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**AES** Audio Engineering Society - Pacific Northwest Section

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

## **AESPNW Section Meeting March 2024 Meeting Notice**

### **Quartz - Approaching the Problem of Audio/Visual sync for procedural game systems**

**Presented by  
Max Hayes - Epic Games  
and  
AES Pacific Northwest Section**

**Meeting Produced by Lawrence Schwedler - AES  
PNW Committee**

**Wednesday, March 34, 2024  
(aka Wednesday, April 3, 2024)**

**Plato Auditorium, Digipen Institute of Technology,  
Redmond WA**

**7:30PM PST(UTC -8)**

**This is a Hybrid-Zoom meeting.**

The virtual doors open at 7PM. [Directions to Digipen](#)

Have you ever wondered why, as a sound designer, a sound doesn't play the instant you trigger it from game logic? Let's dive into the mechanics of why it doesn't by default, how a system can overcome those hurdles, and see examples of why it is powerful to wield such a solution.

Max's talk will be an overview of the barriers to sample-accurate audio scheduling, letting visuals and events be triggered by audio, and how Unreal Engine's "Quartz Subsystem" approaches this problem space.

## About Max Hayes

Max Hayes is an Audio Engine Programmer at Epic Games with a passion for building tools and technologies to facilitate the creation of immersive and innovative audio experiences. He studied Music Production and Sound Design as dual major at Berklee College of Music before transferring to DigiPen institute of Technology. There he graduated with a degree in Computer Science and Digital Audio.

Along the way Max has worked as a front-of-house mix engineer, freelance composer for independent films, and an instructor for both guitar performance and music production. Through these experiences he acquired a deep understanding of the creative and technical aspects of audio, which he now applies to his work at Epic Games.

At Epic, Max contributes to core audio engine technologies in the Unreal Engine including caching systems, ambisonics decoding, MetaSounds, DSP optimizations, and the Quartz scheduling system.

### Ticketing link

We now use Zeffy.com for event ticketing.

[AES PNW Ticket Link](#): Quartz - Approaching the Problem of Audio/Visual sync for procedural game systems with Max Hayes

**THIS EVENT IS FREE, OPEN TO ALL, AND AES MEMBERSHIP IS NOT REQUIRED**

## Dan Mortensen

*AES PNW 2022-2025 Section Chair*

*n.b. The material presented at our meetings is the opinion of the presenter and not necessarily that of the Society. You are encouraged to conduct your own research and to form your own opinions before adopting the presented material as Truth.*