February 27th 2023

SPLENDOR OMNIA

Dolby Atmos

Home Entertainment & Music Room Certified

"ACOUSTICS ISO REPORT"

February 28th 2023.

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Dolby
DOLBY CERTIFIED PARTNER LATAM

February 27th 2023

Acoustics ISO REPORT -

Tepoztlán, Mexico February 27th 2023.

Acoustic conditions obtained in the Re-recording Dolby Atmos Studio Home Entertainment & Music - "SPLENDOR OMNIA"

(Isolation and Acoustic Treatment)

Acoustics evaluation of the Multichannel Studio located in Tepoztlán.

- Insulation, measurement of background noise inside the room (NC Curve)
- Reverberation time with acoustic treatment finished.

Acoustics Methodology

The Acoustics Evaluation was performed with multiplexed microphones placed in the producer´s position for frequency response analysis of the sound system per 1/3rd Octave, noise isolation in STC values and background noise in dBA/NC values through center bands per octave, all in accordance with Standard ISO 266, and by 30 seconds.

where values per band are summed to give the global reading under the weighting A/C, according to time to average it. The sensitivity and frequency response of each channel was also evaluated to comply the Standard SMPTE ST 202/ISO 2969. The documentation for the acoustics evaluation is reported according to the international Standard ISO 1996-2003.

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Test Conditions

Until the aforementioned date, the room has been finished with the Acoustic Isolation and Acoustic treatment.

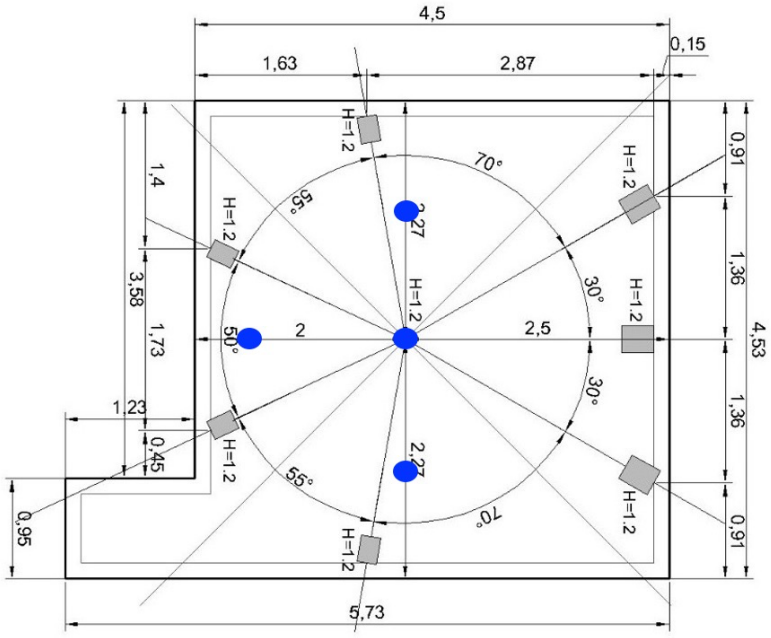
As acoustic instrumentation, the spectrum analyzer and reverberation time meter D2 – WinRTA was used with the criteria of the ISO6926 standard using the studio system as an electroacoustic element for amplifying the pink noise generated by the system.

Atmospheric Conditions and Acoustic Instrumentation:

Acoustics measurements were performed under temperature and pressure conditions in Ocotitlán, Morelos (2,068m altitude, 19°00'13.73" N, 99°03'55.00"O, 1Pa = 94.12 dB @ 26°C with 30% of humidity) February 21th, 2023.

Microphone Placement

The spatial evaluations (Splendor Omnia in Ocotitlán, Morelos), were carried out with the microphone position illustrated by the purple squares in the layout below, aiming the microphones at 90 degree



Mic 1: Center seating position
Mic 2: Left seating position
Mic 3: Right seating position
Mic 4: Back seating position

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DART DESIGN

Equipment List for Dolby Atmos Home Entertainment Studio

Speakers		Amplifiers		
Model	Count	Model	Count	Unused
JBL LSR308	3			
JBL LSR310S	2			
JBL LSR305	2			
JBL 305P MkII	6			

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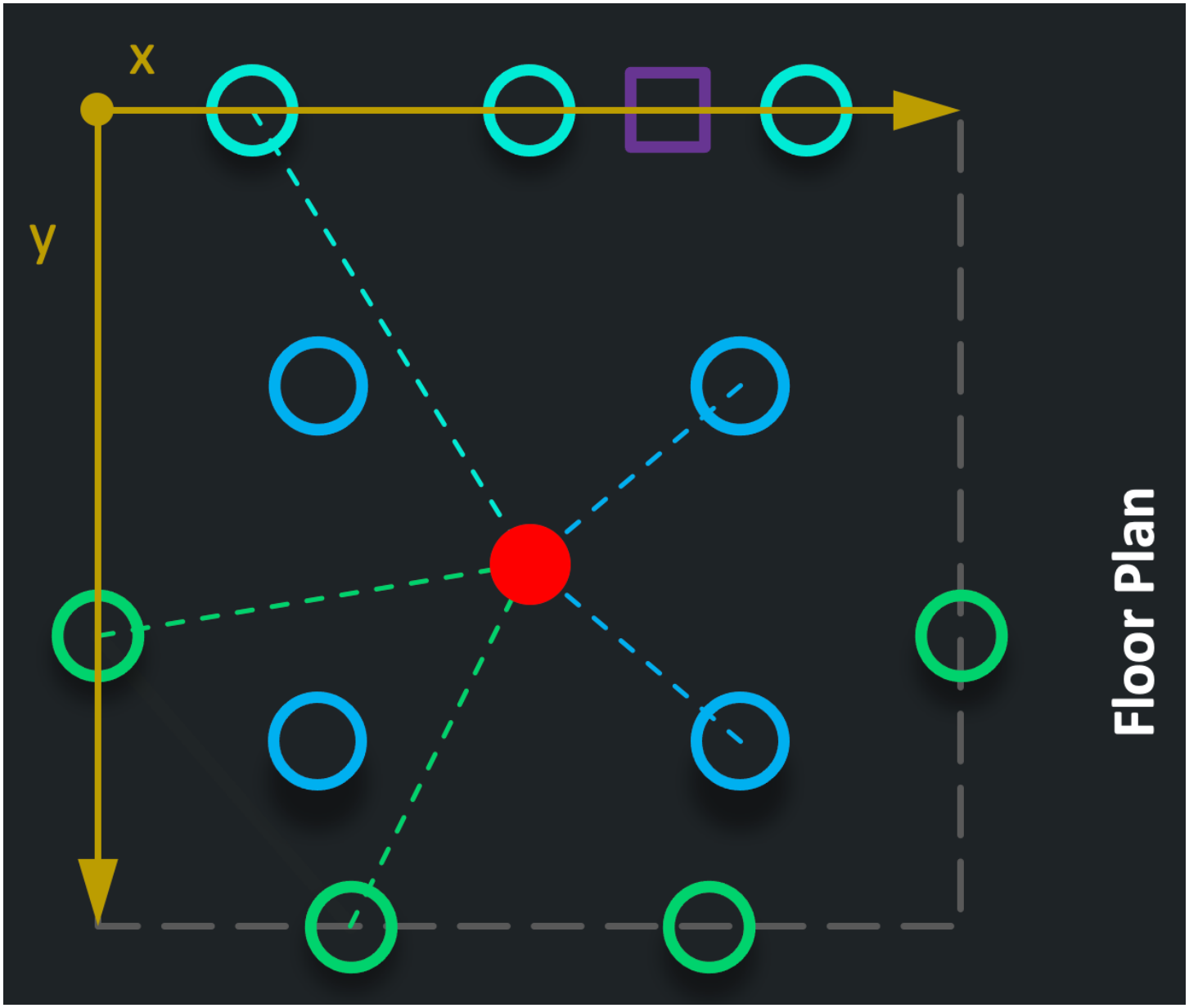
Floor Plan



