

This Hertfordshire home looks FAB!



A fully integrated home entertainment system, a home cinema room, lighting control, multi-room audio, video distribution to 16 zones and a home network for voice and data distribution – these are just some of the goodies installed by FAB Audio Visual in this impressive Hertfordshire install.



There are multiple, high-definition 1080p displays around the dwelling, all with their own surround-sound systems.



There's no doubt about it, this is a house with style, elegance and an impressive array of the very latest in home automation systems.

The fact is - it's highly appropriate that this 'FAB' installation should have been handled by FAB Audio Visual of Hertfordshire, a company which specialises in bespoke high-end reference cinema rooms.

CEDIA-certified electronic systems professionals, FAB recently completed the CEDIA advanced home cinema design course and exam.

Working in conjunction with its preferred supplier, Genesis Technologies UK, the FAB team has provided one discerning homeowner with the latest in audiovisual gadgetry.

How did FAB get its name? That's simple. FAB stands for Full Acknowledgement of Broadcast (its use was popularised in Gerry Anderson's TV series Thunderbirds) and is also short for 'fabulous' – something that the company says it

customers often say on project completion.

FAB was commissioned by the property owner to provide a fully-integrated home entertainment system in his Hertfordshire home. Phase one included multi-room audio and video distribution to sixteen zones and a home network for voice and data distribution. It also included a dedicated home cinema room and lighting control to the main entertaining areas. The plans for phase two included a pool, gym and a summerhouse with similar specifications.

Cinema considerations

During the initial consultation, the client advised that he was an avid film collector and enjoyed watching a wide variety of movies including Japanese films with subtitles.

A 16.9 screen was originally specified, but as soon as the anamorphic lens kit was made available, from Genesis Technologies, it was decided to install a fixed 2.35:1 screen, as most



A place to relax in front of the TV: the whole house system is controlled using a Crestron processor via handheld touchscreens with custom software written by FAB.

concealed within the unit.

The 'Orangery' is used for formal dining so the client required the screen to be hidden away when not in use. When dinner is finished, the family and guests can relax on the large leather sofa and - at the touch of a button - the surround-sound kicks into life and the plasma screen rises up out of the dresser on a plasma lift.

Control is key

The whole house system is controlled using a Crestron processor via handheld touchscreens with custom software written by FAB to match the client's wishes and needs of a simplified and easy-to-use system.

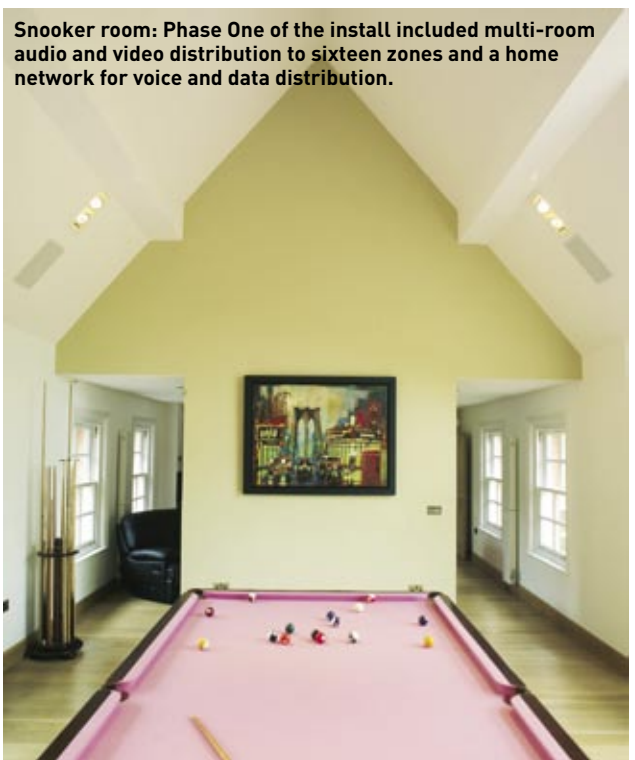
FAB always carries out a full useability study before starting on projects like this and the final solution involved 14 touchscreens controlling the house. Occupants can quickly access the local DVD players, a Kaliedescape music and movie database, a suite of Sky HD boxes and multiple DAB tuners in the main equipment rack.

FAB catered for the client's extensive IT system with an enterprise-grade firewall, redundant broadband backup and fully-managed Gigabit data switches. This will be further extended with fibre links to the summer house when phase two commences.

