## FROM THE Editor The Computer-Audio Revolution

udiophiles are usually the first to latch onto new audio technologies and trends. It's the enthusiast market that is more adventurous and willing to pay a premium for better performance that paves the way for the wider commercial success of mass-market formats. We even refuse to let go of formats that failed to become mainstream—witness SACD.

But many audiophiles have been slow to adopt computer-based audio. Despite the significant advantages of a computer in accessing a music library and in sound quality, we've lagged behind the growth curve. Although audiophiles

tend to be pioneers in many respects, we're also somewhat conservative and hidebound. Moreover, we're a little older than the general population and thus less immersed in computer technology. Many of us think of computers as work and music as pleasure, and don't want to boot up a PC to hear our favorite tunes.

Computer audio has achieved juggernaut status, first in the mainstream courtesy of the iPod and iTunes, and more recently in the high end. My own recent experience confirms this

powerful revolution. A loudspeaker manufacturer visited my listening room a few weeks ago to set up a pair of speakers for review. After the speakers were roughly in place and we were about to listen to music for the first time, I showed the speaker manufacturer my disc player, opened the drawer, handed him the remote control, and invited him to play his reference discs so that he could dial-in the speakers' positions. "Discs?" he snorted. "I don't play *discs.*" He proceeded to pull out his tiny laptop computer and ask me for a USB connection to my DAC so that he could play his music from iTunes.

In another sign of the changing times, during a visit to France to tour speaker manufacturer Focal and electronics company Micromega, virtually all of the listening we did was not just sourced from computers, but streamed wirelessly. This was true at both companies' multiple listening rooms, at two private homes, and at a French retailer's showroom. At Focal, we heard a complete stereo system called Bird, comprising an amplifier, a woofer built into the amplifier chassis, and two satellite speakers; the source component was an iPad, iPhone, or similar device that streams music to Bird wirelessly at full CD resolution. (Incidentally, the \$995 Focal Bird sounded amazingly great; watch for review.)

Focal's Bird is part of a wave of new audio products that use a "nomadic" device as the source component. At this last CES a flood of products was introduced that are either controlled by portable devices, or can accept wireless streaming of content from a portable device. For now, we're limited to CD-quality audio (at maximum; many will listen to limited fidelity iTunes downloads), but we're on the verge

> of higher-resolution files from iTunes (possibly even 96kHz/24-bit) and wireless streaming of high-resolution digital audio for the quality-conscious.

> In Paris to tour Micromega, I heard wireless streaming in three different venues: France's premier high-end audio retailer, Présence Audio Conseil; the listening room in Micromega's factory; and in the home of Micromega's CEO. With Micromega's forthcoming streaming DAC, the Aria, you simply stream music from your iPhone, iPad,

or computer to the stereo system via the Aria. A variety of listeners took turns playing music without ever getting out of their seats or pulling out physical media. We passed the portable devices around to the others in our group, encouraging musical exploration and sharing. Not only was this very convenient, but the sound quality was uncompromised (the music was stored in lossless formats). The Aria was at the front end of one of a handful of the best stereos I've heard, a mega-system with a price tag approaching seven figures. Even in this demanding context, the streaming music and the Aria's DACs delivered stunningly great sound.

I heard eight different systems during my week-long visit to France, and if it hadn't been for me bringing my own reference CDs, we would never have inserted a single disc into a player in any of the eight systems.

If that's not a revolution, I don't know what is.

Robert Harley

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