

# Jam Session: Real Instruments for Real Rock Bands

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*Editor's note: John Gaudiosi, who covers the videogame industry for WRAL Local Tech Wire and writes the Gaming Guru blog for WRAL.com, is covering the Consumer Electronics Show this week. Also attending is Emily Price of the WRAL News Channel. Watch for their reports this week.*

**LAS VEGAS** - From its very inception, the developers at Harmonix have always wanted to bring the rock band experience to consumers who couldn't play a lick on a real guitar. Through Guitar Hero and now Rock Band, they've achieved that goal. Another company, eJamming, which has been designing its eJamming AUDiiO technology on a separate, but in many ways, parallel path, is using the Consumer Electronics Show to allow real musicians of any talent level the opportunity to jam together virtually and allowing fans to listen to these live sessions via PC or wireless devices.

"eJamming's genesis actually predated the public release of the original Guitar Hero, and in fact, Harmonix and eJamming were on parallel development tracks during 2001-2005," explained Alan Jay Glueckman, chairman and president of eJamming. "We both intended to create educational products to address the need for music education when school boards across America cut arts funding in the '90s, eliminating music and art from the curriculum, to the detriment of child development, because as we all know, music helps the young brain develop."

Harmonix and eJamming both started by working with MIDI. EJamming's first product, the eJamming Studio, synchronized MIDI data from musicians in multiple locations, and was introduced in the fall of 2005 at Digital Life in New York. But by the summer of 2006, it became clear to the company that while keyboard players and electronic drummers were being served by the eJamming Studio's MIDI-only product, not enough guitarists and bass players had migrated to MIDI guitars, and couldn't join in. Nor could vocalists, or any musician whose instrument wasn't MIDI enabled—the violinists, saxophone players, horn and reed players, and DJs scratching, too.

"So we attacked the challenge of creating eJamming AUDiiO – how could we shove the huge amounts of audio data through current bandwidth and compress it so it still sounded great to a musician's ears and yet arrive in time so the delay would still be acceptable to musicians for whom time is everything," said Glueckman. "We created proprietary peer-to-peer technology that allows for real-time communication amongst musicians equal to what game players of shooters in multiplayer games experience with the lowest amount of latency."

EJamming AUDiiO already has over 11,000 musicians in 150 countries around the world online in its public Beta. Although the technology was a hit at Demo 07 and at Musik-Messe in Frankfurt last year, the company has been riding under the radar. That changes with eJamming's key role in the Intel CES keynote address, which will use its technology to allow rock band Smash Mouth to jam live online from multiple locations on stage and backstage. In the next few months, the full version of the technology will be introduced to the public.

"We would love to build on the consumer acceptance of Guitar Hero and Rock Band, and be the bridge between a young gamer who picks up the Guitar Hero controller or the Rock Band drums or mic, and making music for real with musicians in other countries over the Internet in real-time," explained Glueckman.

Glueckman said the plan was always to license the company's real-time synchronization technology to game companies to level the playing field and neutralize the advantage players who are closer to the server have over players further from the server.

"Plus, our real-time audio opens all sorts of opportunities for game companies to add real-time conversation to their games with superior sound because with headphones on, eJamming AUDiiO's VoIP sounds like the people you're connected to are living right inside your head," added Glueckman.

The eJamming technology is constantly evolving. The latest Beta 11 release introduced the ability for musicians to create a Virtual Recording Studio with musicians anywhere in the world, even if they have slow broadband connections. Musicians in Shenzhen, China; Rio de Janeiro, Brazil; Austin, Texas and Berlin Germany can collaborate together over eJamming AUDiiO using the Overdub mode, and add tracks with near-zero latency in real-time with feedback from their fellow musicians, as if they were all hanging out at the same recording studio.

"We see eJamming AUDiiO evolving as a real-time teaching tool, connecting students and teachers over the Internet," said Glueckman. "And with eJamming JamCasts and other new eJamming technologies, we will be connecting musicians with their fans in new ways, delivering the compelling excitement of live performances to computers, Mobile Internet Devices (MIDs), ultra-light computers and your cell phone from anywhere in the world, any time."

Glueckman said the company is already working with other technology firms that are creating avatars and environments for virtual worlds, while eJamming provides the sound, music and dialogue that makes those worlds more real and more compelling.

The Intel CES keynote featured the work of serious games developer Virtual Heroes, which used Unreal Engine 3 to create the virtual garage that Smash Mouth performed in for the eJamming live concert. Big Stage provided photo-realistic avatars of each of the three band mates for this virtual jam session and Organic Motion utilized new motion-capture technology to bring lip synced singing and realistic dancing movement to life.

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