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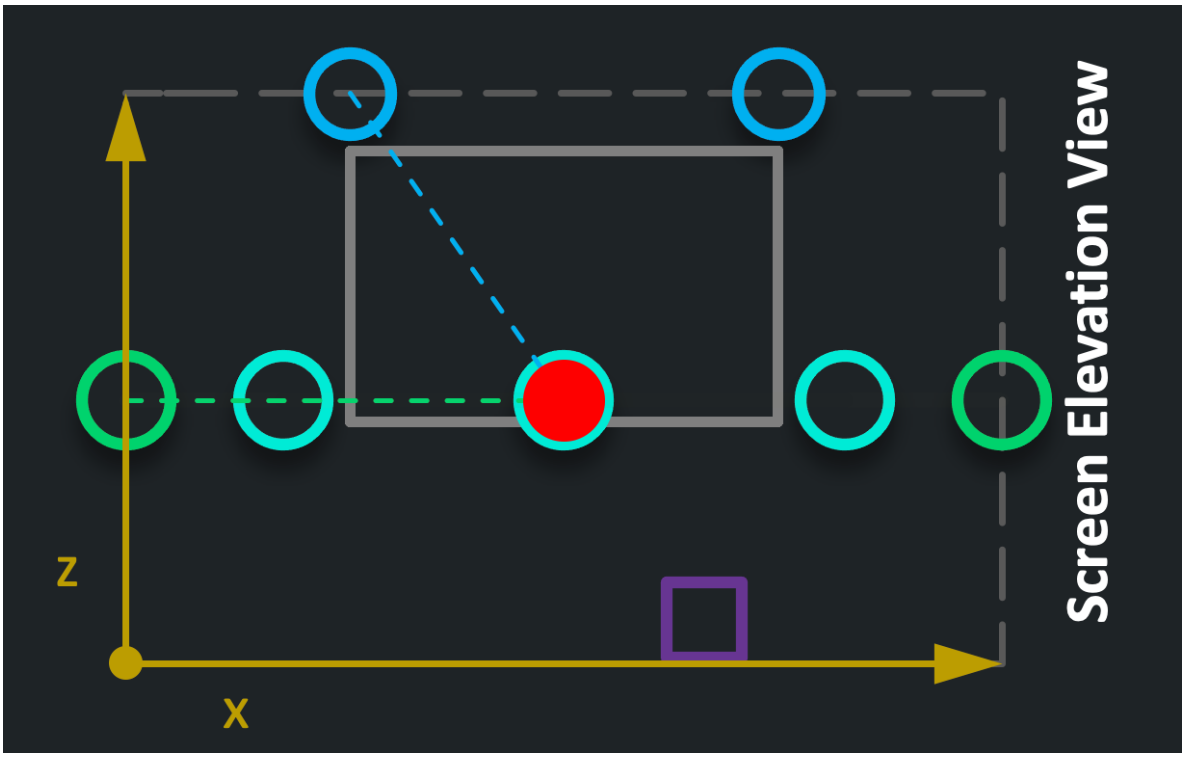
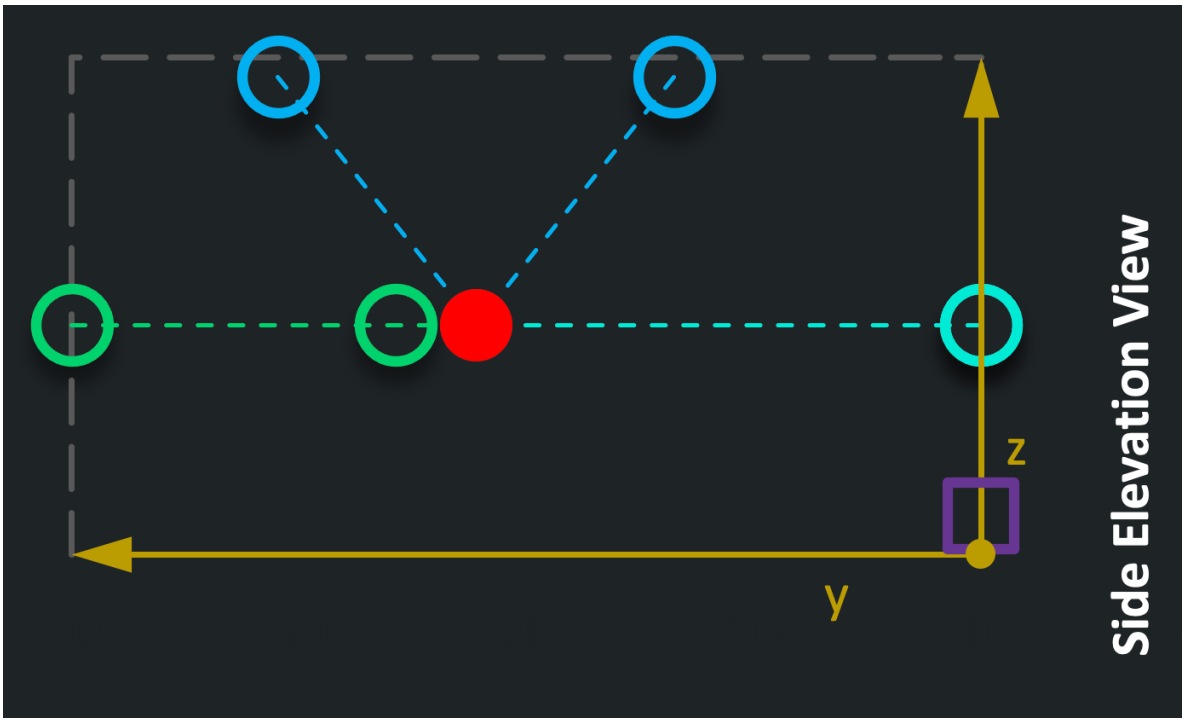
Screen Elevation View



