AudioTools[®] Server

Quality-First Audio Automation

AudioTools Server is a collection of enterprise-ready audio solutions designed to add file-based expertise to automated environments. The AudioTools Server family represents decades of expertise encapsulated in flexible, focused packages of audio specialization

> Loudness Measurement

III III Alliance

AudioTools® Server

Quality-First File-Based Audio Automation







File-Based Workflow and Next Generation Audio Support

Workflow Name

Source

Quality-First Audio Automation

AudioTools Server automates the most sophisticated audio tasks and offers a wide variety of processing, specifically created for use in cable, satellite, OTT, terrestrial and IPTV, radio, and post-production facilities. As a pure software platform running on commodity hardware, including VM or cloud deployment, AudioTools Server is flexible and customizable, allowing for new workflows as requirements inevitably change.

- State-of-the-art audio processing
- Customized, efficient file-based workflows
- Unrivaled loudness tools
- Compliance to broadcast standards
- Interoperability with major environments
- Modular, scalable platform

Leader in Loudness

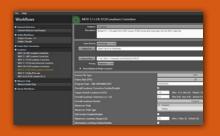
Loudness Control is a significant use case for AudioTools Server, using Linear Acoustic[®] APTO[®] loudness processing. Our loudness-normalization processes fully preserve the existing audio and only apply a gain change combined with optional peak limiting. Other use cases require changing the dynamic range and more complex parameters of the audio content, such as dialog intelligibility. Advanced Loudness Adaptation is a collection of intelligent loudness profiles designed to adapt a theatrical audio mix for broadcast to create the best possible audio experience for all modern platforms such as OTT/web, mobile/ handheld, and VOD/SVOD.

Modular Design

Modular architecture allows AudioTools Server to always be state-of-the-art, but the real power of this approach is using workflows to combine module functions in a sequential or highly conditional profile. AudioTools Server provides a modern REST API to connect the system to any industry-standard Workflow Automation or Media Asset Management system. AudioTools Server is also a VST plug-in host, enabling third-party plug-ins as part of an overall AudioTools Server workflow.

File-Based Workflow and Next Generation Audio Support

With the requirements for broadcasters' talent and editorial staff getting more and more difficult, automating as many file-based audio processes as possible makes good business sense. Broadcasters will need to support Dolby Atmos® and MPEG-H content—as well as your existing deliverables requirements—but tools that can do it all are scarce. AudioTools Server meets broadcasters' existing needs to automate workflows for file-based loudness management, encoding/decoding, QC, and more, as well as easily adding Next Generation Audio support to those workflows.



Loudness Measurement & Adjustment Automate Immersive Audio Workflows

Workflow Name

Source

Use Cases

Loudness Measurement & Adjustment

• State-of-the-art loudness control based on international standards and practices. Advanced Loudness Adaptation profiles for improved and compliant dialog intelligibility in high-dynamic-range content.

Audio Adaptation

• Automated adaptation of audio content to specific output specifications, including upmix, downmix, channel management, and frame-rate conversion.

Automate Immersive Audio Workflows

 Upmix audio to up to 9.1.6 channel configuration, and automate Dolby Atmos[®] encoding or MPEG-H pre-processing tasks.

Dolby Automation

• Automated Dolby encoding and decoding, including metadata handling. AudioTools Server includes Dolby E quality control, with optional correction.

Quality Control

• Audio-specific quality control of audio files or container formats, including channel assignment detection and correlation check

Enhanced Workflows and License Management

AudioTools Workflow Control is the command and control for AudioTools Server that enables standalone operation along with support for threaded multiple concurrent processes, load-balancing, and dynamic reconfiguration of workflows on the fly. AudioTools Server can deploy floating licenses through a license server, offering a scalable system for small businesses or enterprise-class facilities.

AudioTools Server is internally driven from tailored XML profiles. An operator can call up preset workflows easily and edit them through the AudioTools Operator App, while Queue Control provides an overview with detailed access to all running processes.

Contact us at solutions@telosalliance.com for tailored AudioTools Server Audio Processing



AudioTools WorkflowEditor makes it easy to configure AudioTools Server workflows

Workflow Name

Source

Telos Alliance

AudioTools WorkflowEditor

AudioTools WorkflowEditor is a flexible tool for setting up and configuring AudioTools Server workflows. The software comes preinstalled with a comprehensive selection of over 1000+ workflow templates, covering most common workflow types and featuring all aspects of AudioTools Server processing. Each template is displayed and is configurable through the software's graphical interface, making it fast and easy for operators to conform workflows to meet their requirements. Preset management tools allow you to save and recall your conformed workflows in a user-defined library for quick and simple access. Users can submit jobs and watchfolders to the server for processing directly from the WorkflowEditor, or export workflows for submission via third-party tools or web services integration.

