

AES Conference

Cambridge meeting looks to the future of music and technology

How will we be listening to music in the future? Andrew Everard was in attendance at a crystal ball-gazing conference

There was more than one kind of convergence in evidence at the 20th conference of the British section of the Audio Engineering Society. Not only were the fast-closing worlds of computers and audio the subject of the event, but extra time was added for the world of technology to come together with consumers, in the form of a public 'Education Day'. What's more, a few members of the audio press were invited along to witness and participate in the conference too, giving me the opportunity to pass on to readers the way the audio industry sees the future.

Held in the striking surroundings of New Hall, Cambridge, the conference saw a range of experts presenting papers on a number of subjects linked by a common theme, some of which sparked lively debate among attendees. As well as many familiar faces from British Audio companies – Arcam, KEF, Meridian and Naim were among those represented – the conference also attracted broadcasters and broadcast engineering staff from the UK and beyond, representatives of computer

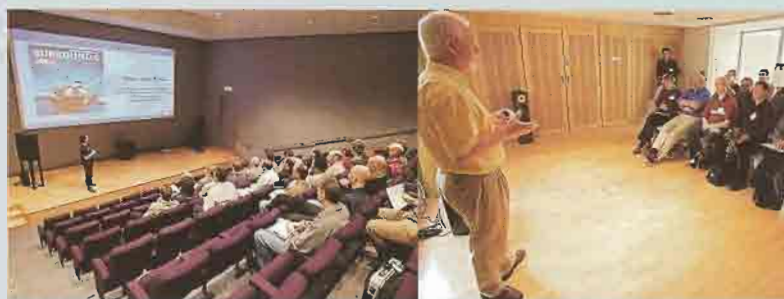
manufacturers, researchers in the audio field and industry analysts.

Meanwhile, the public day had a similarly diverse range of attractions, from the new Harman Audio Logic 7 system in a brand-new Range Rover to cinema-quality digital projection, and from a presentation on how DTS sees the digital sound and vision future to sessions on acoustics and speaker positioning. There was even a chance to hear some of the common problems in compressed music formats, and some very uncompressed music in a fascinating 'live v. recorded' music session.

Digital gateways

Opening the proceedings, David Sturge of **Pace Micro Technology** unsurprisingly laid out a vision of the set-top box, currently used for digital television from cable, satellite or terrestrial services, as the future portal into the home. His view is that audio distribution via such devices will come on the back of video services, as is already the case with digital radio, and he pointed out that 60 per cent of UK homes have now embraced digital TV – even more than in the USA.

But such digital gateways will need to be networked with existing and future audio systems. Such networks, Sturge said, need to be easy to install, configure and



Now pay attention: DTS unveils a vision of the digital future (above left), while John Dobb of B&W gives a lesson in speaker positioning (above right)

use – certainly not the case at the moment – but he wasn't sure that the much-vaunted IEEE802.11 'wi-fi' system was the answer. The 2.4GHz band on which this system operates is getting crowded, he pointed out, so alternative solutions, using the HPNA (Home Phoneline Networking Alliance) protocols over standard coaxial cable, or even connections piggybacking data on the mains wiring, would have to be considered. The latter is capable of data rates as high as 8Mbps, which is enough for streaming video, but Adrian Lloyd-Owen of home automation company **Crestron** agreed that it would be video distribution, not audio, that

would prove the driving force for such systems in the future: 'Once we crack video distribution,' he said, 'it'll be relatively trivial to crack the audio, be it high-definition or MP3.'

Back to Analogue?

Lloyd-Owen had a slightly different take on networking: it was his view that an all-digital system wasn't the answer, but rather an analogue system using simple CAT5e cabling and balanced audio working. Compared to standards such as DVI or HDMI, he said, CAT5 had the advantage of thinner cabling, making it easier to install and offering the possibility of much longer cable runs.



AES president Theresa Leonard and conference delegates (above) enjoy a quick break for tea and biscuits between sessions

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It's showtime (l-r): John Watkinson of Celtic Audio enabled audiences to compare his speakers with the 'real-world' performance of harpist Una Monaghan; Rodney Orpheus weighs up a dual future for DTS; and Bob Walker, formerly of the BBC, reveals the secrets of room design for multichannel listening

Of course, the computer companies see themselves grabbing an ever-increasing slice of the home entertainment market, with strategies such as **Microsoft's** Media Center package and **Apple's** iTunes/iPod/AirPort Express system. Tom Blank, of Microsoft's research department, said that while consumers want home networking of entertainment, 'In our world, we don't believe there's an installer involved. If consumers have problems installing and setting up such a system, then shame on us - we haven't done our job properly.' The Microsoft vision is of the eHome, an open-platform strategy allowing third-party developers to produce interfaces

for lighting and security systems as well as entertainment uses.

Blank suggested that while the ideal is the Digital Living Network Alliance system to ensure products all work together it is yet to set up its testing and certification facilities, which is why Microsoft already has its own PlaysForSure logo to guarantee compatibility. 'Our target is consumers,' he concluded, 'our target is no installers.'