Side Elevation View



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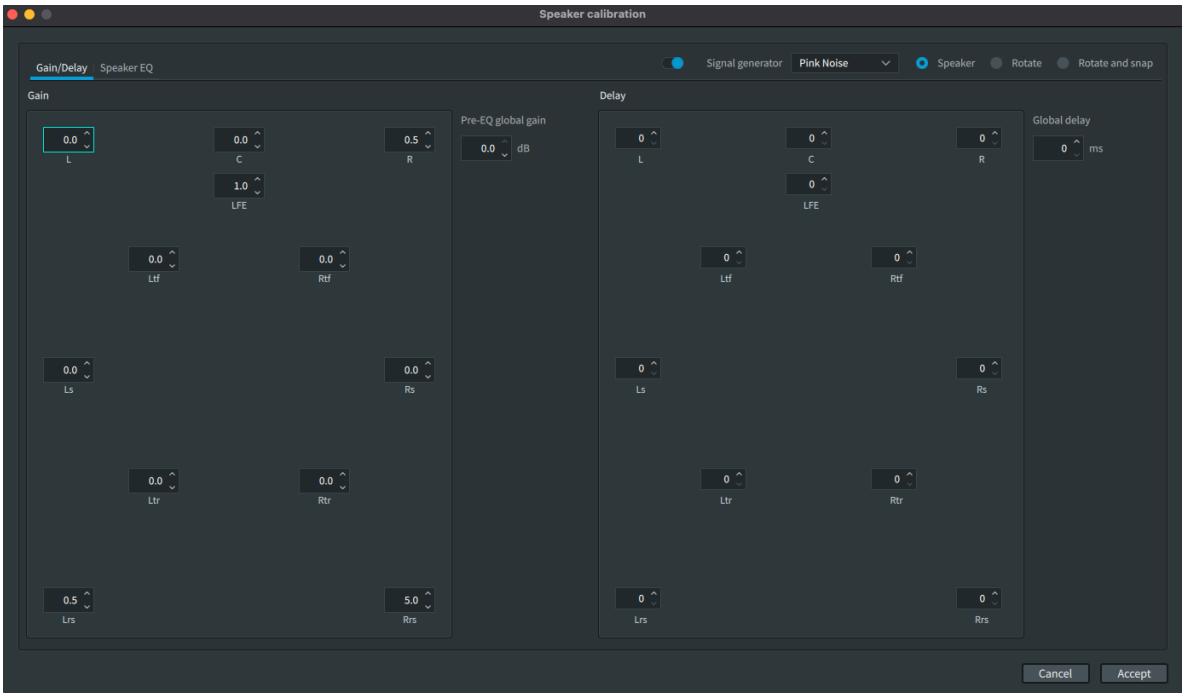
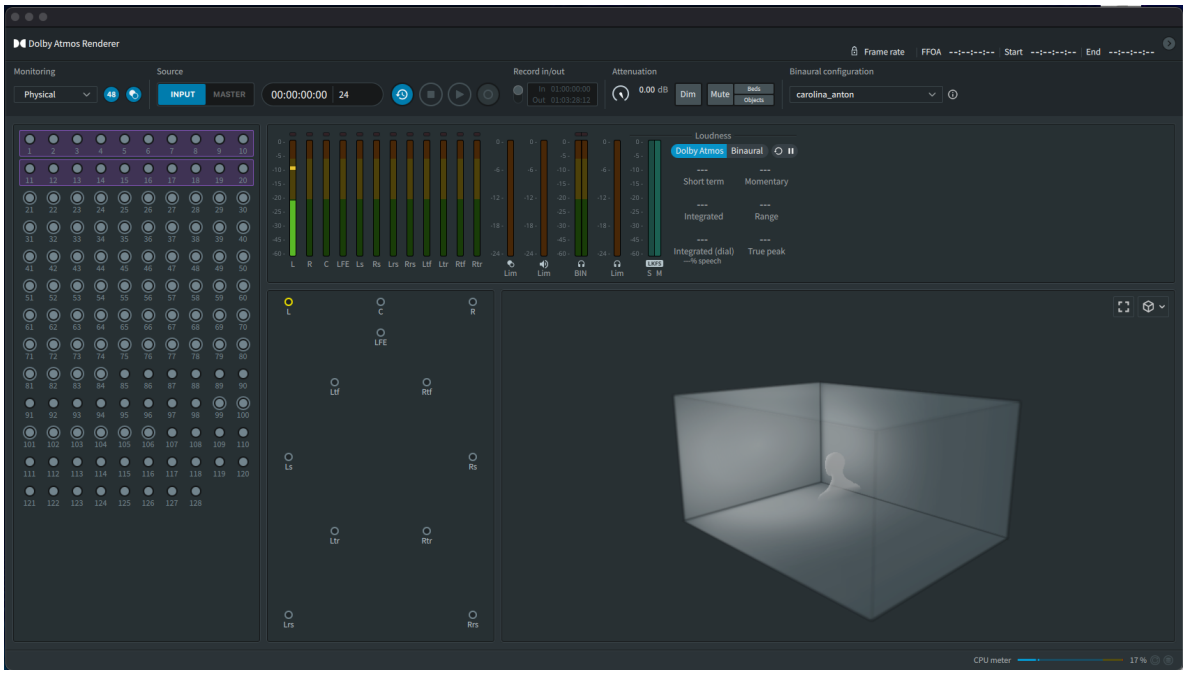
Pink Noise Dolby Generator

The pink noise used is from Dolby Atmos Mastering Suite ver. 3.7.2 , Pink Noise -20dB Full Scale .