ATSWorkflowEditor		
File Workflow Help		
Workflows	Ö.	Combined Upmix-Downmix (With Loudness Correction): 4 Progr
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WAV 2.0 - R128 With Advanced Loudness Pro	ocessing AudioTools
Input Source: Watch Mode	
Select Folder \\gt-ats1\MediaDrive\STAGING\INPUT\	
Remember Processed Files	
Output Path //gt-ats1/MediaDrive\STAGING\OUTPUT\	
Priority: Low	Submit
Show Additional Folder Locations	
P show Additional Folder Locations	
Source File Type	WAV / AIFF 🗢
Frame Rate (FPS)	25 💎
Program Start - ABS (HH:MM:SS:FF)	00:00:00:00
Overall Loudness Correction Enable/Disable	2
Target Overall Loudness (LUFS)	-23 (Min: -31.0, Max: 0.0, Default: -23)
Overall Loudness Tolerance (+/- LU)	0.1 (Min: 0.00, Max 4.00, Default: 0.1)
Overall Loudness Anchor	Program v.
Maximum Peak	-1 (Min: -12.0, Max: 0.0, Default: -1)
Maximum Peak Type	True Peak (dBTP) 🤝
Advanced Loudness Enable/Disable	U
Advanced Loudness Processing Strength	Standard 🗢
User Defined LRA Limiter Enable/Disable	
User Defined Maximum Loudness Range (LU)	20 (Min: 3, Max: 30, Default: 20)
User Defined Momentary Limiting Enable/Disable	
User Defined Maximum Momentary Loudness (+LU)	10 (Min: 2, Max: 15, Default: 10)
User Defined Short Term Limiting Enable/Disable	
User Defined Maximum Short Term Loudness (+LU)	7 (Min: 2, Max: 30, Default: 7)
Enable Final Measurement	2
Force Measurement Pass to always include Dialog	
Minimum Dialog Threshold (%) - If Overall Anchor is Dialog	5 (Min: 0, Max: 100, Default: 5)

AudioTools Operator

The AudioTools Operator application is ideal for simple manual operations and can be used in conjunction with, or instead of, any other method used to drive AudioTools Server. AudioTools Operator enables direct editing of workflow parameters from within the user interface, allowing easy manipulation of targets and other functions prior to submitting a job. The exposed parameters are entirely customizable, according to individual needs and requirements. AudioTools Operator provides a flexible and user-friendly approach to complete any adaptation task.

Example implementation: Advanced Loudness Adaptation

Dolby Atmos Encoder: 9.1.6 WAV to EAC3	AudioTool			
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Dolby Abmost Le,Ro Sumoand Channel Downesia	0.107 (-3.008)			
	0.307 / 3.668			

AudioTools Operator is ideal for simple, manual operations

Norkflow Name

Source

AudioTools WebClient

The AudioTools WebClient allows users to monitor AudioTools Server workflows and jobs in any browser, on any device with network access to the AudioTools Server system, without requiring Administrator's access. The WebClient shows the state of all running processes, measurement results as configured in the workflows, and execution log entries. The WebClient can also be used to submit new workflows to the server, or to stop executing workflows.

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Solo V	AL V	All Completed Stopped	Ermon	HotFo	ser Workflow	
Workflo		Source	State	Current Step	% Step	96 Total
WAV 2.0 - R128 With Adva	nced Loudness Processing	Vigit-als/TWediaDrive/STAGINO/NPUTV	RUNNING	MONITORING HOT FOLDER	0.00%	0.00%
WAV 2.0 - R128 With Adva	nced Loudness Processing	HistoryOfRockAndRoll_doc_prod_ep01_en20.wav	RUNNING	[1-2]_LOUDNESS_PROCESSING	10.07%	34,45%
WAV 2.0 - R128 With Adva	nced Loudness Processing	AroundTheWorldIn60Fruits_doc_prod_en20.wav	COMPLETED	COMPLETED	100.00%	100.00%
WW 2.0 - R128 With Adva	nced Loudness Processing	HistoryOfRockAndRoll_doc_prod_ep02_en20.wav			0.00%	0.00%

AudioTools FOCUS for Loudness Control

AudioTools FOCUS is an easy-to-use application designed to measure and adjust the loudness levels of audio or video assets. AudioTools FOCUS handles the complexity of loudness management through predefined master presets, conforming to every loudness standard. You can use AudioTools FOCUS with AudioTools Server. It is also available in several sizes for use as a standalone product.

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AudioTools Server fits into any environment, on any integration level

Workflow Name

Source

Platforms

AudioTools Server is platform-agnostic. You can deploy it on physical servers on-premise, in virtual environments, or as true cloud instances, such as on Amazon AWS. It can integrate with other cloud-based systems or operate on its own, accessing cloud storage like S3 buckets.

Integration

AudioTools Server supports manual job submission, hot folders, and a full web services API, guaranteeing that it fits into any environment, on any integration level.

Integration Partners

Arvato, Aspera, Aveco, AVID, Cinnafilm, Dalet, Dolby, Evertz, Geminisoft, Harmonic, Hiscale, IBM, Kantar Media / Civolution, Root 6, Sony, Tedial, Telestream, Vector 3, VIZRT, and others

Formats

Linear PCM Audio: AIFF, WAV, RF64

Codecs: Dolby E, Dolby Digital, Dolby Digital Plus (with Atmos®), Dolby Pro Logic II, mp2, mp3, MPEG-4, HE-AAC, AAC Container: MXF, QuickTime™, LXF, GXF, selected Transport Streams

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