So how do the traditional audio companies see themselves in this future world? John Dawson, chairman of **Arcam** and a strong supporter of both the AES and the British Federation of Audio, said that while computer companies are targeting much of the audio industry, they seem uninterested in amplification and speakers - which is good news for the industry. But he saw complexity as the major stumbling block for home networks, pointing out that research has shown that 46 per cent of all digital TV set-top box buyers needed some degree of after-sales support, and that of the 25 per cent of the total sales returned for refund or replacement, half were subsequently found to have no fault - the consumer was simply unable to get them working. And when it comes to wireless networking, 'If

you want reliability, forget it - it's a case of "plug and pray".'

Dawson acknowledged the gap between technology and the ability of retailers to explain it, and that with an ageing population it's likely to become an increasing problem. What's more, the drive towards large flat-screen TVs has moved more sales out of the specialist retail sector and into the major chains, which means generally poor 'all-in-one' audio/video systems are sold with the displays.

However, Dawson notes, the manufacturing sector isn't doing itself any favours: the latest Arcam AV receivers have 100 sockets on the rear and Denon's latest 200; and consumers are getting confused - his company's biggest growth area, he said rather chillingly, is its customer support desk.

High resolution

How is the high-resolution future shaping up? **Sony's** John Ive quoted some research which revealed that viewers notice an improved picture much more than surround sound, but that better sound improves the perception of the picture. However, he bemoaned the fact that the UK lags behind when it comes to High Definition TV: Japan has had it since 2000, the USA has over 99 per cent HDTV cover-

age, and both China and Korea are due to start transmissions this year. Nevertheless, while Sky will lead Britain into HD next year, the BBC is already making huge amounts of programming in high definition, simply because production partners such as Japan's NHK won't accept non-HD programmes any more.

Microsoft's Tom Blank returned to address some of the problems John Dawson had addressed, noting that system changes such as the move from a 5.1-channel set-up to the 7.1 channels now needed for 'extended surround' are currently 'what's lovingly called a forklift upgrade' - in other words, a wholesale change of equipment. His ideal was of a digital future with the system-clocking of all components synchronised, allowing products to be slotted in and self-configured: add some speakers to such a system and they'll 'know' what and where they are and set themselves up. Apparently the company already has such a 5.1-channel system up and running, aimed at the mass market rather than high-end audio.

Talk radio

A heated debate ensued between Southampton University's Adrian Pickering, who argued that digital



Scopein Research's Markus Erne outlines compression problems

ANDREW EVERARD/PAUL TROUGHTON FOR THE AES

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on to sugges
be abandoned as a high
medium for home use in favo
digital satellite and terres
broadcasting, an idea rejecte
Andy Baker.

Baker's contention was th
there's a lot more to the quality of
sound on digital radio than just
bit-rates: a lot of the problem
stems from the 'cascade' of differ
ent digital devices involved in the
broadcast chain, from the mini
disc machines used by reporters to
the previous use of minidisc –
store music for programmes –
now being replaced on Radio 1,
for example, with a hard-disk
playout system that gives better
quality. And, while he noted that
the BBC has now replaced its old
MPEG encoders with new units
using enhanced algorithms for
coding, he added that the
Corporation is still lobbying for
more digital capacity, in order to
deliver better quality on all its
digital radio sources.

A presentation on the state of
music on the internet was given
by John Buchanan, founder of
Magnatune, described as the only
online record label. Much of his
presentation was about how the
music industry must adapt to the
'30-second sampling' mentality
the internet has created – if your
disc doesn't sound good when
coded at 32kbps MP3 quality and
within the first 30 seconds of lis
tening, it's not going to sell – but
he also pointed out some interest
ing market statistics to show how
the music industry is changing.
For example, 64 per cent of
Amazon's business is from items
selling 20,000 units or less, and
25 per cent of iTunes' sales are
of classical music, as are 50 per
cent of Magnatune's. If you want
to see what this innovative label is
doing right, take a look at
www.magnatune.com, where the
slogan is 'We're a record label.
But we're not evil!'



New Hall, one of Cambridge University's newer colleges and a Grade II* listed building, provided the striking venue for the conference (top); the new Range Rover parked outside (above) is fitted with the Harman Audio Logic 7 system. The BBC's digital radio portfolio (below), came under attack at the conference, while Andy Baker (bottom, centre), head of technology for BBC Radio & Music, came to its defence



John
C... Audio
... to compare
... a recording in the
... using a couple of
... audio sources' –
... Monaghan and coun
... tartist Liza Marshall
... company's Legend
... al speakers.

... different kind was on
... new Range Rover,
... side the conference
... attracting a queue of
... waiting to hear the lat
... of the sound system
... these pages a couple
... ack, while DTS gave a
... tion on surround sound
... h music and film use. The
... most interesting aspect of the
... latter session, given by the
... company's Rodney Orpheus, was
... his view of the future of the
... system on both Blu-ray and
... HD-DVD next-generation video
... discs: unlike the situation with
... DVD-V, DTS is mandatory on
... both of the new formats and will
... offer full 192kHz audio resolution
... for up to eight channels, or
... anything up to 32 channels if
... required. The new DTS-HD
... version is fully lossless in its
... encoding, and back-compatible
... with existing DTS decoders. But
... which of the new high-resolution
... video systems will win the
... impending 'format war'? Says
... Orpheus: 'As far as DTS are
... concerned, we don't care – we're
... on both of them!'

Around 40 extra attendees
joined for the Education Day, and
there was plenty of informal con
versation about all matters audio
between sessions. The Audio
Engineering Society is already
saying it's pleased with the re
sponse to the new format, and is
considering more events of this
kind in the future. ☺

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