ATMOS

AT METROPOLIS STUDIOS

ATMOS, THE BASICS

Dolby Atmos is an immersive audio format which uses object-based, rather than channel-based, delivery enabling one master to scale to any playback system, whether that's a two-channel stereo, a 5.1 channel surround, a fully immersive 7.1.4 (or more!) surround system, and furthermore to create a binaural representation on headphones.

With Dolby Atmos, the artist is able to place each object in a precise 3-dimensional location which will be rendered, in real time during playback, to the appropriate speaker on whatever system is available.

Please feel free to come to the studio anytime for a playback or a 1hr masterclass on the format.

CHALLENGES

We understand that Atmos was primarily introduced for commercial interests rather than for artists which started a race to upload music with little regard for creativity or quality control.

This, coupled with the lack of education regarding the format, its late integration into the production chain, the additional expense incurred by record labels and/or artists, and the absence of consumer satisfaction data, explains why the format hasn't always been well received.

However, despite these challenges, Atmos continued to grow and is very much here to stay. So, if you are compromising on quality or hesitant to work in Atmos due to cost, this guide should help address some of your decisions.
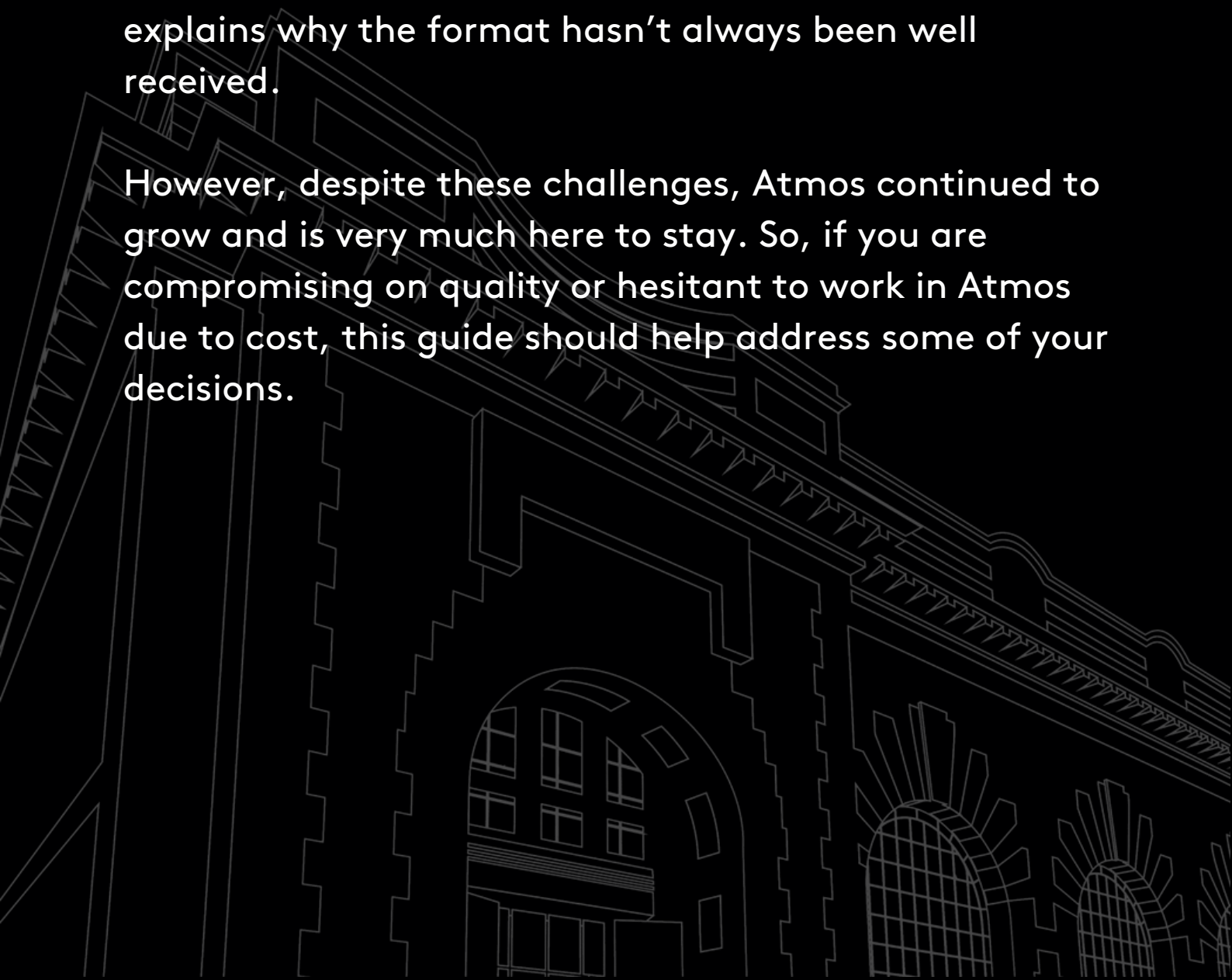
MIXING OR MASTERING?

