

BRAD KING SCIENCE JAN 15, 2001 2:00 AM

Coming Attraction: THX on PC

The computer's about to have a brand new sound. With Lucasfilm THX at the helm, users are going to be treated to the movie experience at their PC.
By Brad King.



MAY THE SOUNDS be with you.

OK, so that's not exactly the notion the Lucasfilm team wants to portray when they speak about their enhanced THX-certification systems that are changing the way people listen to their PCs.

Recently, the group along with Dell Computers created its first ever THX-certification standard for PCs. The new Dell 8100 and 4100 series offer users multimedia speakers, Dolby Digital surround sound and integrated audio and video systems.

The systems start at \$2,000.

After working with Dell to create a multimedia speaker system, Laurie Fincham said his team quickly realized the implications of creating a strong audio component for the home computer.

"We realized that this type of innovation was aimed at people who wanted to play DVDs or CDs on the computer," said Fincham, director of engineering at Lucasfilm. "The overall system performance, though, was a function not just of the speakers,

but of the computer configuration as a whole. So we came up with a complete PC certification system."

The Lucasfilm team set about creating a THX-certification system for computer networks that would allow high-quality audio to be played on a PC.

The new THX-certification process promises users a higher-quality viewing experience as they sit down in front of their computer. Some of the specifications seem rather pedestrian, such as the 800-MHz CPU and 128 MB of RAM required by the system.

But the certification team set out to make sure that each part of the computer would seamlessly integrate together -- which turned out to be no easy task.

"Then we looked at graphics and sound cards, speaker systems, and how the whole system would then work together," Fincham said. "Finally, we came up with THX software which we wrote that simplifies the setup procedure for the customer. But it still took a day or more for us to get digital sounds out of the system."

Eventually, the team developed software that would walk consumers through the setup process in under 20 minutes, a length Fincham said was more than acceptable.

But for those watching DVDs or gaming online, audio is but a small part of the experience. Since movies are designed for the big screen, the transfer to a small computer monitor gives them a bluish tint when watched.

The Lucasfilm team created a graphics card which compensates for that change.

"Bandwidth and uniformity levels was extremely important," Fincham said. "We just want to make sure if people crank it, they won't be disappointed."

But for gaming, there was an opportunity to create content directly for the PC. So the Lucasfilm team launched its Professional Multichannel Mixing and Monitoring program 18 months ago. The PM3 program has 30 studios mostly in the greater Los Angeles area, setting specifications for post-production work not only for movie soundtracks being transferred to DVDs, but also for gaming soundtracks.

The only studio created solely for gaming soundtracks resides in the offices of Origin Systems in Austin, Texas.

The room was originally used for the voiceover work for the likes of *Star Wars* veteran Mark Hamill who did work on the original Wing Commander game.

It has since been transformed into a 5-sided room, approximately 18 feet long and 10 feet wide.

For gamers, the sound quality is improved even without the new Dell system.

"The one thing that I've noticed is that if you have a THX system, you are going to get an exact replication of what we hear in the studio," said Mat Mitchell, manager of the audiovisual department for Origin Systems. "If you aren't fortunate to have that listening level, you still get a high-quality sound. It's going to sound as good as it possibly can."

"The way they calibrate and have the speakers in the correct position in our studio translates really well in the PC console."

The THX quality post-production room at Origin could eventually help out sound composers like those in the Hugesound network, who are using the new technologies to create more adventurous sounds on the PC.

"The new-generation console machines are finally catching up to the PC in terms of their sonic firepower," said Chance Thomas, founding member of Hugesound in an e-mail. "They've got more memory, faster processors and output configurations that have generally cooperated with the audio community's requests. That makes it more exciting -- and far less frustrating -- for audio developers like Hugesound to create music and sound for these new console machines."

By creating a post-production studio where the final works can be mixed, composers like Tim Larkin can continue to make music remotely. Stereo mixes are sent directly to Larkin's home studio where he overdubs his trumpet parts and sends the music back to Los Angeles on the Internet.

"The post-production is where this all comes together," said Mitchell. "You need high-quality sounds going in, but in the post-production you are tuning the sounds and making the sounds fit perfectly with the images.

"We're limited by our technologies. We do this in the highest possible resolutions. But if DVD becomes the standard for gaming, we'll be ready."

