

Home automation: what's on the



Home automation seems to be grouped into five tiers:

1. Top-end: total integration
2. High-tier: full control
3. Mid-tier: modular control
4. Peripheral: non-control systems expanding into control
5. Basic: simple standalone control

Top-end

Fully integrated sophisticated systems with touch screens run by custom-designed software using high-level interfaces to integrate and control numerous functions in homes. Crestron and AMX play in this stratosphere.

These systems require highly-skilled installers with electrical, data, AV, control systems and programming expertise. The programming alone can account for over half the installation cost. Generally only specialist integrators tackle these projects. Crestron sales manager Jason Lewis states: "Electricians call us wanting to install our systems, but when they find out the skills and training required, they're happier for us to put them in touch with our integrators. In a typical installation, only half is electrical. The other half is distributed audio and video, home theatre, security and computer networking."

Crestron is modular, starting with \$3000 single room controllers to integrate AV equipment. "It also ensures signals go to the right places," adds Lewis. "You don't want to be watching TV and have someone in another room switch on a radio and have something else come over it. Crestron integration, even on this small scale, ensures signals aren't mismatched, which happens with piecemeal controls." How big can they get? "A Crestron system for the biggest home in the country would cost about \$200,000," qualifies Lewis.

High-tier

Integrated systems, centring on lighting control, and managing other services including heating, energy management, security, irrigation and motorised home theatre functions. Energy efficiency is promoted as a key benefit. Clipsal, Dyalite and HPM are leaders in this tier.

These systems require electrical, data, control systems and programming skills, so training is essential for any contractor installing them. HPM product manager Eduadro Yudowski states: "We run a structured training course for contractors on iControl, covering cabling, installation, and programming." In-house training courses are run by all major manufacturers to ensure installers are competent to install and commission their systems.

Clipsal C-Bus product manager, Ron Ghezzi states: "We run a half-day introductory C-Bus course, which leads to a two-and-a-half-day course covering wiring and programming. Beyond that is an advanced C-Bus course that deals with touch screens and other advanced devices."

Third-party automation and home wiring courses and certification are also run by NECA (www.neca.asn.au), Copper Development Centre (www.smartwiredhouse.com.au) and TAFE colleges (www.tafensw.edu.au).

To make automation more accessible to homeowners, the latest systems are modular. Clipsal's media manager Alex Beltrame explains: "Wireless C-bus is cost effective for modular

market?



add-ons to existing systems or for standalone applications like home theatres where people don't want to automate their entire home." HPM's Yudowski adds: "iControl is scalable from a \$3000 standalone lighting control system up to \$50,000+ systems integrated with AMX and Crestron through high-level GUI interfaces."

Mid-tier

A new segment of modular lighting control systems that can be deployed on a room-by-room basis that require no programming or extra wiring.

PDL's LexCom wireless lighting control is a family of 'smart' light switches with onboard microprocessors and RF antennas, enabling them to link with other LexCom switches to perform functions like scene setting and dynamic grouping. Intelligence is built into the switch, so no programming is necessary. While pitched at new homes, they can be introduced to existing homes simply by replacing the existing switches. LexCom can be deployed for a few hundred dollars per switch. PDL's product manager Chris Murray outlines PDL's anticipated market reaction: "We want consumers to ask how much and then respond 'Is that all?' when they find out."

Peripheral

Manufacturers of AV systems, like Calypso, are moving into automation, driven by demand from users for more functionality. Like the mid-tier products, many are avoiding on-site programming to enable less-complex, lower-cost deployment.

Calypso controllers have hundreds of command strings embedded into them and the installer simply selects what they need controlled. "Taking the complexity out of installations makes it accessible to wider markets who couldn't justify the cost of total automation," states Warwick Maver, product manager at IDT. "Calypso is positioned at the mid-range market where electricians can easily install it and the average homeowner can afford it. There's no programming, so it's quick and easy to install."

Maver suggests \$5000 buys enough control to run the average

home, adding: "Most of the work is wiring, so it's suitable for electricians. We're getting Calypso into contractors' hands instead of just integrators, who are more geared up for big systems."

Maver notes the importance of electrical contractors in the uptake of automation: "Electricians are relied on for guidance and exert the most influence on homeowners. Someone needs to take ownership of the home automation concept and formulate the complete suite of solutions and options to take to consumers. In AV, it's the large integrators, but they're more oriented to the high-dollar homes. In the US, retailers like Circuit City are taking the lead with integration services. To me, though, the logical leaders are electricians who have access to the market and are experts in cabling already. They just need to take up the opportunity."

Basic

The original automation products: timers, motion and photoelectric sensors. Changes in building regulations for better energy efficiency require these products to be utilised in homes, so their applicability and market potential is still high.

Several manufacturers are expanding their product range to cater for the full spectrum of automation. For example, PDL is launching a range of miniature 240 VAC sensors, PIRs, push-buttons and timers that are the same size as switch mechanisms, to enhance their LexCom range. These will increasingly become part of automation systems rather than being used piecemeal for basic functions.