addition, the floor plans include camera icons for quick access to security camera views.

Purchase, NY

Innerspace Electronics, based in Port Chester, New York, received a common request from a client: install a well-functioning system to enhance their lifestyle. The result was an astoundingly simple and customized system that the client's family could use. Through one system, they could control the security, security cameras, lighting integration, HVAC, audio and video throughout the home. There were 24 zones of audio and video, 16 zones of climate control and a lighting system all controlled from one location. In addition, a security system—32 cameras with 128 zones—was integrated into the system, as was full control of the pool system.

Innerspace, combined with the efforts of an interior designer, architect and special acoustical consulting, utilized special acoustical work and multiple forms of treatment to prevent sound from escaping the theater and polluting the rest of the home. And for the computer-savvy, Innerspace included E-control from any computer in the house or from remote location via a virtual private network.

West Village

Even inspace-starved Manhattan, contractors creatively integrate incredible technology into



The home's systems are managed by one system via strategically placed touch panels courtesy of Electronic Design Group in New Jersey

homes. Ultimate Sound & Installations in Long Island City did just that with an apartment in the West Village. Convenient yet inescapably gauche, the swing-arm bracket for a 55-inch plasma television had to be tastefully installed in the master bedroom. The company installed a recessed enclosure to accommodate the bracket and large television. Now, guests probably won't notice that the technology is flush with the wall.

The technicians installed 100 inches worth of speakers horizontally in the living room. A custom sound baffle was built on site and holds the two speakers in a deconstructed-then-rebuilt wall. And in the kitchen, there's a 17-inch touchpanel in the Corian backsplash.

The West Village apartment was able to hold eight zones, with two subzones, of audio, video distributed to two plasma TVs and two touchpanels and two versatile thermostats. The clients have total control of 39 motorized shades and an extensive system of lights.

Vancouver, BC

In British Columbia, La Scala's repeat clients came to them with a project for their dream home

that included a theater, media room and whole-house control and automation, yet kept aesthetics as a high priority. La Scala designed the systems in a way so that no controls or technology were on any wall. They created a floor-plan view on the touchpanels that fed information to the clients, such as determining where lights and A/V systems have been left on. The touchpanels also control the electronic shades to such a degree they can determine the exact position of the fabric over the windows. And for ease of use, they included a "goodbye" and "goodnight" button. The integration included both electric light and daylight control, motorized gates, garage doors, fountains, security cameras and HVAC.

Every electronic feature of the home is controlled by one system including the projection theater and media room, both with HDMI 1080p distributed video. The home has nine HD flat panel displays throughout the house that can play six different sources, and 12 sources of audio for 21 audio zones. For their recreation room, La Scala installed four displays and six zones of audio that can function in unison, discretely or in any combination. This means that the speakers and

televisions can be grouped to control and play the same source or each area can be separated for independent viewing and volume. For an added bonus, the client's red piano, signed by Elton John, has a dedicated microphone and can be distributed throughout the home.

Baldwin has a suggestion when making the jump into the 21st century. "The first step is to hire a qualified electronic systems contractor (ESC) as early as possible. Getting a professional onboard early will minimize the potential for oversight, causing the technology or systems to appear as an afterthought and not deliver the performance expected." He continues, "Electronic systems contractors remove the complexity that technology inherently has today. Think about a typical stereo receiver. The receiver has 75 buttons on the front, and miraculously the manufacture fits 150 on the remote control. But how many of those buttons do you use in any given day?" CEDIA provides a database of members on their website (www.cedia.org) that is searchable by zip code. Each member must apply for certification by CEDIA as a qualified electronic systems professional. ■