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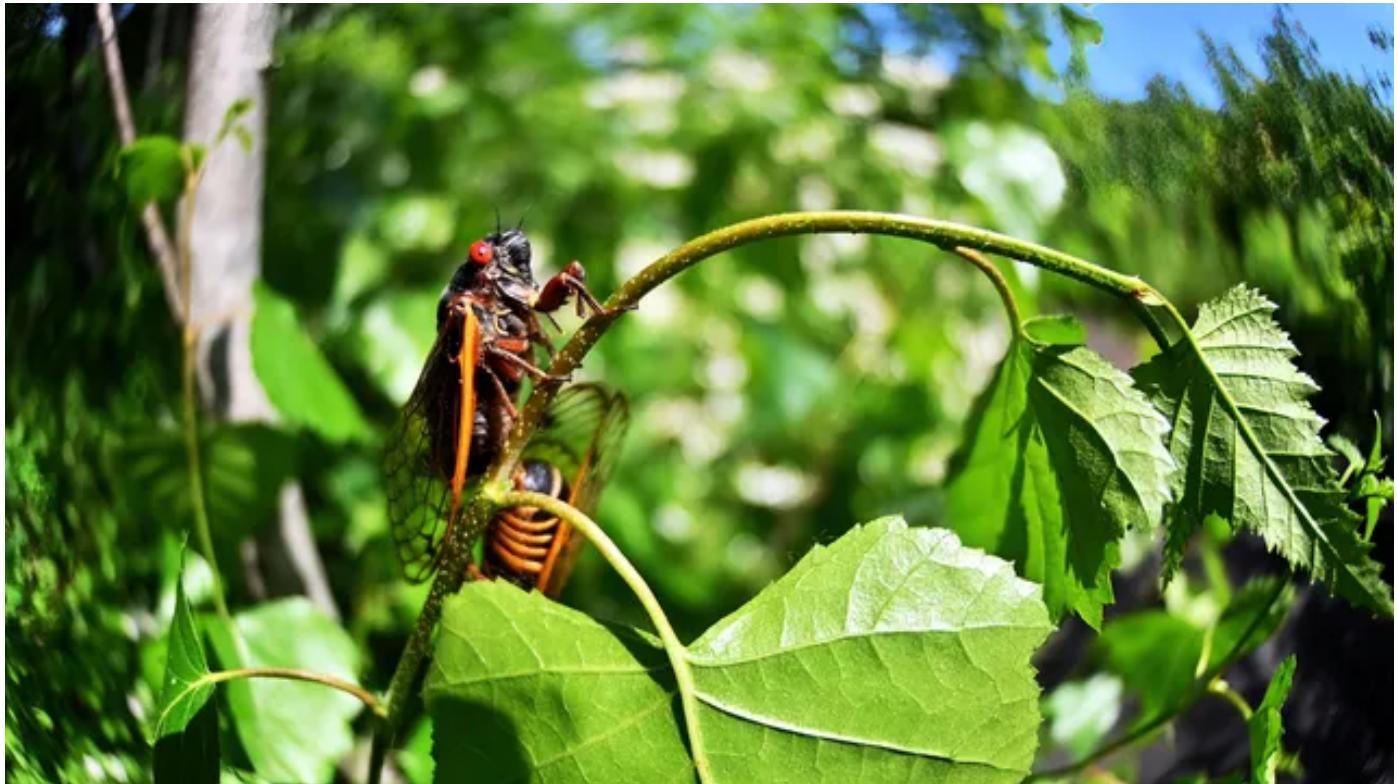
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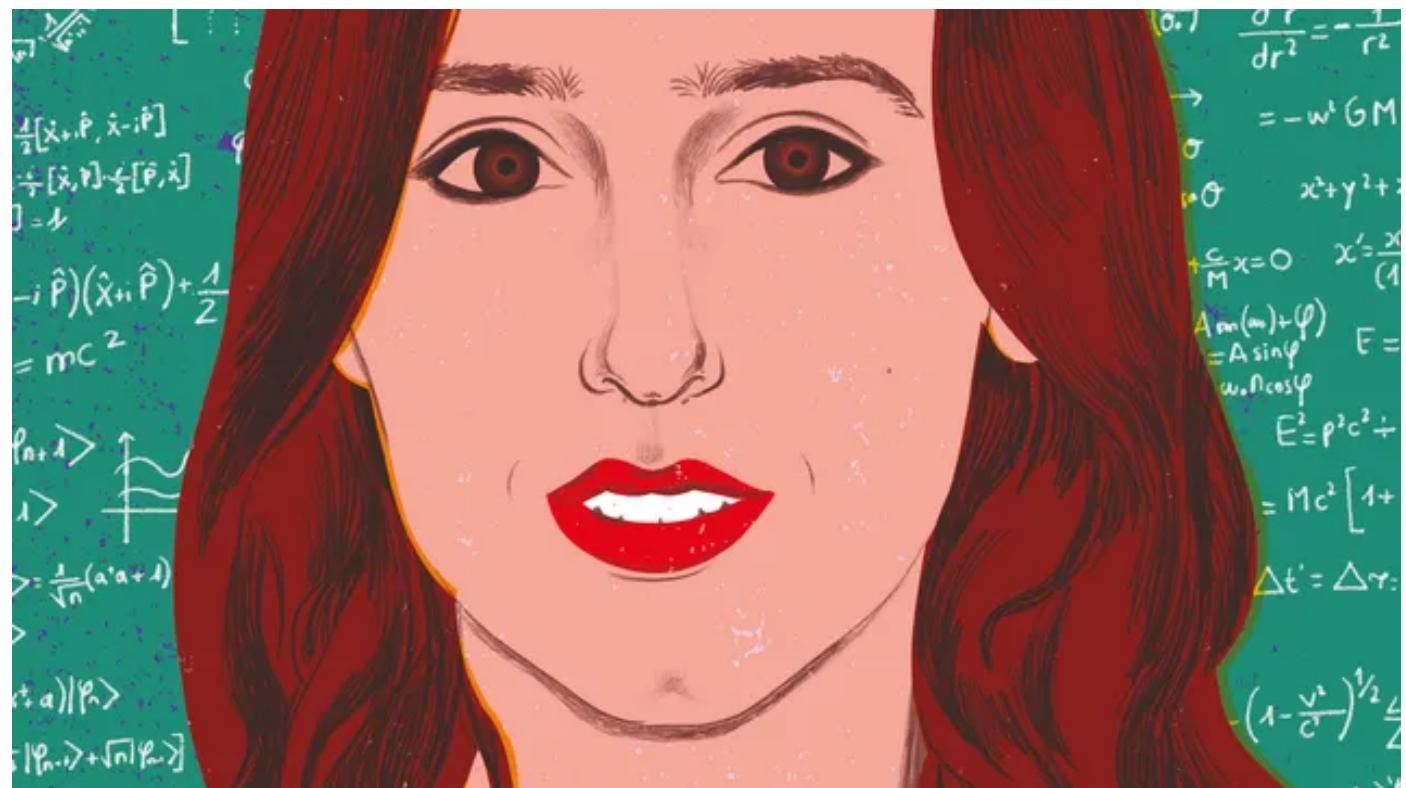