As with many new technologies, there was plenty of internal scepticism around adopting Dolby Atmos at Metropolis. How would it impact our core stereo mastering work, as well as a sense of deja-vu, having witnessed the slow adoption of 5.1 surround sound for music. However, the rapid pace with which Atmos gained traction compared to 5.1 was undeniable.

As we familiarised ourselves with the technology, it quickly became evident that our mastering team's expertise was uniquely suited to this new format. Spatialising audio for Dolby Atmos occupies a space more similar to mastering than mixing, and our extensive experience in mastering for stereo positions us perfectly to work in immersive too.

Our mastering engineers were also keen to develop new ways of processing audio in immersive formats to replicate the quality enhancements we achieve in stereo, despite the limitations in the available tools. Having developed these workflows our engineers have been generously sharing the ideas outside of the studio, contributing to the overall advancement of immersive audio.

ATMOS @ METROPOLIS

Metropolis Studios opened its mix room in July 2021. In its current configuration the room has 24 Neumann speakers* arrayed at 30° to each other. The studio's comprehensive immersive audio monitoring was designed to cater for all surround formats, including Ambisonics, Dolby Atmos and Sony 360 Reality Audio. It also allows our engineers to render your mixes to the highest possible quality.

*Not all speakers are addressable by all formats. For Dolby Atmos the room is configured as 11.1.8.

At launch, Dolby labelled our studio, the best sounding facility in the country and placed us on their preferred UK supplier list.

TEAM & CREDITS

We have some of the best mastering engineers in the world working across your Atmos content including Matt Colton, Mike Hillier and Stuart Hawkes. If you are looking at longevity for your content and sets of ears that understand the broader landscape of mastered audio across every format and genre, the choice is simple.

Our Atmos credits include: Calvin Harris, Blur, Sam Smith, Chase & Status, Little Simz, RAYE, David Guetta, Ezra Collective, George Ezra, Jungle, Disclosure, Overmono, Slowdive, Maribou State, Jamie XX, Young Fathers, Caity Baser, Jockstrap, Dead or Alive, Yaeji, Bonobo, Slowthai, Geese, Metronomy, Claud, The Libertines, The Cinematic Orchestra, St. Vincent, Sultan & Shepard, Craig David, George Fitzgerald, Kasabian, Shygirl, Gaz Coombes, Jordan Adetunji, Oliver Sim, Nina Nesbitt, Clean Bandit, Olivia Dean, LP Giobbi, Faithless, Ben Howard, Kokoroko, Pip Millet, Sampha, Jess Glynne, Corrine Bailey Rae, James Blake, Mette, Venbee, Yard Act, Dizzee Rascal, Thom Yorke, The Smile, Gorgon City, Elbow, The Rolling Stones, Oasis, Aaron Frazer, Toro Y Moi, Iron Maiden, Wasia Project, Doves, Olly Alexander, Chris Rea, Stereophonics, Hot 8 Brass Band.

