Dolby Institute

Dolby Atmos Music Delivery Playbook

June 2024

Please note that the information provided is for reference only and does not imply endorsement by Dolby of any particular specification or service.

It is important to consult your chosen distributor for the latest specifications, as some services may not make this information publicly available. We will make every effort to keep these links up to date, but it is recommended to verify that you have current specifications regularly.

This presentation will guide you on technical specs and best practices for delivering Dolby Atmos Music to enabled streaming services, ensuring your music reaches your audience as intended. This document will cover the following:

- Recommended monitoring environments to review your final Dolby Atmos mix

- Synchronization and alignment between your Dolby Atmos and stereo mixes

- Ways to ensure your Dolby Atmos mix adheres to industry-standard loudness levels

- Dolby Atmos master file specifications and metadata requirements

- Ways to ensure seamless transitions between tracks to maintain the intended listening experience

- A compilation of resources from label partners and independent distributors

Monitoring Environments

We recommend listening to your final mixes in two separate environments to ensure translation to consumer devices:

- Headphones - to ensure the Dolby Atmos experience on headphones is as intended.

- 7.1.4 speaker layout (recommended reference configuration)

  - <u>Click here</u> for a list of Dolby Atmos-enabled studios meeting best practices.
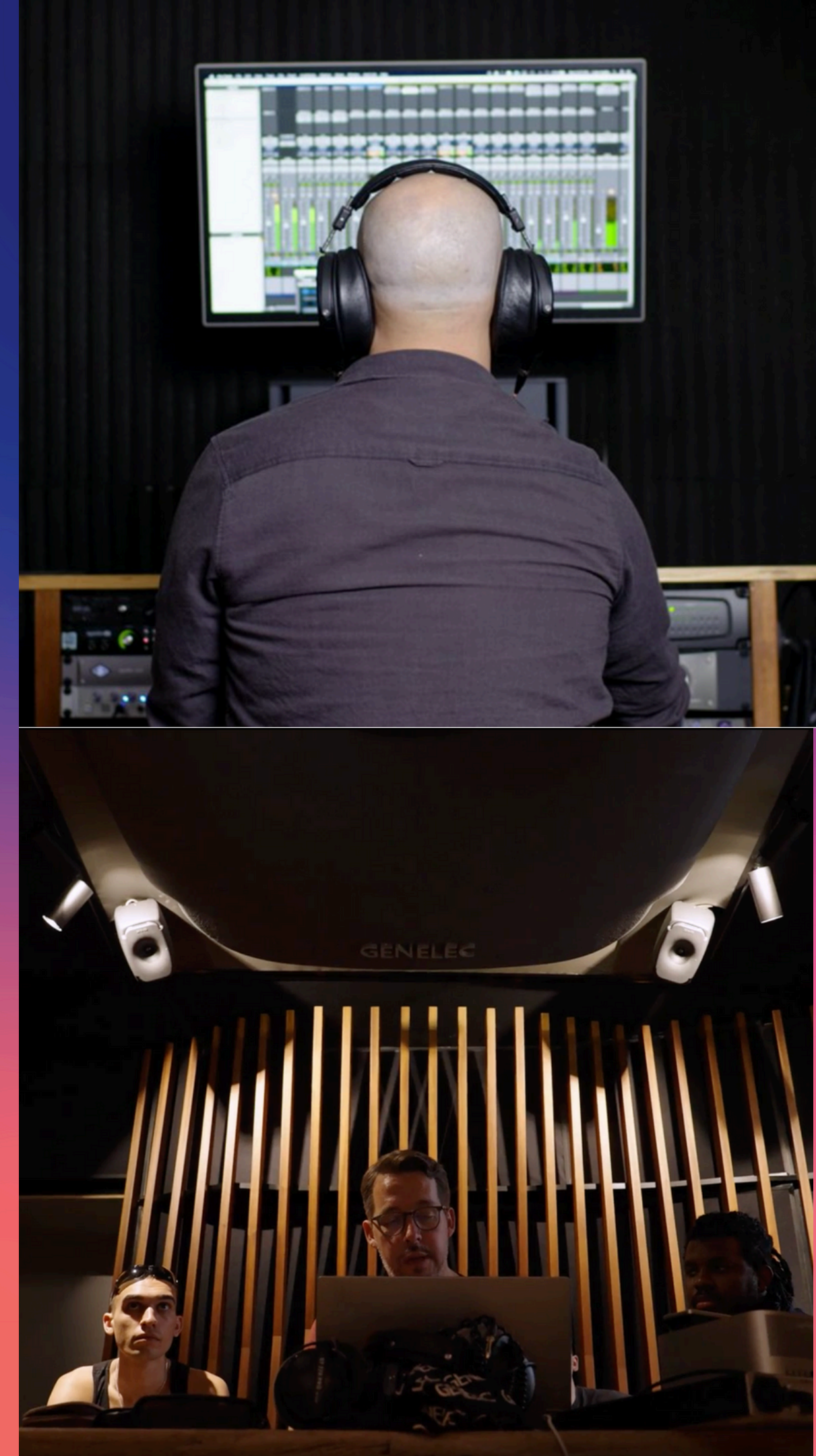
Synchronization and Alignment

- You must conform and sync your Dolby Atmos files with the stereo reference files for the same project.

