

Interactive Music Design Document

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Overview

I composed, edited, and exported every musical asset for three separate Wwise projects: **CHASE**, **RACE**, and **ELIMINATION**. Balancing a full second-year course load (plus two remedial courses) meant many late-night work sessions, but this course has been one of my favorites. Below is a concise, reader-friendly breakdown of each prototype, focusing strictly on the systems and details you provided.

Common Framework

- **Sections (Switch Container):** A, B, C, D (and E/F/G/H as noted)
- **LevelStep (Switch Container):** Calm vs. Intense (fades in/out over 0.5 s with a – 0.5 s offset)
- **RTPCs:**
 - **GameState** → selects current Section
 - **LevelStep** → toggles between Calm (base layers) and Intense (full layers)
 - **Alive** → 0 → immediate Defeat state; 1 → normal
 - **Victory** → 1 → one-shot Victory FullMix
 - **Defeat** → 1 → one-shot Defeat FullMix
 - **DistanceReverb** (ELIMINATION only) → LPF cutoff + reverb bus send

1. Prototype 1: CHASE

BPM: 120

1.1. Concept & Emotional Arc

The player is relentlessly pursued through **five surreal realms**, each corresponding to Sections A–E. When the chase ends, **Section F** (GameOver) or **Section G** (Victory) plays. An additional **Section H** (Stinger Alert) provides an immediate danger cue.

1. **Section A (Forest Prelude):** Suspenseful strings + plucked synth → curiosity.
2. **Section B (Mechanical Catacombs):** Brass + rhythmic loops → rising tension.
3. **Section C (Haunted Cathedral):** Ethereal horns + dissonant strings → dread.
4. **Section D (Techno-Labyrinth):** Dark arps, Reese bass, electronic drums → frantic chase.
5. **Section E (Liminal Zone):** Glitched alarms, horror guitar, heavy bass → peak horror.
6. **Section F (GameOver):** Bass drone + horror FX (one-shot).
7. **Section G (Victory):** Orchestral/brass fanfare (one-shot).
8. **Section H (Stinger Alert):** Two-bar brass/percussion hit (one-shot).

1.2. Section Breakdown (Calm vs. Intense)

Each Section has one FullMix asset plus individual stems. Under **LevelStep = Calm**, only foundational stems play. Under **LevelStep = Intense**, additional stems fade in over 0.5 s. Wherever noted, two loop variations alternate every 8 bars.

Section A (Forest Prelude)

- **FullMix:** Chase-A-FullMix_120bpm
- **Calm (foundational stems):**
 - Assignment3_Prawpre-Kontakt8(2) (choir pad)
 - Chase-A-StringsBass_120bpm (low strings + bass)
 - Chase-A-SynthPluck_120bpm (plucked synth motif)
- **Intense (adds over 0.5 s):**
 - Assignment3_Prawpre-Kontakt9 (ambient drone)
 - Chase-A-StringsTheme2_120bpm (second string theme)
 - Chase-A-StringsTheme_120bpm (primary string theme)
- **Horizontal Variation:** Chase-A-StringsTheme_120bpm ↔ Chase-A-StringsTheme2_120bpm

Section B (Mechanical Catacombs)

- **FullMix:** Chase-B-FullMix_120bpm
- **Calm:**

- Chase-B-DrumLoop_120bpm (mechanical rhythm)
- Chase-B-StringsBasses_120bpm (low string support)
- Chase-B-Flutes_120bpm (high flute flourishes)
- **Intense:** (adds over 0.5 s)
 - Chase-B-Brass_120bpm (brass stabs)
 - Chase-B-Clarinets_120bpm (woodwind accents)
 - Chase-B-Glockenspielen_120bpm (bell motifs)
 - Chase-B-Strings_120bpm, Chase-B-Strings2_120bpm (core strings)
 - Chase-B-StringsColLegno_120bpm, Chase-B-StringsUncanny_120bpm (col legno & dissonant)
- **Horizontal Variations:**
 - Chase-B-Strings_120bpm ↔ Chase-B-Strings2_120bpm
 - Chase-B-DrumLoop_120bpm ↔ (unnamed second variation)