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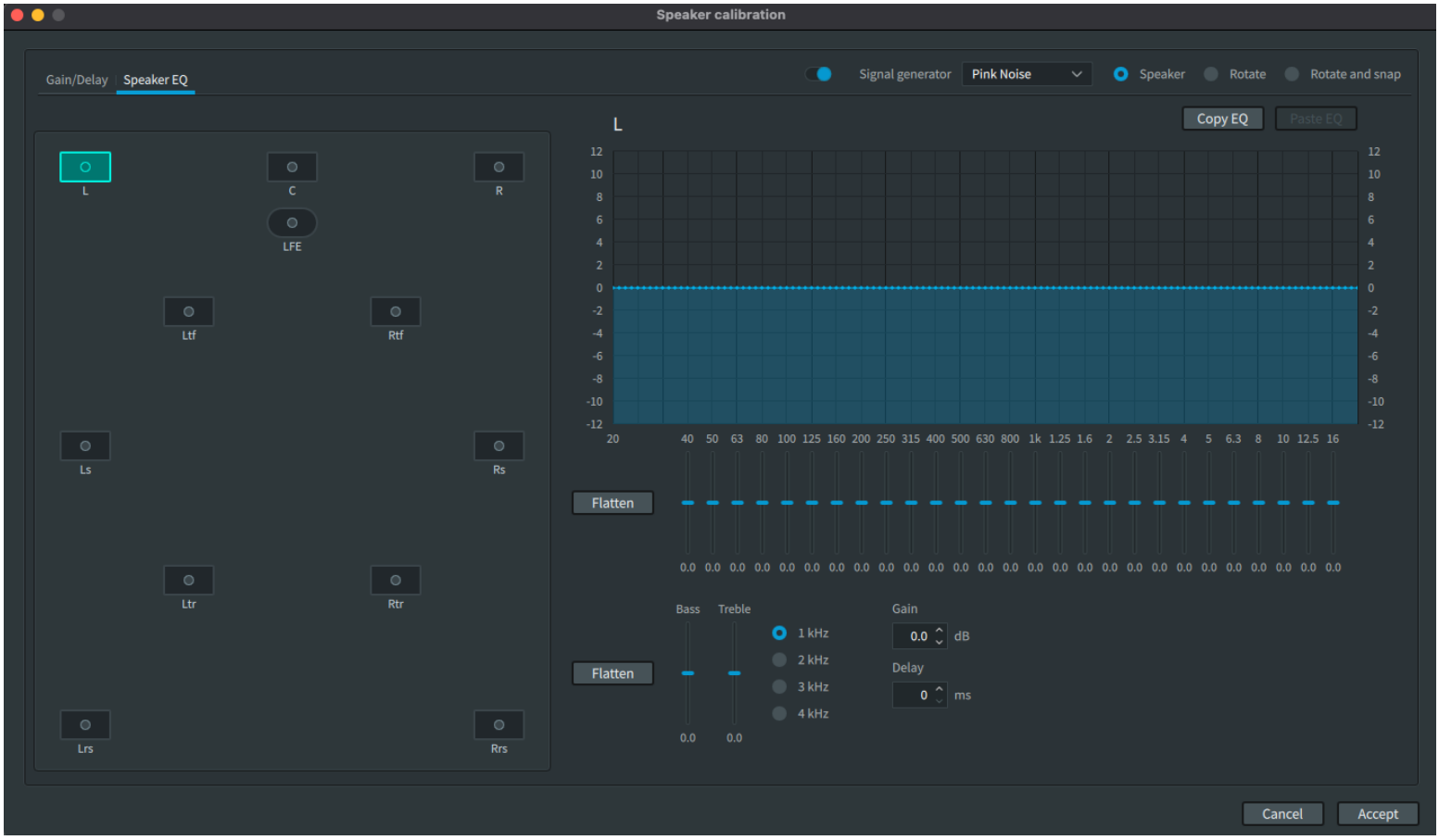
The processing to calibrate the room was used from DAMS
(Dolby Atmos Mastering Suite Process)

The EQs and Delays process was used to calibrate each of the speakers and LFEs



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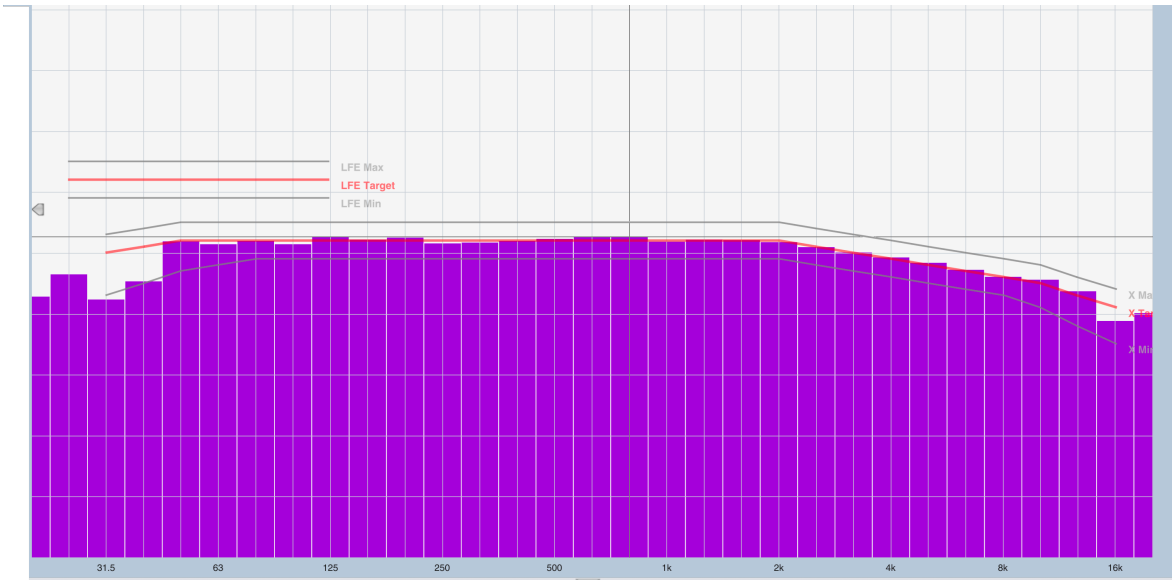
Results

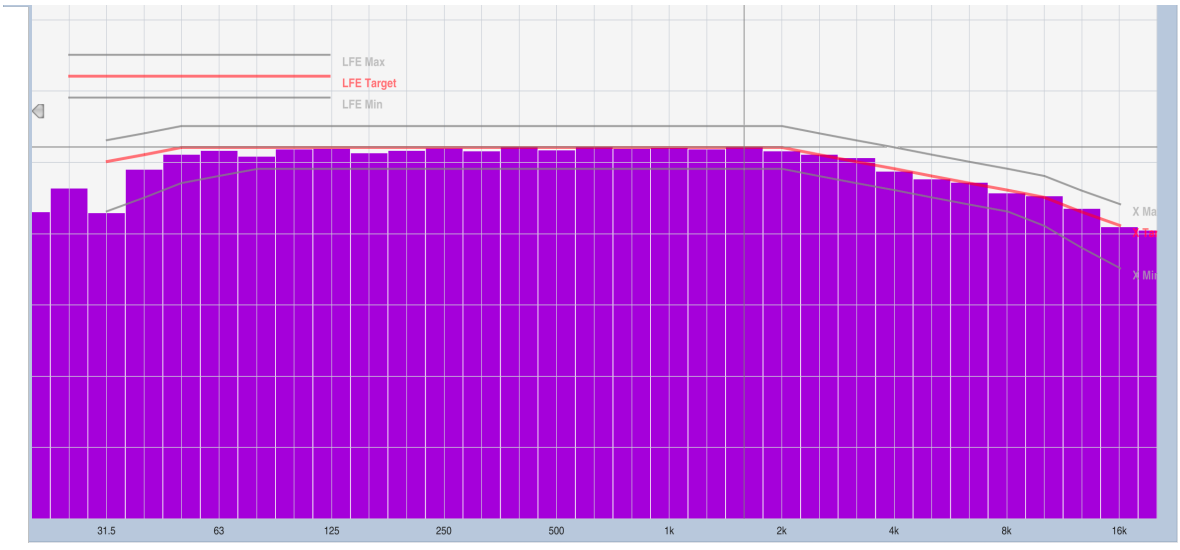
“X-Curve” calibration response @ - 20 dBFS, SMPTE ST202/ISO 2969:

