Audiovisual Materials - README

This document describes the following:

- The audiovisual materials that can be found in this folder
- The choice of filters for 7OA binaural rendering
- The channel routing used

Audiovisual Materials

Note: All visual materials have been provided with a binaural mix only to avoid packaging/ playback issues. All audio files/ videos start at the same time and so can be swapped out.

Visual materials have been rendered in 4K with 10-bit H.265 encoding.

1_MaidaVale

- Multitrack recording, mixed using Dolby Atmos - delivery formats:
    - Binaural - Generated using Dolby Atmos renderer
    - 7.1.4 - Generated using Dolby Atmos renderer
    - 7OA - 7.1.4 speaker sources encoded to 7OA
    - Atmos ADM
    - EBU ADM - Generated using EAR
- Note: Both ADM files contain the drums as a 7.1.2 bed due to channel restrictions on the system used to mix the materials
- Motion-capture visuals generated in Unreal:
    - Performers and instruments captured using a Vicon system
    - Face-tracking captured using the LiveLink application for Apple devices

2_Macbeth

- Multitrack recording, mixed using a 7OA workflow:
    - Binaural - Decoded from 7OA using SADIE II KEMAR Diffuse Field Equalised HRTFs
    - 7.1.4 - Decoded from 7OA (no content on LFE channel)
    - 7OA
    - EBU ADM - Generated using EAR, complex spatial elements and reverbs rendered as 3OA
- Motion-capture visuals generated in Unreal:
    - Performers captured using a combination of Vicon and XSens systems
    - Face-tracking captured using the LiveLink application for Apple devices
    - Additional face-tracking re-recorded in post-production

3_Speech

- Multitrack recording (recorded in an anechoic chamber), mixed using a 7OA workflow:
    - Binaural - Decoded from 7OA using SADIE II Diffuse Field Equalised HRTFs
    - 7.1.4 - Decoded from 7OA (no LFE channel)
    - 7OA
    - EBU ADM - Generated using EAR, complex spatial elements and reverbs rendered as 3OA
- Motion-capture visuals generated in Unreal:
    - Face-tracking captured using the LiveLink application for Apple devices

Binaural Decoding (from 7OA)

- Selected filters: SADIE II KEMAR HRTFs which were Diffuse Field Equalised

Channel Routing (7.1.4)

- All 7.1.4 materials exported with the following channel order (default Dolby Atmos channel order [1]):
    - FL
    - FR
    - C
    - LFE
    - SSL
    - SSR
    - SBL
    - SBR
    - UFL
    - UFR
    - UBL
    - UBR

Other Resource

Workflow Notes

- Please see these links for notes on the audiovisual workflows used:
    - Maida Vale
    - Macbeth
    - Speech

References

[1] “BS.2051 : Advanced sound system for programme production,” www.itu.int. https://www.itu.int/rec/R-REC-BS.2051/en (accessed Nov. 17, 2023).