Section C (Haunted Cathedral)

- **FullMix:** Chase-C-FullMix_120bpm
- **Calm:**
 - Chase-C-DrumLoop_120bpm (darker percussion)
 - Chase-C-Strings_120bpm (core strings)
 - Chase-C-StringsBasses_120bpm (low strings)
- **Intense:** (adds over 0.5 s)
 - Chase-C-Brass_120bpm, Chase-C-BrassFlutter_120bpm (brass layers)
 - Chase-C-StringsHigh_120bpm (high sustained strings)
 - Chase-C-StringsTheme2_120bpm, Chase-C-StringsTheme_120bpm (string themes)
 - Chase-C-StringsUncanny_120bpm (dissonant clusters)
- **Horizontal Variations:**
 - Chase-C-Strings_120bpm ↔ Chase-C-StringsTheme_120bpm
 - Chase-C-DrumLoop_120bpm ↔ (second variation)

Section D (Techno-Labyrinth)

- **FullMix:** Chase-D-FullMix_120bpm
- **Calm:**
 - Chase-D-Anvil_120bpm (metallic hits)
 - Chase-D-ArpSynth_120bpm (rhythmic arpeggio)
 - Chase-D-ReeseBass_120bpm (deep bass)
- **Intense:** (adds over 0.5 s)

- Chase-D-Drums_120bpm (electronic drums)
- Chase-D-LeadSynth_120bpm (synth lead)
- Chase-D-StringsTheme_120bpm (string motif carry-over)
- **Horizontal Variations:**
 - Chase-D-ArpSynth_120bpm ↔ (second variation)
 - Chase-D-Drums_120bpm ↔ (second variation)

Section E (Liminal Zone)

- **FullMix:** Chase-E-FullMix_120bpm
- **Calm:**
 - Chase-E-AlarmSynth_120bpm (siren-style synth)
 - Chase-E-ComputerSynth_120bpm (low glitch textures)
 - Chase-E-HorrorBass_120bpm (subtle horror pulse)
- **Intense:** (adds over 0.5 s)
 - Chase-E-Anvil_120bpm (heavy metallic)
 - Chase-E-Drums_120bpm (hardened electronic drums)
 - Chase-E-GlitchSynth_120bpm (fractured arpeggio)
 - Chase-E-GuitarRiff_120bpm (horror guitar riff)
 - Chase-E-HorrorDrumBeat_120bpm (driving horror percussion)
 - Chase-E-LeadSynth_120bpm (noise-laced lead)
 - Chase-E-ReeseBass_120bpm (sub Reese bass)
- **Horizontal Variations:**
 - Chase-E-GlitchSynth_120bpm ↔ (second variation)
 - Chase-E-GuitarRiff_120bpm ↔ (second variation)

Section F (GameOver)

- **FullMix (one-shot):** Chase-F-GameOver-FullMix_120bpm
 - Bass drone + ominous drums + horror FX + low impact hits + Reese/synth bass warp.

Section G (Victory)

- **FullMix (one-shot):** Chase-G-Victory-FullMix_120bpm
 - Orchestral/brass fanfare—clear and triumphant.

Section H (Stinger Alert)

- **FullMix (one-shot):** Chase-H-StingerAlert-FullMix_120bpm
 - Two-bar brass/percussion alert—overrides all.