System Dolby Atmos HE/Music 85 SPL dB C

Left



Right



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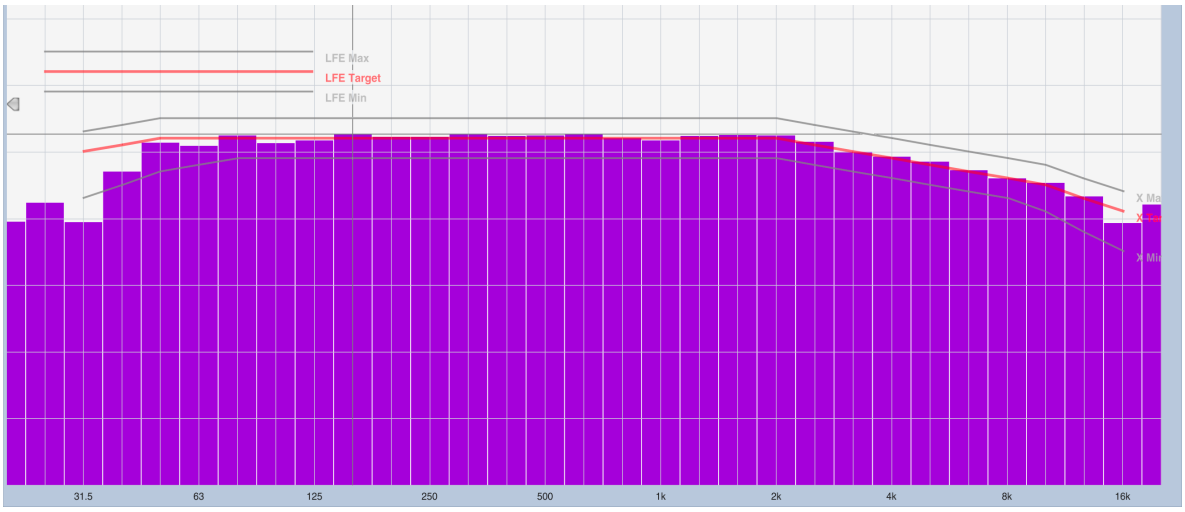
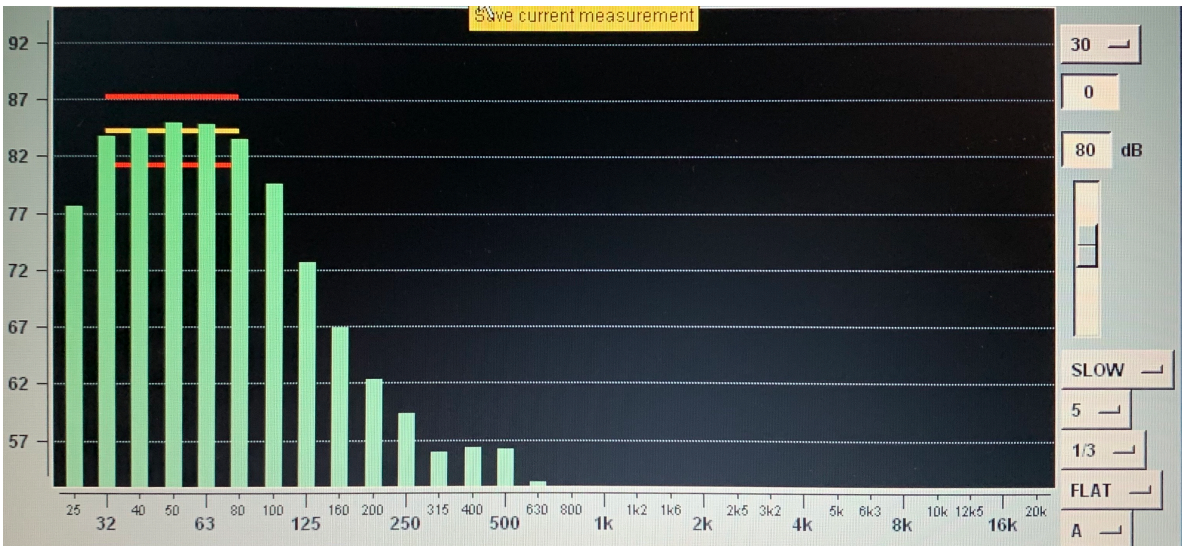
Center



