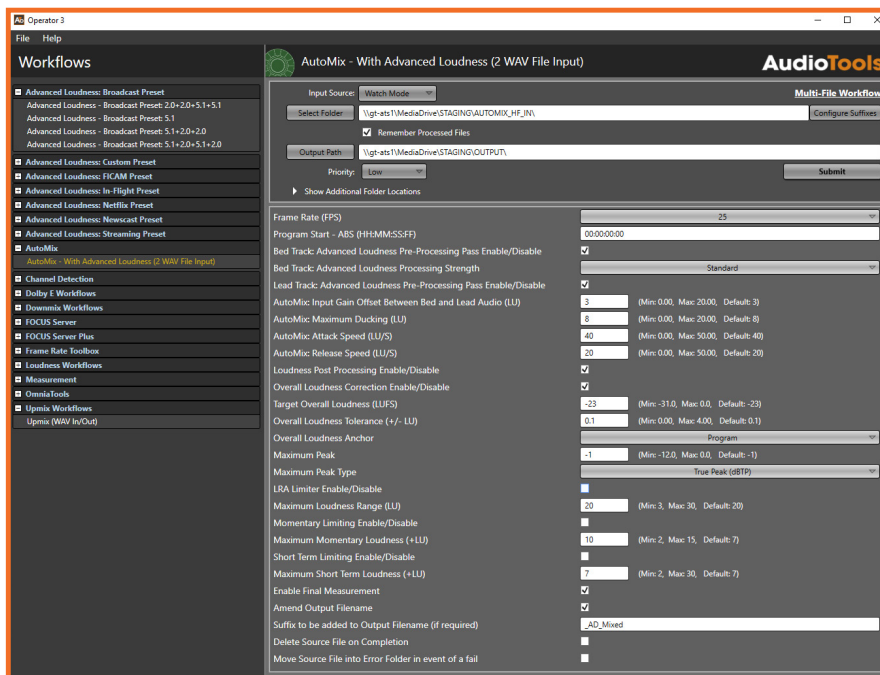# Case Study

AudioTools® Server AutoMix

Canadian Media Company Uses AudioTools® Server's New AutoMix Module to Save Time and Money When Adding Audio Description Tracks to Thousands of Hours of Content

Overview

In 2018, a large Canadian media conglomerate whose operations include television broadcasting and production, radio broadcasting, digital media, and Internet properties began searching for an advanced mixing solution that addressed new Canadian broadcast regulations that mandated broadcasters provide Audio Description for all prime time content from September 2019 onward. By describing images and actions onscreen using voiceover during natural pauses in the content's original dialog, Audio Description makes visual media, such as TV and movie content, more accessible to people who are blind or visually impaired.

The Client:
Large Canadian media conglomerate whose operations include television broadcasting and production, radio broadcasting, digital media, and Internet properties.

The Problem:
New Canadian broadcast regulations require Audio Descriptions for all prime time content from September 2019 onward. Audio Descriptions need to be added to thousands of hours of content on an ongoing basis, requiring a new automated approach over the traditional use of sound mixing, which is expensive and time-consuming.

The Solution:
Having devised a proprietary way to automate the production of the Described Voice track, the media company turned to Minnetonka AudioTools Server from Telos Alliance for an automated yet flexible method for mixing Described Voice tracks with original stereo audio to create complete Audio Description tracks that met the client's high standards of performance.

The new requirement would mean that thousands of hours of content would need the Audio Description added to the original audio mix, which is normally done manually using a sound mixer in a studio—an approach that is both expensive and time-consuming. The media company, therefore, required a new, more sophisticated approach to tackle this new and ongoing audio workload.

Automation Makes Light Work of Loads of Content

Automation was the only solution that could meet this challenge head-on. Having devised a proprietary way to automate the creation of the Audio Description voiceover track, the company now needed a method for mixing that track into the original stereo audio, in a natural and pleasing way. They tried a few options to reach this goal but were not happy with the results.

"The main issue was that these other solutions were generally only capable of applying an overall level adjustment between the two input audio tracks (the Audio Description voiceover and the original mix) and were not able to react to changes in the mix," says Graham Tudball, Sales and Support Engineer for Telos Alliance and a member of the software development team who writes workflows for AudioTools Server. "For example, if you applied an overall level adjustment that provided a good balance between the voiceover and the original audio during a dialog-driven scene, then you would most likely find that the voiceover track would become inaudible during loud action scenes. Similarly, if you lined up the voiceover and original audio during a loud sequence, then the voiceover would be too loud and

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overpowering during quieter sections. A more intelligent solution was therefore required that would adapt the mix relative to the audio of the two input tracks."