1.3. Interactive Techniques

- **Vertical Layering (LevelStep):**
 - **Calm:** foundational stems only.
 - **Intense:** add all “high-intensity” stems (fade in 0.5 s).
- **Horizontal Re-sequencing:**
 - Alternate two loop variations every 8 bars for a key stem in each Section.
- **Stingers & Transitions:**
 - **A→B:** DAW-built 4-bar reversed strings + timpani riser.
 - **B→C:** 2-bar brass + drum roll.
 - **C→D:** 3-bar choir swell + low drum hit.
 - **D→E:** 4-bar glitch arpeggio riser.
 - **E→F:** 2-bar “collapse” noise + reversed alarm.
 - **Victory/Defeat:** Sections G & F are one-shot FullMixes.
- **RTPCs:**
 - **GameState:** selects Section A...H.
 - **LevelStep:** 0 = Calm, 1 = Intense.
 - **Alive:** 0 → Section F, 1 → normal.
 - **Victory:** 1 → Section G.
 - **Defeat:** 1 → Section F.

2. Prototype 2: RACE

BPM: 150

2.1. Concept & Emotional Arc

You race atop floating Egyptian pyramids, chased by angels and demons. Each Section (A–D) marks escalating stakes. Because of time constraints, full Victory/Defeat audio wasn’t created—placeholders from CHASE are used.

1. **Section A (Gate Prep):** Bass groove + choir hints → anticipation.
2. **Section B (First Lap):** Metallic bass + breakbeats → driving momentum.
3. **Section C (Ambush in the Sky):** Layered choirs + heavy bass → cinematic tension.
4. **Section D (Final Sprint):** Full hybrid rock + electronic → peak adrenaline.

2.2. Section Breakdown (Calm vs. Intense)

Section A: Gate Prep

- **FullMix:** Racing-A-FullMix_150bpm
- **Calm:** Race-A-BassGroove2, Race-A-Choir1, Race-A-Kick
- **Intense (fade in):** Race-A-BassUpBeat, Race-A-Choir2, Race-A-Epicdrum, Race-A-Kick2
- **Horizontal Variation:**
 - Race-A-BassGroove2_150bpm ↔ BassGroove2_Var2_150bpm
 - Race-A-Choir1_150bpm ↔ Choir1_Var2_150bpm
- **Transition A→B:** Race-AtoB-Transition_150bpm (4-bar rise + gong).

Section B: First Lap

- **FullMix:** Racing-B-FullMix_150bpm
- **Calm:** Race-B-ArpSynth2, Race-B-BassMetalic2, Race-B-DrumFX
- **Intense (fade in):** Race-B-ArpSynth, Race-B-BassMetalic, Race-B-BreakBeat, Race-B-DrumFX3, Race-B-Drums
- **Horizontal Variation:**
 - Race-B-ArpSynth_150bpm ↔ ArpSynth_Var2_150bpm
 - Race-B-DrumFX_150bpm ↔ DrumFX_Var2_150bpm
- **Checkpoint Stinger:** Race-B-Checkpoint-Stinger_150bpm (taq drum + brass flick)
- **Transition B→C:** Race-BtoC-Transition_150bpm (2-bar choir + drum roll).

Section C: Ambush in the Sky

- **FullMix:** Racing-C-FullMix_150bpm
- **Calm:** Race-C-ArpSynth2, Race-C-Bass1, Race-C-Choir2, Race-C-DrumFX
- **Intense (fade in):**
 - Race-C-ArpSynth, Race-C-BassMetal1, Race-C-BassMetal2, Race-C-BreakBeat, Race-C-Choir3, Race-C-DrumFX2, Race-C-Strings1, Race-C-Strings,
 - **Transition Segment:** RaceSegmentCver3-Bombienie_150bpm (8-bar cinematic riser)
- **Horizontal Variation:**
 - Race-C-ArpSynth_150bpm ↔ ArpSynth_Var2_150bpm
 - Race-C-Bass1_150bpm ↔ Bass1_Var2_150bpm
- **Transition C→D:** Crossfade of Bombienie into D's stems.