LFE



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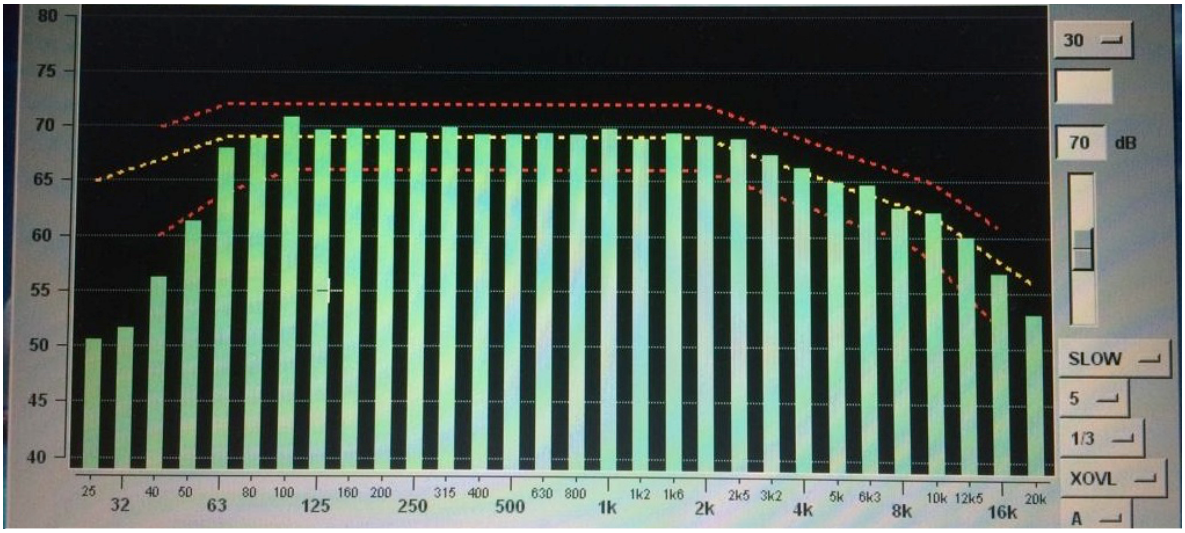
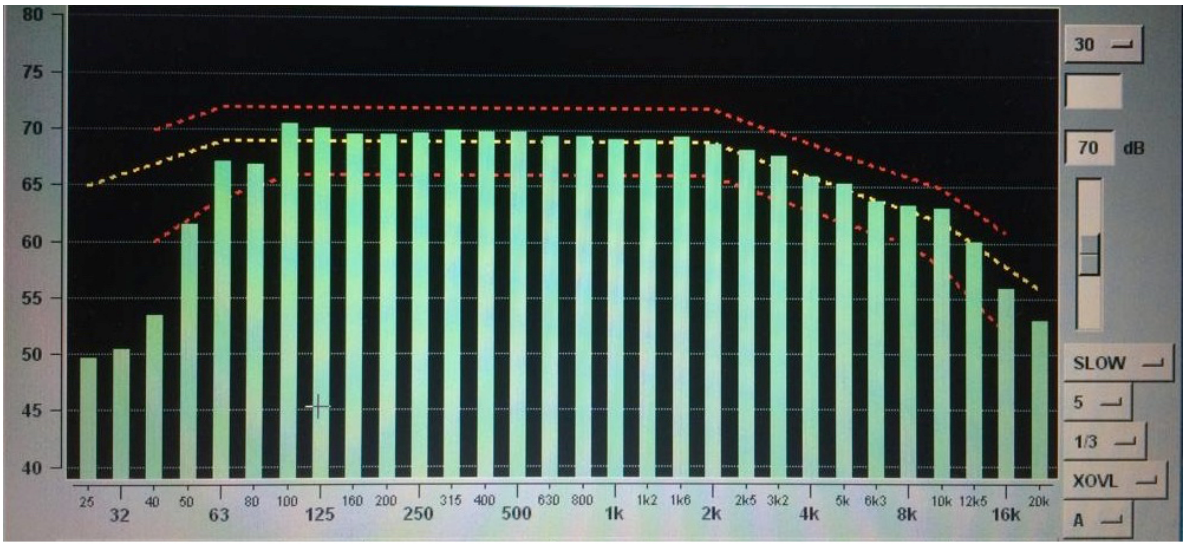
LSS



RSS



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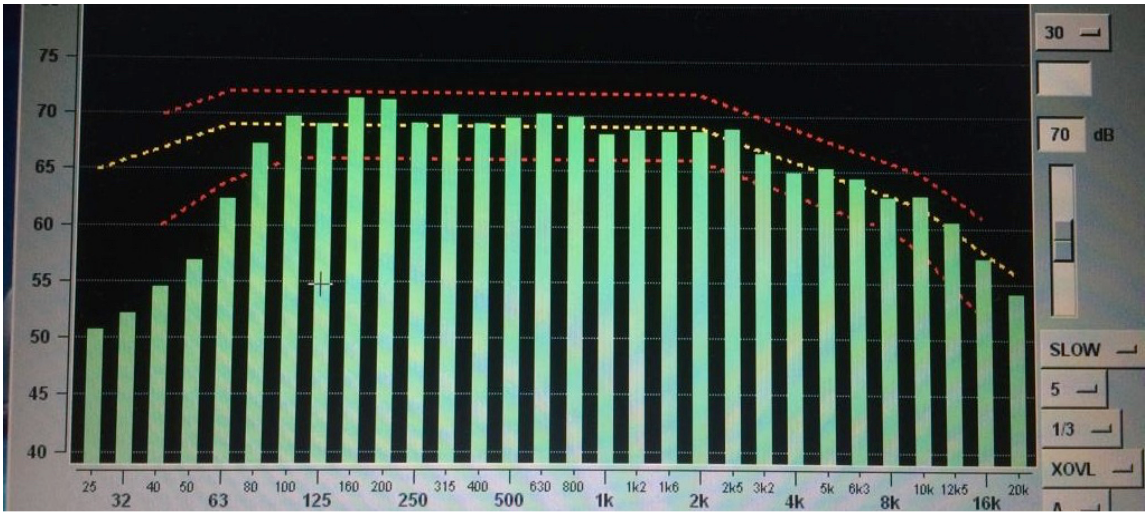
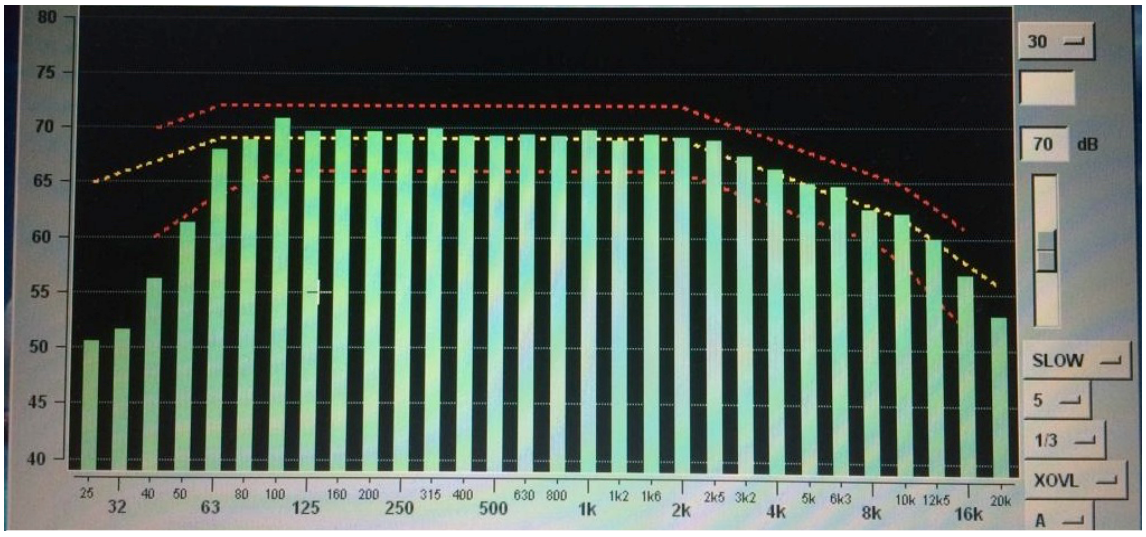
LRS



