



OCULAR SYSTEMS

* WHAT IS YOUR VISUAL PERCEPTION *

STARDRAW  2007
ultimate control CONTROL

Stardraw.com
 eye-opening software solutions

Ocular Systems takes Control of The Drive

Ocular Systems Ltd. is a young audio, video, lighting and security (A.V.L.S) company specializing in the residential market. Having been commissioned to design and install a fully automated, state-of-the-art AVLS system in a new-build home in Uxbridge, Middlesex, they turned to Stardraw Control for an integrated control solution. The project required full integration and control of a highly sophisticated, fifteen-zone, audio-visual, lighting and security system.

The brief for The Drive was, quite simply, to design a user-friendly automated home. However, there were certain criteria demanded by the customer that made it both a challenging and interesting project. For example, the owner specified that he didn't want to see ANY equipment (with the exception of essential items like screens and speakers). However, he wanted to be able to watch a DVD (specifically, be able to insert a DVD) in any zone in the house, which creates an interesting conundrum when you're not actually allowed to have a DVD player in the room. He also insisted on using products available from high street stores where possible, rather than specialist high end equipment.

"There is no doubt that this is a large and complex installation," noted Ocular

Systems' Raj Dattani. "The project contains fifteen separate zones spread over four floors and deploys a total of ten plasma screens, forty-eight loudspeakers, six subwoofers and an HD video projector with 112" projector screen, and that's just the AV part! There is also security and lighting to be considered. However, as with any installation, it's only as good as the system controlling it, particularly in this instance where manual system control is not an option as all of the equipment is hidden in a central server/media room."

The company prides itself on the fact that it designs all of its systems to work on open platforms with full integration in multi-protocol environments. Third party hardware is used with full software

integration wherever possible and Dattani noted, "Stardraw Control offered us all the control options we required, with the possibility to add to the system as and when we liked."

The main living areas of the house are the basement and ground floor. The basement houses the cinema area containing a fifty inch plasma screen with a 5.1 audio setup,

"There is no doubt that this is a large and complex installation"

which connects to the neighbouring open plan kitchen. The kitchen has a stereo audio setup which can take a feed from the cinema area or operate independently.



a large room designated as a lounge are with a fifty inch plasma screen and a 5.1 audio setup. The en-suite bathroom encompasses a 2.0 audio setup.

“As you can see, there is audio in every room in the house, and video in almost every room,” stated Dattani. “Stardraw Control controls the lot. There are five tablet PCs from which you can control any part of any zone. Furthermore, we have created user settings for each individual user so that their control pages are set up to their own taste and liking: for example, the owner’s mother (who is in full-time residence at the property) prefers the simple option with the least amount of settings, while the owner himself has a much more complex setup with every available option. There are two other ‘guest’ user settings for friends and visitors.”

“Within Stardraw, you can turn on any of the plasmas, LCDs or the projector and control the volume in any zone from any one of the five tablet PC’s controlling the ten Denon amplifiers,” continued Dattani. You can pull down the electric projector screen and control the projector lift. You can also control all of the motorised plasma brackets and the fourteen Kef motorised speakers. It controls the PTZ CCTV cameras, multi-zone Sky Boxes with full feedback, and can also correct Sky lock-up box errors via a relay reset switch. Stardraw also manages seven Windows Media servers via the MCE GUI.”

While researching this project, Ocular Systems looked at a number of control solutions. “We wanted something we could standardize on, but nothing really grabbed my attention until I came upon Stardraw Control at a CEDIA exhibition,” explained Dattani. “I was struck by two things: firstly, the fact that it is based on open architecture means you really can control any hardware you want it to! This truly gives integrators the possibility to “think outside the box” when designing systems and offer maximum flexibility to the customer. The second thing is that it is genuinely simple to use and implement, but it still remains an enormously powerful bit of software. The possibilities are endless. The icing on the cake for me was the interaction I had – and still have – with the company. No-one else provided me with

At the back of the cinema room, there is a dance floor with two 2.1 setups running, which can also slave from the cinema area. All three basement zones are open plan to each other and can become one large combined zone. The cinema contains a three meter screen with a Sanyo projector housed in a projector lift from Future Automation. The basement opens out on to the garden, pool, indoor/outdoor Bar, and BBQ area where there is a 4.0 audio setup also slaving from the cinema area. A final touch is the Jacuzzi area which has one forty-two inch plasma and a 4.0 audio setup acting as an independent zone.

The family room on the ground floor holds two fifty inch plasma screens, one on each side, enabling one screen to be seen from the study situated across the hall. For this reason, Ocular Systems installed a stereo audio setup in the study and fed the audio from the family room across to the study running on an independent amplifier. The family room has a 7.1 audio setup which can also run in 5.1 with stereo modes as there are two plasmas in that area. The kitchen features a fifty inch plasma with a 4.0 audio setup. There is also a separate dining room with a stereo audio setup and a Squeezebox digital music player to select audio tracks from the kitchen server.

Moving upstairs, there are four bedrooms and a gym room on the first floor. The two master bedrooms each contain a fifty inch plasma screen with a stereo audio setup in the room and a further stereo system in the en-suite bathroom. The gym has a forty-two inch plasma screen with a stereo audio setup, while the remaining two bedrooms both contain thirty-two inch Sharp LCD screens built into the front of the beds with a screen lift which allow the screens to be hidden away. On the second floor, there is



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*Photographs courtesy of
The Photography Practice
www.photographypractice.co.uk*



the level of personal support that I have had from Stardraw, and it made me feel very secure in adopting their system. The Stardraw team has been fantastic: they made the process of understanding Stardraw painless, and within three days of our initial meeting I was up and running, using Stardraw Control to control just about any bit of remotely-controllable piece of hardware I could lay my hands on! Whenever I needed help or advice, Stardraw always offered their time."

