

Case Study

AJA OEM-HS PCI Cards used under Linux for HD Videoconferencing

12/16/2005

AJA Customer McGill Turns Heads with Life-Size HD Videoconferencing

In a groundbreaking exhibit of new advancements in video conferencing, McGill University has used AJA products to show how artists and entrepreneurs can collaborate live over large distances in high definition. The demonstration, titled "Wide Screen Window on the World: Life Size HD Videoconferencing," garnered the school a Bandwidth Challenge Award for "Most Innovative Use of New Technology" at the 2005 Supercomputing show in Seattle.

The award competition saw McGill's ultra videoconferencing research team leveraging high bandwidth and uncompressed AJA OEM-HS PCI cards under Linux to stage an extremely high quality, low-latency, video conference in HD between Seattle and Montreal. In Seattle, a panoramic 15-foot screen comprised of three 65-inch plasma displays showed three uncompressed high-definition video streams from the Instructional Media Services studio at McGill in Montreal. These streams were sent over the CA*net 4 Internet network across Canada to Vancouver and then Seattle using McGill's proprietary IP transmission software. The displays showed people at the McGill end in life-size high resolution, having normal conversations, without the usual video conference delay.

A highlight of the demonstration was a two-way synchronized interaction between McGill music instructors teaching and playing instruments together with students in the studio at McGill. Another was a model train in the studio at McGill that could be seen and heard in high definition and controlled remotely from Seattle with a round-trip latency of less than 100 milliseconds.

The Bandwidth Challenge Awards, presented by Qwest and sponsored by Force10 Networks, Spirent and Net Optics, highlight the best new techniques for creating and utilizing vast rivers of data over advanced networks. In addition to its use of AJA technology, McGill's "Wide Screen Window on the World" was completed with support from such companies as Hewlett-Packard, Neterion, Foundry Networks and CANARIE.

For more about "Wide Screen Window on the World," visit <http://ultravideo.mcgill.edu/activities.html>.