SERVICES PROVIDED

Atmos Stem Mixing: our team will take your stereo stems and render them into the best possible sounding Dolby Atmos Masters ready for release to the level your music deserves.

Atmos Multitrack Mixing: when stems aren't available, our engineers can create a new mix to match the intention of the original into the Atmos space. This gives us the ability to work on older catalogues. Fan favourites include "Driving Home For Christmas" by Chris Rea, "You Spin Me Round" by Dead Or Alive and "To Build A Home" by The Cinematic Orchestra.

Atmos Mastering: when the Dolby Atmos mix is being handled by an outside engineer, we offer the opportunity to have our mastering engineers take a last look and process the mix to our release standards.

Atmos Recording: our recording engineers have developed live room techniques designed specifically to capture audio for Dolby Atmos producing incredibly life-like mix experiences. This approach is an ideal method for producing completely unique Dolby Atmos content from the ground up.

DELIVERY SPEC

The more separation in instrumentation and processing you can make available, the more control we have creating your mix. Stems provided must match the stereo reference track. For us to produce an Atmos re-mix / master of your track, please provide:

- 2 versions of the Stereo Guide Mix, one pre Mastering and one Post Mastering
- An indication of BPM of the track either in the filenames or as an attached text file
- All stems for the Atmos mix printed at 48k 24bit WAV minimum, 96k 32bit maximum
- All stems for the Atmos mix printed post fade / post automation / post EQ / post plugins
- As much separation / resolution as possible in the stems. We understand things like Drums might be a group, but where possible send separate guitars / keys / pads / BVs / perc / FX
- Separate FX Stems – rather than send just a wet stem, please send dry stems and print the FX separately. This gives us placement options in the Atmos 360 mix environment. Vocal processing in particular benefits from being split out from the unprocessed signals. The more effects printed as individual stem elements; the more flexibility goes to the mixer for Atmos panning.

BINAURAL REVIEW

We recommend you audition the audio in our Atmos studio, or another Atmos room more local to you. However, where this is not possible, we will provide a binaural fold-down of the mix. Binaural fold-downs mimic the way we hear in the real world, introducing tiny delays and filtering to the signal between the ears to place elements in precise locations. The binaural fold-down must be listened to on headphones, but any headphones will suffice. There is no requirement for any specific headphones or audio player.

DELIVERABLES

BIN.Wav: this is the full resolution binaural version of the Atmos mix, rendered by the Dolby Atmos engine. It will play back happily on ANY headphones and using any software that can play WAVs. No specialist equipment is needed. We recommend you do not play it from speakers, however since the binaural encoding requires headphones to work. We recommend playing it on your best headphones straight from your DAW, with the stereo version lined up next to it on another channel so you can switch quickly between the two (please turn the stereo version down to match the volume of the binaural (approximately-18LUFS) - we can provide this if required). This is the version that will stream on most platforms (Amazon, Tidal, etc), and is the closest binaural representation of the full Atmos mix as intended by the mix engineer.

MP4: this is a lossy encoded version of the mix, rendered by Apple's Spatial engine. It will only play back on an iPhone/iPad through the Music or Files apps. You must have Spatial Audio turned on in settings (or set to automatic if using Apple/Beats headphones). Playing this on any other device will not function as intended. This is the version that will stream on Apple Music. Currently Apple is not importing the binaural settings from the Atmos mix and is using the same distance settings for all elements in the mix.

ADM: this file is for distribution and not listening/auditioning purposes.

ATMOS LIVE BROADCAST

Our Atmos room is also connected to Studio A's Live Room giving us the capacity to record and broadcast to DSP's in Atmos.

Whilst this workflow has not penetrated the market, we successfully delivered a live immersive performance with Hikaru Utada from Metropolis to a huge audience in Japan as well as 90 minute live showcase featuring Lola Young connecting Metropolis, Brighton Dome and the O2 together as part of a 5G R&D programme.

The elevation in audio distributed to fans at home in comparison to a live stereo stream, is incomparable. In due course, live immersive streams may completely change the landscape of how music fans consume concerts / live performances at home.