- All deliverables MUST be created with a timecode frame rate of 24 fps.

- Avoid adding silence at the beginning of your Dolby Atmos mix.

- For individual tracks, silence at the end should be minimal.

Loudness Measurement

- Use the Dolby Atmos Renderer or approved tools to measure loudness.

- Aim for an integrated Dolby Atmos loudness of -18 LKFS for individual tracks (with tolerance).

- Albums: measure each track individually, target the loudest track at -18 LKFS (with tolerance).

- True peak level should not exceed -1 dBTP (with tolerance).

Dolby Atmos Music Master Parameters

- Deliver your Dolby Atmos mix as an ADM BWF file.

- Maximum channels: 128 (10 beds and 118 objects)

- Use 24-bit PCM resolution at 48 kHz sampling rate.

- Consider saving a Dolby Atmos Master File at 96 kHz for archival purposes.

- Consider intentional use of LFE filters at specific frequencies.

- Ensure each bed and object is set to Off, Near, Mid, or Far in the Binaural Render Mode.

Gapless Albums

For seamless playback between tracks:

- Each album MUST be delivered as an individual ADM BWF file.

- Each track SHOULD be exported by specifying IN and Out points from one project that includes the entire album.

- Track boundaries should closely match the stereo master.

- Each track boundary must be no more than half a frame (1,000 samples @48 KHz) earlier or later than the same track boundary in the corresponding stereo deliverable.

- Maintain consistent downmix settings and (if applicable) trim controls.