Section D: Final Sprint

- **FullMix:** Racing-D-FullMix_150bpm
- **Calm:** Race-D-EpicDrumFX2, Race-D-InterestingSynth, Race-D-SynthArp1, Race-D-DrumFX1, Race-D-Strings1
- **Intense (fade in):**
 - Race-D-InterestingSynth2, Race-D-Lead2, Race-D-Strings2, Race-D-BassMetalic, Race-D-BreakBeat, Race-D-EpicDrumFX, Race-D-Lead1
- **Horizontal Variation:**
 - Race-D-Strings1_150bpm ↔ Strings1_Var2_150bpm
 - Race-D-DrumFX1_150bpm ↔ DrumFX1_Var2_150bpm
- **Stingers:** None new; Victory/Defeat placeholders from CHASE.

2.3. Interactive Techniques

- **Vertical Layering (LevelStep):**
 - **Calm:** base stems only.
 - **Intense:** all stems fade in over 0.5 s.
- **Horizontal Re-sequencing:**
 - Alternating loop variants every 8 bars.
- **Stingers & Transitions:**
 - A→B: Rising synth + gong
 - B (Checkpoint): Taq drum + brass flick
 - B→C: Choir + drum roll
 - C→D: “Bombienie” riser
 - Victory/Defeat: Borrowed from CHASE
- **RTPCs:**
 - **GameState:** 0...3 → Section A...D
 - **LevelStep:** 0 = Calm, 1 = Intense
 - **Alive:** not used explicitly (Race ends by section logic)
 - **Victory/Defeat:** placeholders—for CHASE’s Section G/F
 - **PlayerSpeed:** prepared for future tempo changes (not used here)

3. Prototype 3: ELIMINATION

BPM: 90

3.1. Concept & Emotional Arc

You land on a beautiful alien world, only to be betrayed once you cross a lava canyon. Four Sections (A–D) escalate from uneasy exploration to a final airship escape. A simple guitar + reverb is the Victory theme; a four-note semitone descent (spaced 0.5 s) is the Defeat cue.

1. **Section A (Exploration):** Ethereal pads + subtle synth/guitar → uneasy calm.
2. **Section B (Lava Horde):** Bass + drums → heavy metal assault.
3. **Section C (Hacker's Escape):** Glitchy electronics + breakbeats → frantic urgency.
4. **Section D (Final Air Assault):** DOOM-style guitars + trap drums → peak stress.
5. **Section G (Victory):** Electric guitar + reverb (one-shot).
6. **Section F (Defeat):** Four semitone-descending notes (one-shot, each 0.5 s apart).

3.2. Section Breakdown (Calm vs. Intense)

Section A: Exploration

- **FullMix:** Elimination-A-FullMix_90bpm
- **Calm:**
 - Elimination-A-Bass1_90bpm
 - Elimination-A-Choir_90bpm
 - Elimination-A-Synth1_90bpm
 - **DistanceReverb:** 0.1 → LPF \approx 18 kHz; ReverbBus -12 dB
- **Intense (fade in):**
 - Elimination-A-Bass2_90bpm
 - Elimination-A-ComputerDrumBeat_90bpm
 - Elimination-A-EternalChoir_90bpm
 - Elimination-A-PhraseGuitar_90bpm
 - **DistanceReverb:** 0.3 → LPF \approx 4 kHz; ReverbBus -6 dB
- **Horizontal Variation:** Elimination-A-Synth1_90bpm \leftrightarrow second variation
- **Transition (A→B):** Elimination-AtoB-DigitalMeltdown_90bpm (4-bar granular glitch → brass smear)

Section B: Lava Horde

- **FullMix:** Elimination-B-FullMix_90bpm
- **Calm:**
 - Elimination-Ambience_90bpm

- Elimination-B-Bass2_90bpm
- Elimination-B-DrumFX_90bpm
- Elimination-B-ComputerScience_90bpm
- **DistanceReverb:** 0.4 → LPF ≈ 3 kHz; ReverbBus -3 dB
- **Intense (fade in):**
 - Elimination-B-BassMetal2_90bpm
 - Elimination-B-BassMetal_90bpm
 - Elimination-B-Thunder_90bpm
 - Elimination-B-Guitar_90bpm
 - **DistanceReverb:** 0.6 → LPF ≈ 1 kHz; ReverbBus 0 dB
- **Horizontal Variation:**
 - Elimination-B-ComputerScience_90bpm ↔ Var2
 - Elimination-B-DrumFX_90bpm ↔ Var2
- **Transition (B→C):** Crossfade into Elimination-C-ArpSynth1_90bpm

