

# A videogame sound designer's workshop

## Day 1 - From the concept to realization

- Short introduction of Matt's work and experience
- Key elements to understand the client and the project (basic needs, replayability factor, style, negotiating for time and how to calculate what to negotiate for)
- Understanding hardware limitations without limiting output quality (file sizes, memory allocations)
- Differences of concept and workflow between an independent developer and a AAA studio project
- What is expected of somebody working in audio production, and what personality traits can help you become a desired artist / contributor to a major development studio

## Sound FX

- Basic understanding of acoustics, audible frequency spectrum vs reproducible in reality, basic reverberation, how sound works in a digital domain vs in reality, conversion rates, monitoring systems and target hardware, volume standards, file compression, what DAW (digital audio workstation) to use, mixer in a video game editor vs mixer in a game engine, effects like distortion, modulation, compression, EQ, delay, common misconceptions with software, and what to avoid
- Different classification of SFX (spatial, 2D, UI sounds, menu sounds etc), how to conceptualize them
- Tools and implementation / working logic in Unreal 5 vs Unity (Unity built-in capabilities vs Asset Store Expansions, Unreal 5 metaSound modules (the ones I'm allowed to talk about since it's in early release), basic understanding of additive, granular and FM synthesis, and oscillators for effect generation in UE5), limitations of both engines in terms of memory, voices and audio file preparation
- Understanding round robin and why it's necessary, and how you produce it efficiently
- Understanding sidechain compression, when to use it and how
- Topology of sound within a game engine, incentives of SFX
- Mixer snapshots in Unity
- How to test your results and what issues to look for
- 25-30 mins of Q&A

## **Day 2 - Handling music in a videogame context, mixing and mastering of audio, money and salary**

### **in a major video game company vs a small one, what to expect during negotiations**

- Basic understanding of how music works (keys, tempo, bars, instruments, functions, dynamics and why even bother using it)
- How and what to measure; volume levels, sonic content, understanding ear-fatigue and basic biology behind the perception of sound
- Differences between handling cinematic audio vs video game audio - hardware, the audience, expectations, oversaturation of content, what to avoid and what to consider from the beginning of composition
- Preparing music for video game integration, what type of music works best and why, different conceptual directions and how to approach composing music for a project
- Linear music vs non-linear music, implementation differences between UE5 and Unity, proper file preparation, EQ-ing, bitrates, joint-stereo vs stereo vs mono, mistakes to avoid
- Integrating music into a project, mixing with SFX, what to avoid
- What does mastering means in a videogame context and why it's important, how to do it well and efficiently, what to avoid and how to experiment without delaying delivery
- Polish on video game audio, mixing for a target monitoring system vs standard expectations

### **The money aspect**

- What to expect and ask for in western Europe and in the US, how the Japanese are different in work ethic, what qualifications are necessary, what competencies are necessary, what they have to provide, basic hierarchy of video game companies and how to get integrated into a company such as Epic Games, or Ubisoft, what to avoid, common misconceptions and mistakes
- 25-30 mins Q&A