

Around the Puget Sound, Seattle, Washington, U.S.A.

#### **Notices** Job hunting? There are several CURRENT listings on our jobs page. Last addition: 4/19/2006 **PowerPoint Presentations** The PowerPoint presentations have moved to their own page. May Meeting Notice **Coming Events** "Born Digital" Will recordings survive the **Association for Recorded Sound** 21st century? **Collections** national conference Seattle, May 2006. Click here for Asset management and details. storage issues for Engineers, **Producers, Artists and Studios** 120th AES Convention. May 20-23, May 17, 2006 Paris France. 121st AES Convention. October 6-**Details** here 9, San Francisco, California.

## April Meeting Notice Loudness vs. Intensity What's the big deal?

James JJ Johnston Audio Architect, Codecs Group - Microsoft Corporation

### Opus 4 Studios, Bothell, WA

### Tuesday, April 25, 2006 7:30PM

The PNW section's own JJ Johnston will introduce the concepts of SPL (that you are probably all well aware of) and loudness (the psychological metric that intensity is converted to in the human auditory system). In the process, he will explain why bandwidth changes in music (speech, whatever) can create dramatic changes in loudness, even, perhaps, while reducing intensity, mention uses for both loudness and intensity, when it is appropriate to consider the use of one or the other. He will show some examples of what happens during clipping, etc, and how that relates to loudness, as well as mention how level compression artifacts make things loud. Some of the apparent dynamic-range enhancement effects of distortion that rises with level will also be mentioned in passing for LP and analog tape enthusiasts.

There will be a short discussion on how to measure loudness, what the "loudness" control on a receiver is and why it's generally based on a fallacy (although many people may indeed like the idea of bass and treble boost), and how one might go on to learn more on the subject. The author will also briefly expound on how it would be helpful for the terms "loudness" and "intensity" (or SPL) to be used appropriately.

#### **About JJ Johnston**

Mr. Johnston worked 26 years for AT&T Bell Labs and its successor, AT&T Research Labs. He was one of the first investigators in the field of perceptual audio coding, one of the inventors and standardizers of MPEG 1/2 Audio Layer 3 and MPEG-2 AAC, as well as the AT&T Bell Labs/AT&T Research Labs PXFM (perceptual transform coding), PAC (perceptual audio coding) and the ASPEC algorithm that provided the best audio quality in the MPEG-1 audio tests. Most recently, he has been working in the area of auditory perception of soundfields, ways to capture soundfield cues and represent them, and ways to expand the limited sense of realism available in standard audio playback for both captured and synthetic performances. He is an IEEE Fellow, an AES Fellow, a NJ Inventor of the Year, an AT&T Technical Medalist and Standards Awardee, and a co-recipient of the IEEE Donald Fink Paper Award. He received his BSEE and MSEE degrees from Carnegie-Mellon University in 1975 and 1976, respectively.

# Elections

We will announce the slate of candidates for your section's officers and committee. Nominations will also be accepted from the floor.

We'll see you on April 25th! In the meantime, Audio!

Oh yes, Directions.

Our meetings are open to anyone interested in Audio. AES membership is NOT required for you to attend our meetings.

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