Section C: Hacker's Escape

- **FullMix:** Elimination-C-FullMix_90bpm
- **Calm:**
 - Elimination-C-ArpSynth1_90bpm
 - Elimination-C-Bass1_90bpm
 - Elimination-C-DrumFX_90bpm
 - **DistanceReverb:** 0.5 → LPF ≈ 2 kHz; ReverbBus 0 dB
- **Intense (fade in):**
 - Elimination-C-ArpSynth2_90bpm
 - Elimination-C-Bass2_90bpm
 - Elimination-C-BassMetal1_90bpm
 - Elimination-C-BassMetal2_90bpm
 - Elimination-C-DrumFX2_90bpm
 - Elimination-C-SystemOverload_90bpm
 - **DistanceReverb:** 0.8 → LPF ≈ 500 Hz; ReverbBus +3 dB
- **Horizontal Variation:**
 - Elimination-C-ArpSynth1_90bpm ↔ Var2
 - Elimination-C-Bass1_90bpm ↔ Var2
- **Hack Success Stinger:** Elimination-C-HackSuccess_Stinger_90bpm (blip + brass smear)
- **Transition (C→D):** Elimination-CtoD-EngineIgnite_90bpm (8-bar rising synth arpeggio)

Section D: Final Air Assault

- **FullMix:** Elimination-D-FullMix_90bpm
- **Calm:**
 - Elimination-D-Choir_90bpm
 - Elimination-D-DrumFX_90bpm
 - Elimination-D-MetalBass_90bpm
 - **DistanceReverb:** 0.7 → LPF \approx 800 Hz; ReverbBus 0 dB
- **Intense (fade in):**
 - Elimination-D-DoomGuitar1_90bpm
 - Elimination-D-DoomGuitar2_90bpm
 - Elimination-D-Drums_90bpm
 - Elimination-D-GuitarSolo_90bpm
 - **DistanceReverb:** 1.0 → LPF \approx 200 Hz; ReverbBus +6 dB
- **Horizontal Variation:**
 - Elimination-D-DrumFX_90bpm \leftrightarrow Var2
 - Elimination-D-DoomGuitar1_90bpm \leftrightarrow Var2

Section G (Victory)

- **FullMix (one-shot):** Elimination-G-Victory-FullMix_90bpm
 - Simple electric guitar riff + reverb.

Section F (Defeat)

- **FullMix (one-shot):** Elimination-G-Defeat-FullMix_90bpm
 - Four semitone-descending one-shots, each 0.5 s apart.

3.3. Interactive Techniques

- **Vertical Layering:**
 - Calm → base stems; Intense → fade in everything else (0.5 s).
- **Horizontal Re-sequencing:**
 - Switch between two loop variations every 8 bars for specified stems.
- **Stingers & Transitions:**
 - A→B: Granular glitch → brass smear (AtoB-DigitalMeltdown)
 - B→C: Crossfade → C-ArpSynth1
 - C (Hack Success): C-HackSuccess_Stinger
 - C→D: Engine ignite riser (CtoD-EngineIgnite)
 - D (Victory): G-Victory-FullMix
 - D (Defeat): G-Defeat-FullMix

- **RTPCs:**
 - **GameState:** selects Section A...D, G, or F.
 - **LevelStep:** 0 = Calm, 1 = Intense.
 - **Alive:** 0 → Section F; 1 → normal.
 - **Victory/Defeat:** set to 1 to jump to G or F.
 - **DistanceReverb:**
 - Controls Master LPF (20 kHz → 200 Hz)
 - Controls ReverbBus send (−12 dB → +6 dB)
 - Ramps as the player moves deeper into Sections A→B→C→D.