There is a second data switch in the main rack, this being a power over Ethernet unit for the dedicated wireless network, used for communicating with the touchscreen remotes. The whole house has also been ducted for a future fibre network.

On the security side, FAB has taken a feed from the security DVR and fed the signal as a matrix source which can be viewed on any of the property's screens.

The proposed cinema room was a newly-built shell when FAB arrived on the site. However, the proportions of the room were not ideal for good acoustics - the room was long and thin and there were cupboards built into the walls



Snooker room: Phase One of the install included multi-room audio and video distribution to sixteen zones and a home network for voice and data distribution.

in awkward places.

All this was duly taken into account when the room was designed in close collaboration with FAB's supplier, Genesis Technologies.

Genesis turns it on

FAB was keen to access Genesis's abilities in pre-sales system design, in-depth training and onsite support underlining the company's

At the touch of a button - the surround-sound kicks into life and a plasma screen rises up out of the dresser on a plasma lift.



aim to uncap residential integrators' potential when designing, selling and installing bespoke systems.

As an example, the video and audio calculations for the Hertfordshire cinema room design (screen size and position, seating row distances, step heights, projector output, speaker location and amplifier outputs) have all been calculated using the official SMPTE and ITU-R BS.775-2 (2006) standards with reference to the CEDIA Advanced Home Cinema Design Document.

FAB had a dense block wall constructed at the front of the room. This served many purposes. One was to shorten the room, thus correcting some room mode issues and the wall also provided a place to flush-fit Genelec front speakers and subwoofers supplied by Genesis.

The wall also supports the 120-inch wide, acoustically-transparent projection screen which has been trimmed in black acoustic fabric to increase perceived picture contrast and cut down any reflected light.

The floor was stepped for three rows of seats and the steps were designed as a bass trap having holes cut in the risers and filled with acoustic fibreglass.

There are LED marker lights in the tread capping so anyone using the room can see the steps if they need to move around during a film.

The side and back walls have been trimmed



The Cinema equipment is housed in a 40U Middle Atlantic rack in an air-conditioned cupboard.



Showpiece of the install was the state of the art dedicated home cinema



The home cinema features a high definition 1080p IDLA projector with Genesis Technologies anamorphic lens adaptor kit.

in an acoustically-transparent Platypus grey velour material with acoustic wall treatments behind. FAB opted for a multiplesurroundspeaker array, six in all, one pair per row of seating. The cinema is configured for 5.2 surround sound.

Due to the position of the two windows, the rear surround speakers could not be correctly located on the back wall. Ceiling speakers, however, were not an option.

Looking at the hardware

The audio portion of the cinema is taken care of by a dedicated home cinema audio processor, an Audyssey Pro Sound Equalizer and the active Genelec speaker amplifiers, which have been rack-mounted in this case for optimum cooling.

The video processing is carried out by a DVDO iScan50Pro which also handles all the video source switching and outputs to a high definition 1080p IDLA projector with Genesis Technologies anamorphic lens adaptor kit. The Cinema sources are at present a dedicated Sky HD box, a Kaleidescape 1080p movie player, a Kaleidescape server and a DVD player. A Blu-ray player will replace the DVD player when Profile 2 machines become available.

The control of all this cutting edge equipment is in the hands of a second Crestron processor and a TPMC 8 touchpanel. Using this panel the client can control the whole room, from individual items like the multiple lighting circuits from the Helvar lighting control system, to the

electric blackout blinds over the rear windows. Alternatively, he can just press Play on the DVD and it all just happens.

The Cinema equipment is housed in a 40U Middle Atlantic rack in an air-conditioned cupboard. The cupboards, including the client's 1,500+ DVD collection, are all seamlessly integrated into the decor of the room behind their velour trim.

The room has been fully ISF-calibrated for the optimum viewing experience using a Data Colour calibration kit for setting up the video display and source devices. The Audyssey Pro Equalization Installation Kit was used for adjusting the audio levels.

FAB co-director Phillip Warris told CI: "Feedback from the client and his family has been very positive. The client himself said: 'All through the job FAB has been very proactive in keeping me informed of any technology changes. The Cinema started of with a 16.9 format screen and was changed to 2.35 as soon as the anamorphic lens package became available.

'FAB also advised that a Kaleidescape video server be installed so the anamorphic lens and aspect ratio would change automatically. We are delighted with the standard of work these guys have achieved. At no point did they try to 'sell' me anything, they just advised and let me make up my own mind.'"

More information

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Technology partner

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