RRS



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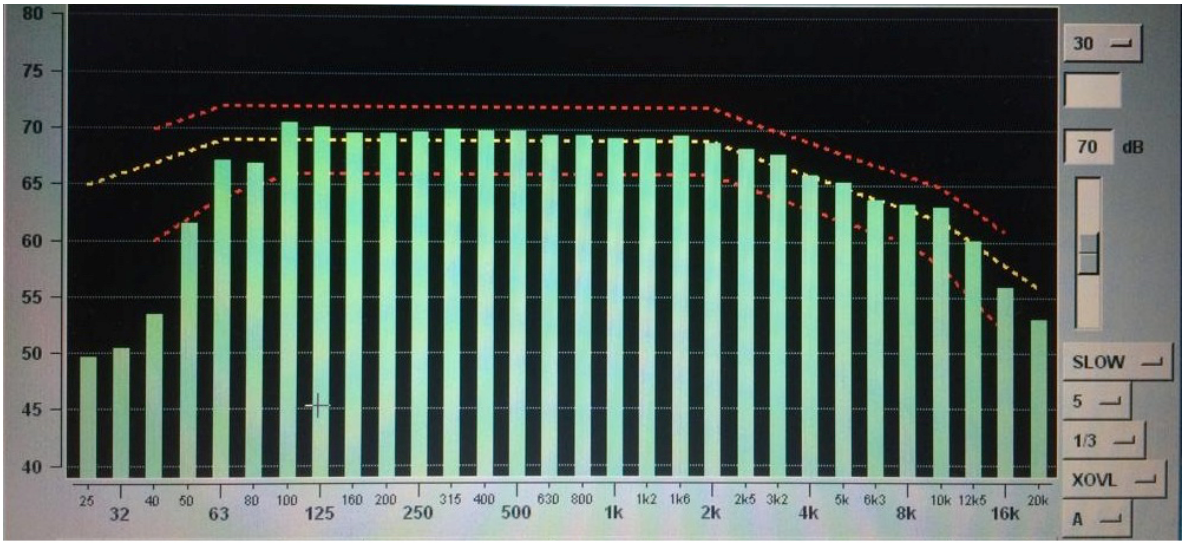
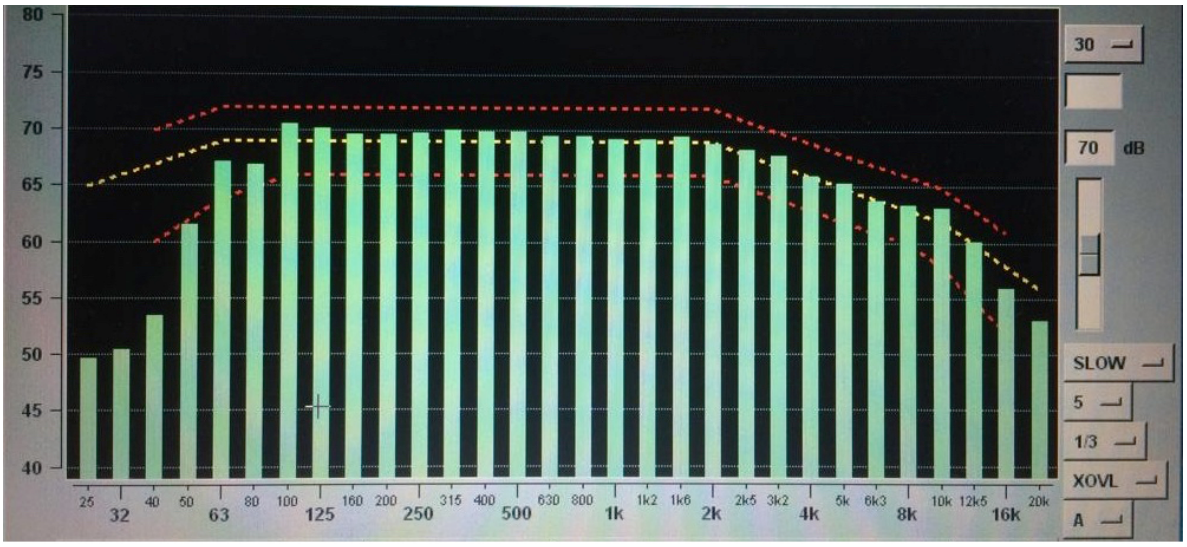
LTF



RTF



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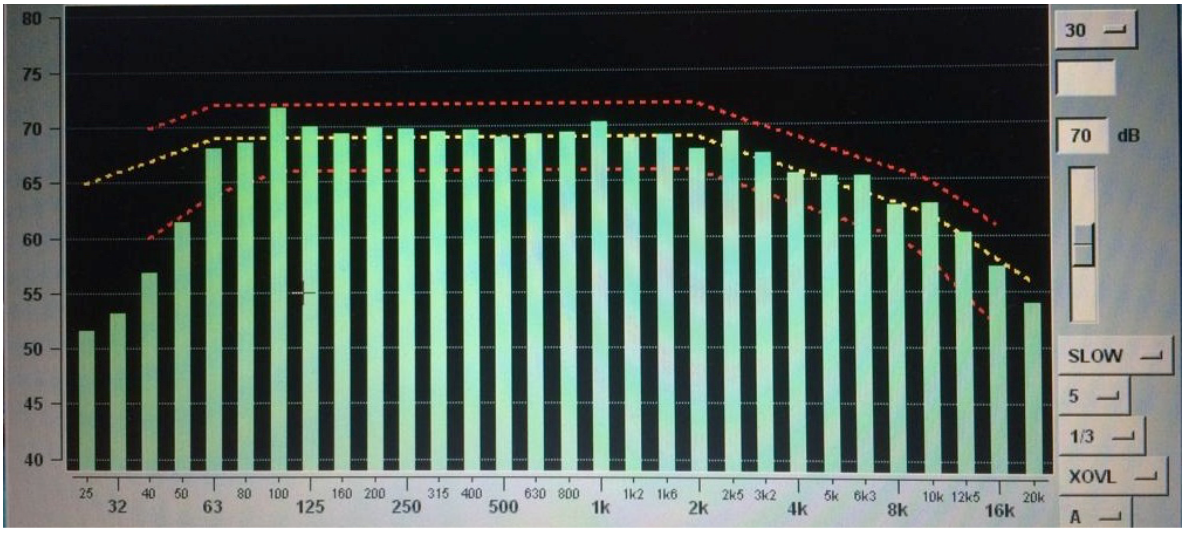
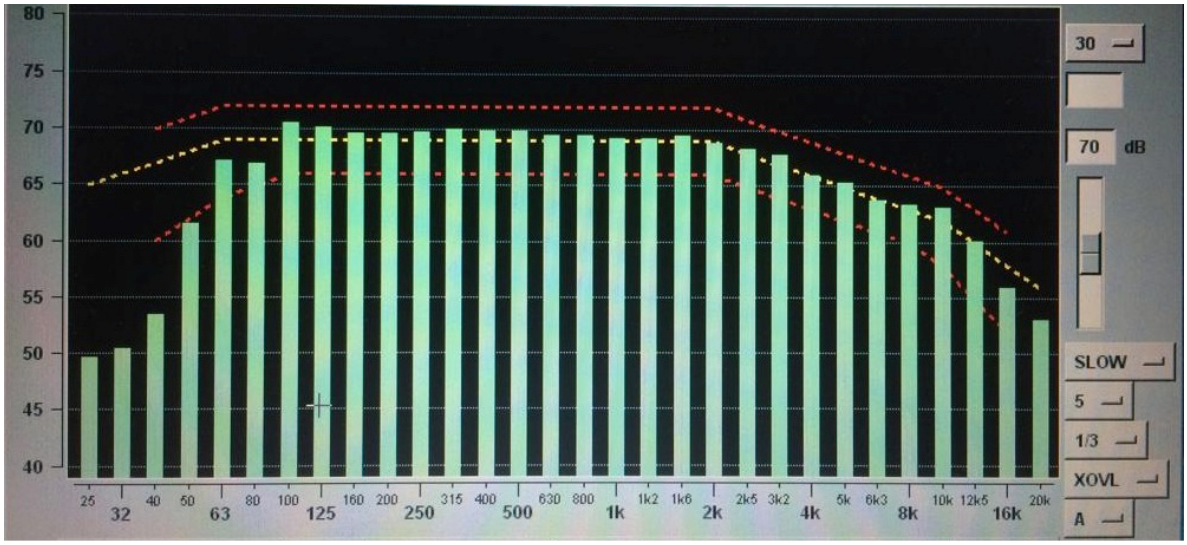
LTR