"The Drive" is the first project for which Dattani has used Stardraw Control 'in anger' and he is delighted with the results. "It's been a huge success so far, and has clearly proved that it is a control system beyond reproach, but we're not finished yet!" says Dattani with a grin. "Over the coming months Ocular Systems is planning to upgrade the system to include lighting, blind and heating control for the entire house all running under Stardraw Control. We are also planning to further integrate the CCTV system so that the video feeds can be seen and managed within the control environment. I don't know of any other control solution that would be able to achieve all of this so simply without locking the customer into a particular hardware solution. The result is flexible, elegant and cost-effective and much appreciated by the customer and integrator alike."



Equipment List

Audio

- 5x Denon AVR-2307 7.1 Amplifier
- 5x Denon PMA-700AE 2.0 Amplifier
- 34x Kef Ci 200.3QR Ceiling Speaker
- 14x Kef Ci 200.3QT Ceiling Speaker
- 6x Kef PSW3500 Subwoofer
- 12x MUXLAB 500028 Stereo Hi-Fi Balun RJ45

Video

- 8x Panasonic TH 50PH10BS 50" Plasma Screen inc. HDMI and RGB Slot Cards
- 2x Panasonic TH 42PH10BS 42" Plasma Screen inc. HDMI and RGB Slot Cards
- 1x Sanyo PLV-80 3000 Lumens 3LCD Widescreen Projector
- 1x Future Automation Projector Lift
- 1x Stewart Firehawk 112" Motorized Projection Screen
- 11x Gefen Extreme CAT5 HDMI Extender
- 5x Sky HD Box
- 1x Kramer VP-15 1:15 RGBHV Distribution Amplifier
- 11x Extron Twisted Pair Sender

CCTV / Security

- 1x Ocular Systems Custom Server inc. GeoVision CCTV GV-1480 Combo Card
- 1x MUXLAB VideoEase Passive CCTV Hub
- 11x MUXLAB VideoEase CCTV Pass-Thru Balun
- 4x Hi-Speed Excel PTZ 680 Camera
- 7x HUVIRON Sunkwang SK-D106 PTZ Dome Camera
- 5x Kramer 105VB 1:5 Composite Video Distribution Amplifier

Lighting

- 30x C BUS Dimmers L5508D1A and L5508D1AP
- 20x C BUS Relays L5504RVF and L5504RVF20
- 1x C BUS PAC
- 20x PIR Sensors 5753PEIRL
- 6x Stair wash light beam breaking sensors
- 22x C BUS Saturn 5 Gang key input DLT digital display light switch
- 50x C BUS Saturn Standard six, four and two gang light switch

Network

- 1x Cisco SB107 ADSL Router
- 3x HP Pro-Curve 1800-24G 10/100/1000 Switch
- 1x 28U Ocular Systems Patch Panel with Neutrik 32 way Patch Panel
- 10x ICRON Ranger 140 CAT5 USB2 Extender
- 1x D-Link WiFi Access Point
- 4x RF LINX 2400LT-DT WiFi Amplifier

Servers

- 7x Ocular Systems Custom Server running Windows MCE 2005 SP3

Racks & Patching

- 2x Orion FS1 47U Rack
- 10x Orion Amplifier Tray
- 9x Canford RJ45 Rackmount Patch Panel
- 2x Neutrik 32 Way Rackmount Speaker Patch Panel
- 10x Black Box CAT5 Wallmount Patch Panel
- 4x Black Box CAT6 Wallmount Patch Panel

Control

- Stardraw Control 2007 software: custom UIs controlling RS232, IR, sensor I/O and bi-directional communication
- 16x Global Caché GC-100-06 Network Gateway
- 4x Global Caché GC-100-18R Network Gateway
- 5x Tabletkiosk eo7110 UMPC running Windows XP Pro SP3
- Voice activation lighting from Simply Automate (C BUS Plugin)
- Web CCTV access via GeoVision.
- Custom relay control systems from Quasar Electronics for Projector Lift, Plasma Arms and DTMF Control.

System User Interface



Basement



Basement MCE

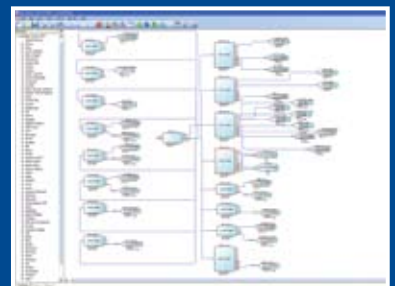


Basement SKY



Kitchen

Developer Interface



Installer Contact Details



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Ocular Systems Ltd

www.ocularsystems.com
sales@ocularsystems.com
Tel: 0845 299 7077



WINNER OF THE
PLASA
AWARDS FOR INNOVATION



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Stardraw.com
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280 Madison Avenue, #912 9th Floor, New York, NY 10016, USA
Tel: +1 212 386 5644 Fax: +1 888 317 7812

The 401 Centre, 302 Regent Street, London W1B 3HH, England
Tel: +44 (0)20 7692 7117 Fax: +44 (0)20 7692 7118

www.stardraw.com info@stardraw.com