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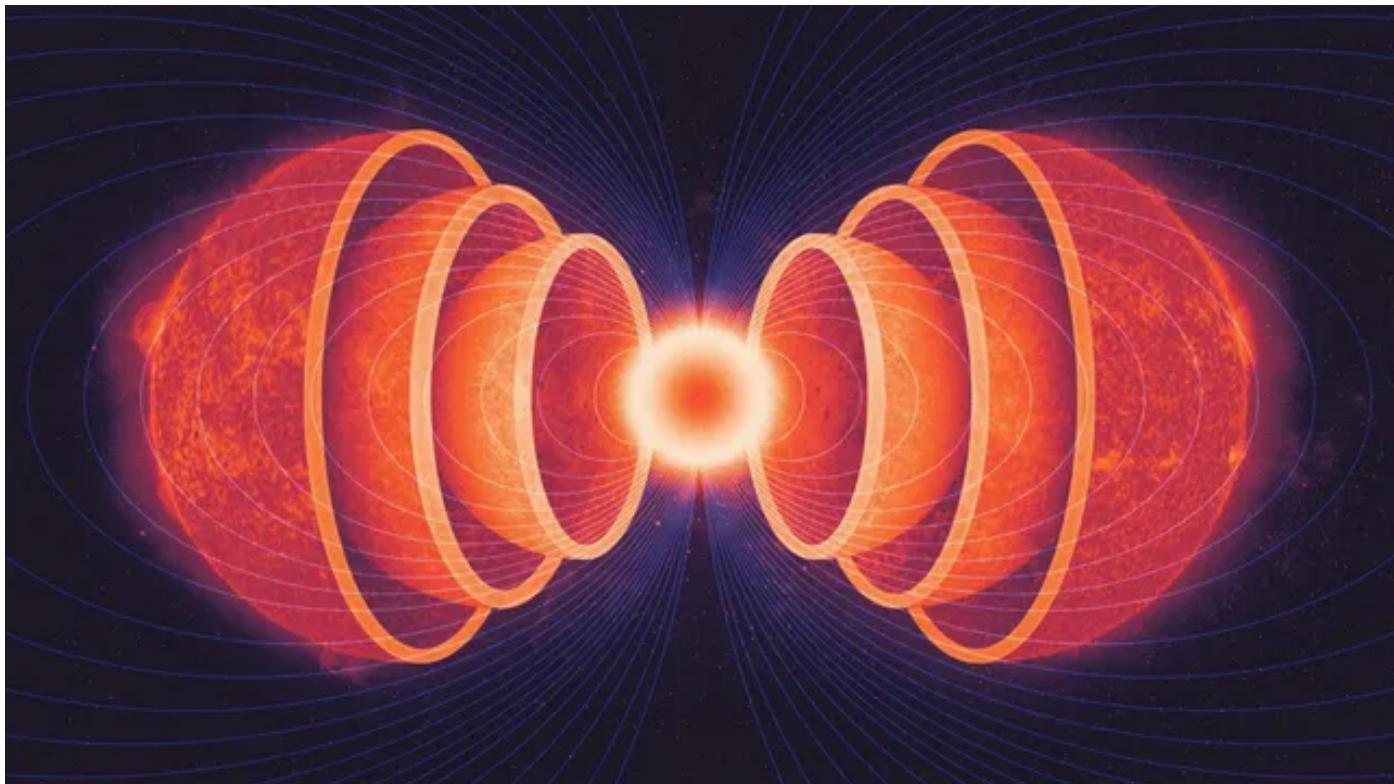
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