Enter AudioTools Server—state-of-the-art Enterprise software that allows media companies to automate audio workflows using a modular approach where they purchase only what they need for the ultimate in flexibility. At the time the client came to Telos Alliance with the request, Telos Alliance engineers were already working on auto-ducking technology for a different product line. They adapted that technology into a module for AudioTools Server, and AutoMix was born.

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"Where AutoMix has the edge over more basic mixing solutions is that it can reduce (fade down) the level of the underlying original mix whenever voiceover is present, and then bring up (fade up) the levels again when the voiceover finishes," says Graham. "This means that during sections of loud audio in the original mix, the described voiceover is still clearly audible. AutoMix allows for control of the fade settings so users can tailor the mix as they want it."

The AudioTools AutoMix module is designed to intelligently mix two audio tracks. The two audio tracks are designated as either "Lead" or "Bed." The Lead audio typically is a dialog-only track, such as the raw Audio Description voiceover track. The Bed track is typically the original audio mix that the Lead audio is to be mixed over.

With AutoMix there's no need for any control tracks, as the module will analyze the input audio and automatically reduce the Bed track's audio levels whenever audio is present in the Lead track, bringing them back up when it has finished. "This automated process is considerably faster than when done manually in real-time," Graham notes.

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While the most common use case for AutoMix is for the creation of Audio Descriptive mixes, the technology could just as easily apply to other situations where users are mixing a voiceover track over another audio track, such as in the creation of promos or trailers.

"AudioTools Server has made this media company the best-sounding broadcaster in the country, and the client's Head of Engineering has given specific examples of testing tracks with AudioTools Server and other competitive products. AudioTools is the only one able to reproduce certain sounds," says Tyler Everitt of Telos Alliance dealer Pippin Technical Service. "The suite of tools available in AudioTools enables a broadcaster to not only tailor his or her audio with a granularity not seen before, but does it in an automated way, with a 'set it and forget it' approach, enabling custom audio settings for each of a broadcasters' outputs – OTA, streaming, mobile, and so on. Each has its own set of priorities."

Pre-Processing Built In for Consistent Results

To make this a complete end-to-end solution for the client, Minnetonka combined the AutoMix process with Linear Acoustics' APTO® psychoacoustic-based loudness adjustment, adding AudioTools Server's Advanced Loudness Adaptation processing technology as well, all of which gives users the ability to pre-process the audio before mixing. When used in this way, the two input tracks' audio levels are analyzed prior to the mixing step and are optimally adapted where necessary to provide the best quality mix.

"If we pre-process the audio before it goes into AutoMix, what feeds the AutoMix is balanced. We check the dynamics of Bed audio automatically and use APTO® to sculpt the sound so it is a more natural-sounding, nicely leveled mix," says Graham. "You almost wouldn't notice that the Audio Description voiceover is part of the mix, it's so natural. It's never jarring or inaudible, and this has been a big driver in the success of the AutoMix module."

> "…countless hours of content through the workflow and testifies that they have never had a complaint from users about the quality of the mix."

Where previous solutions had been rejected, the AutoMix workflow solution that Telos Alliance presented to the client was quickly approved by their key audio people and has been a cornerstone of their Audio Description workflow ever since. The client has processed countless hours of content through the workflow and testifies that they have never had a complaint from users about the quality of the mix.

"We are continually looking at how we can make our workflow processes smarter, and we love how Telos Alliance can take our concepts and flesh them out into a workable solution. The flexibility and adaptability of Telos Alliance and the AudioTools Server product really set it apart," says the client."It doesn't matter what audio you feed AudioTools Server, you get consistently good results every time."

The AutoMix Workflow

1. The original audio mix and the Audio Description voiceover track are pre-processed for consistent and compliant levels before entering AutoMix.

2. The adjusted audio is then processed using AutoMix's unique, customizable, and flexible auto-ducking technology for natural-sounding Audio Description tracks.

3. Post-Processing is available for international loudness compliance.

Ready to Save Time and Money By Automating Your Media Workflows?

Contact Larry Deeds, Senior Director of Enterprise Software Sales | Global, at larry.deeds@telosalliance.com today to learn more about how AudioTools Server can save you time, money, and human resources.

If you'd like to discuss your particular application and need with Larry, please set up a meeting time here: https://calendly.com/larry-deeds/30min.