- There must be no additional silence at the end of each track when compared to the same track from the corresponding stereo deliverable.
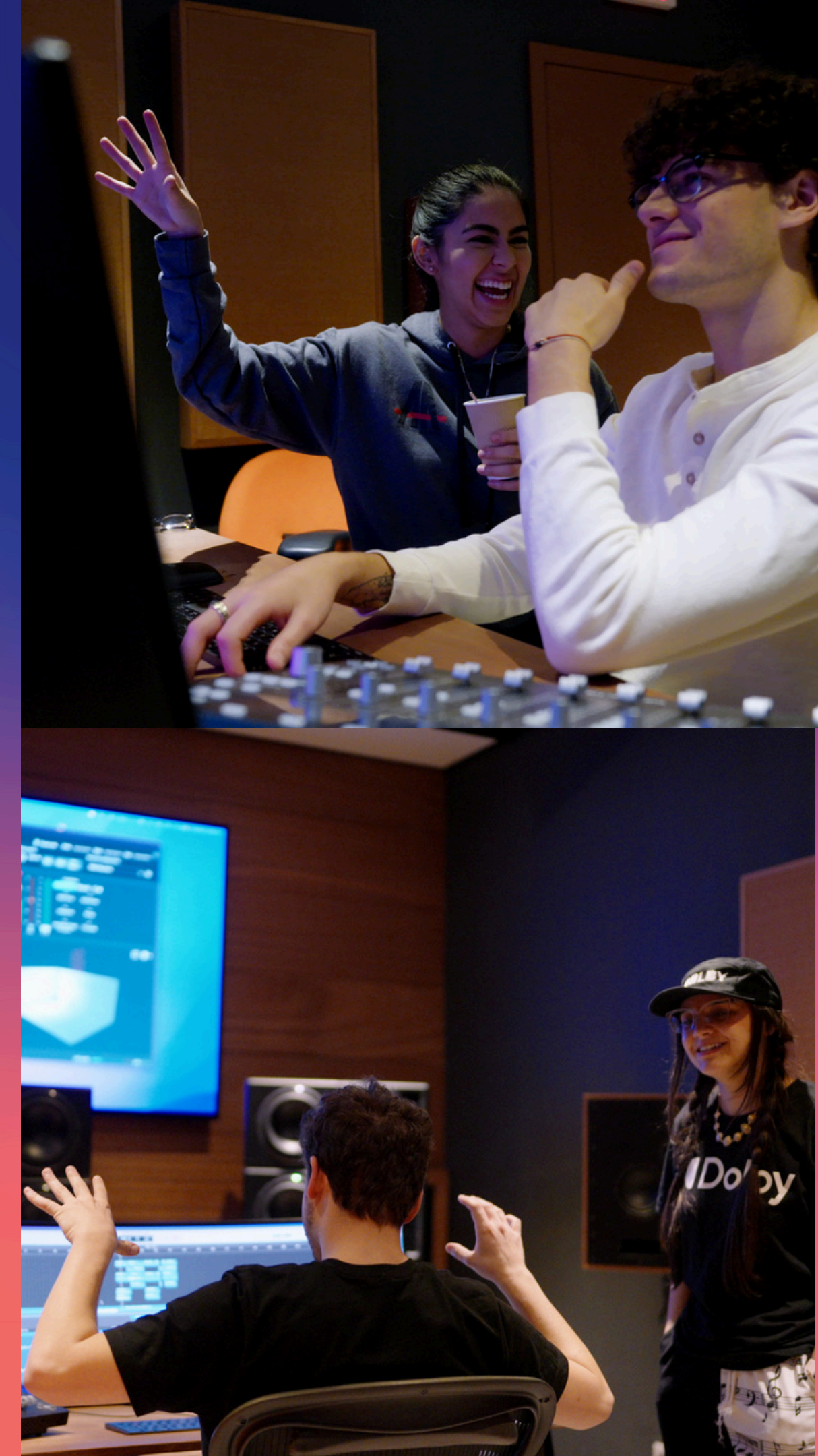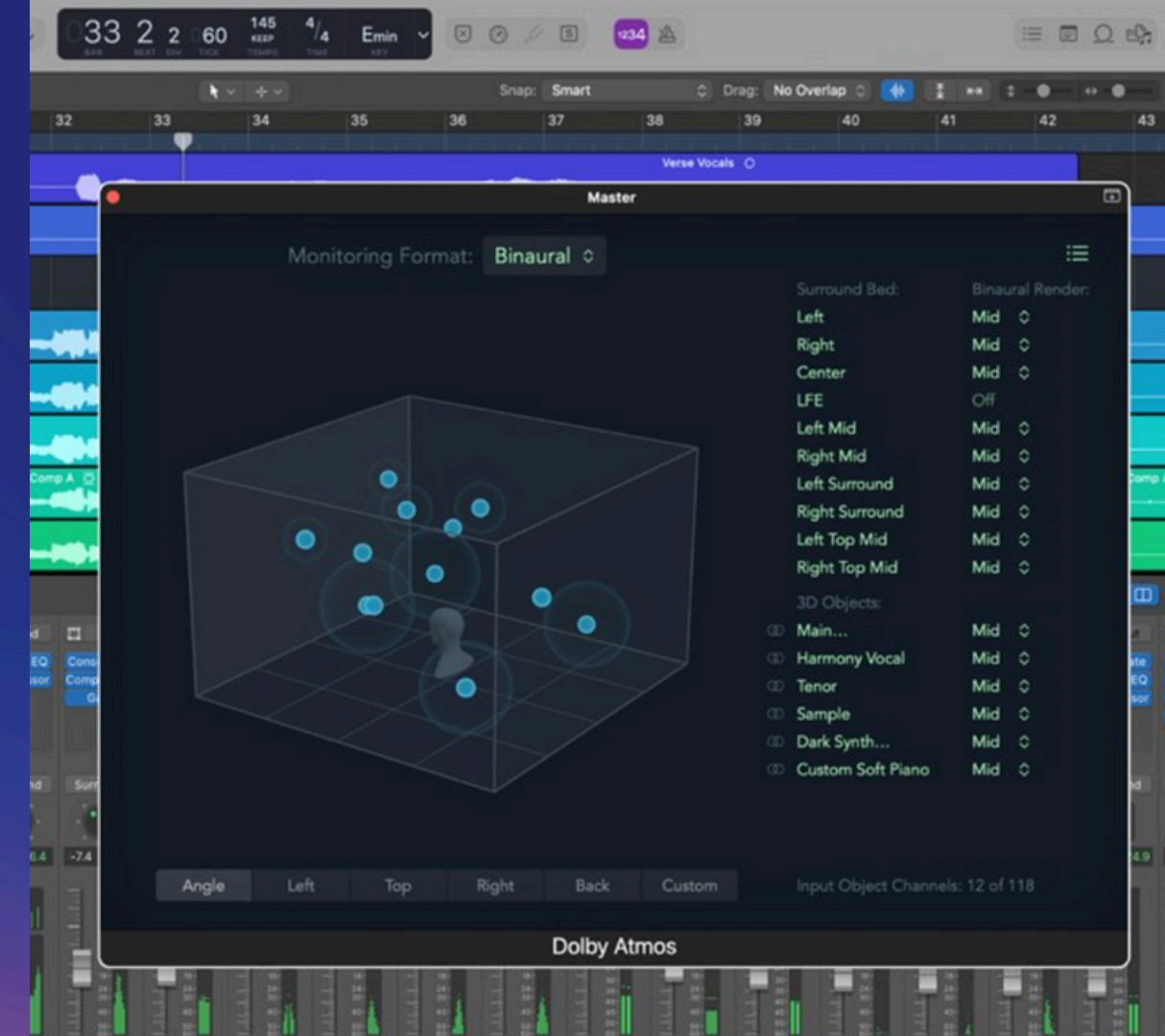
Additional Resources

The landscape for distribution of Dolby Atmos Music is constantly expanding. Delivery specifications can vary by service provider. For more detailed specifications, refer to these guides published by a few of our label and streaming services partners here.

You can find additional resources from a few independent distributors below:
- Tunecore
- DistroKid
- LANDR
- AvidPlay

THANK YOU!

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