RTR



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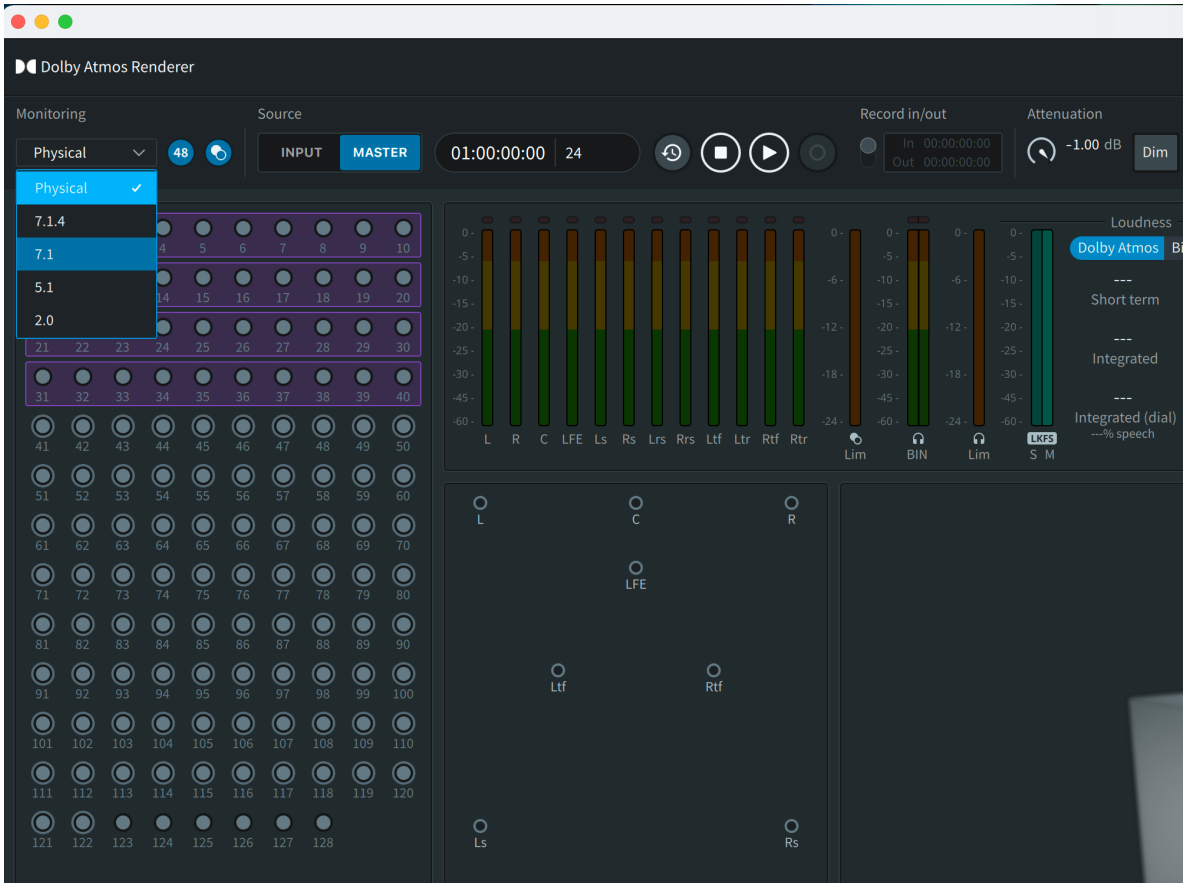
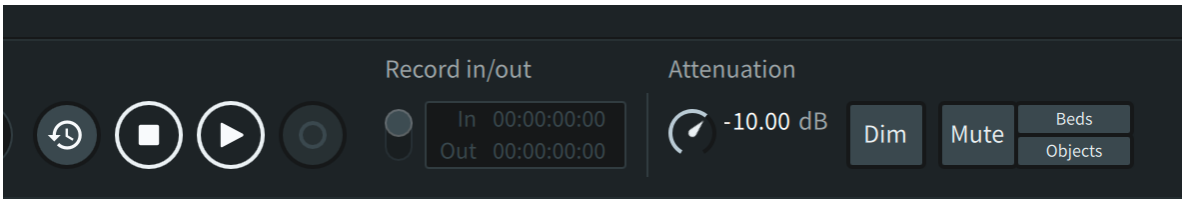
To work in 7.1 or 5.1 it will be used the Mixdown of the Renderer , here the compensation of levels occurs.

Physical = 7.1.4 .



NOTE: In the monitor section of renderer ; when you have -10 DIM you are on 85 SPL dB C.



You have +10 dB of headroom.

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Carolina Anton

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