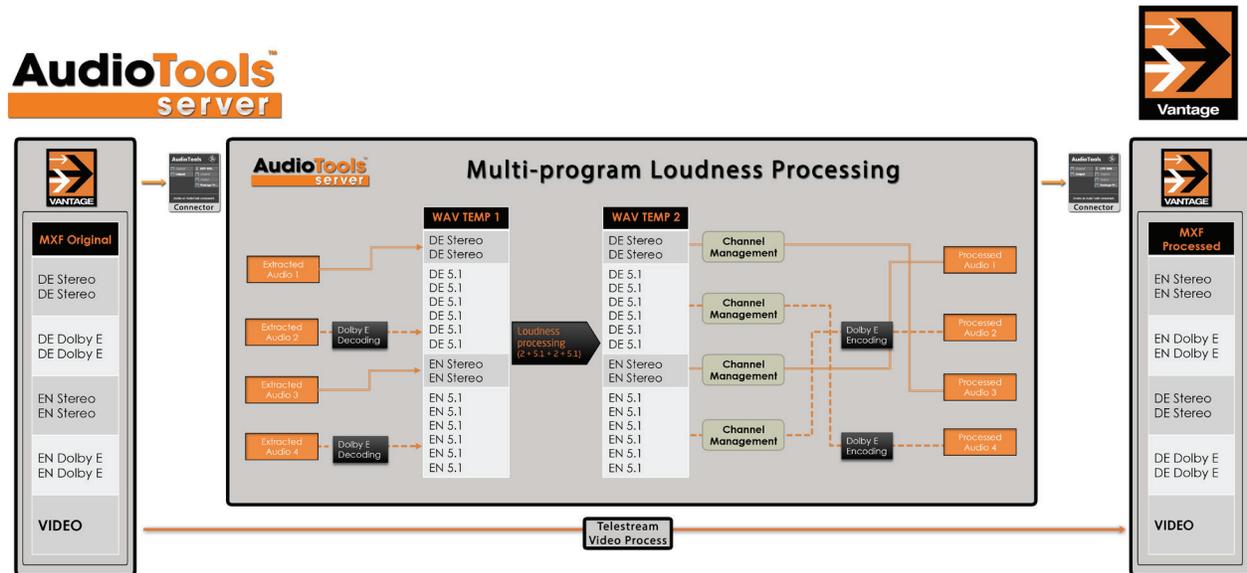


Minnetonka and Vantage

Partner Solution



Unified advanced audio processing solution for loudness control, Dolby & QC

In response to public opinion, governments worldwide have passed legislation mandating audio loudness control. Telestream now offers a comprehensive loudness control option within its enterprise-class, server-based Vantage video workflow design and automation framework, using AudioTools Server.

AudioTools Connector for Telestream Vantage

The Minnetonka audio software AudioTools Connector integrates within the Vantage file-based framework to support fundamental loudness control workflows and custom, predefined workflows for broadcasters. The AudioTools Connector allows Vantage to drive audio processing workflows and jobs directly from the Vantage workflow designer.

Comprehensive Loudness Control

Loudness control requirements vary from country to country. By combining AudioTools Server with Telestream Vantage, broadcasters and content producers can now adjust additional loudness parameters including adjustment of theatrical content for broadcast and VOD/OTT. ATS also provides processing for controlling dynamics, enhancing dialogue intelligibility, or automating all of the above using conditional automation. Complete R 128, A/85, and all other Loudness Control along with Maximum Short Term and Maximum Momentary Limiting are available, as well as archiving of before/after loudness measurements. AudioTools Server measures, and simultaneously adjusts momentary, short term and program loudness, along with loudness range and maximum true peak levels.

- Supports EBU R 128, CALM Act, DPP and other international loudness specifications
- Best in class, comprehensive, standards-based measurement, processing & control of loudness
- Adaptation of highly dynamic or theatrical content for broadcast
- Focused functionality for processing only audio
- Easy integration with existing automated Telestream video workflows
- Faster than real time operation
- Flexible, extensible XML job-ready automation
- Handles multiple delivery formats, including PCM & Dolby E
- Flexible container handling of MXF and QuickTime files by Vantage sending audio only, or pointing AudioTools Server to the file for extraction and wrapping
- Logging & reporting insures documented compliance

How it Works

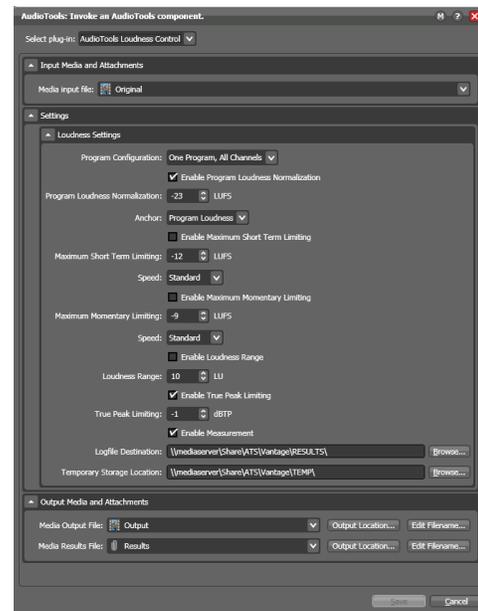
One Connector, Two Agents

AudioTools Connector for Vantage offers two ways of operating ATS directly from within Vantage Workflow Designer, both available from a drop down menu:

- Using the Loudness Agent, the most typical loudness processes, including hitting multiple target parameters using an iterative processing pass, are available from a simple user interface. Users select Loudness Adjustment Types and enter target requirements for various loudness parameters. These parameters are used to configure a predefined master workflow profile using the Loudness Measurement and Loudness Adjustment modules on AudioTools Server.
- Using the Generic Agent without a user interface, the user can choose any custom predefined AudioTools Server workflow from AudioTools Server. This allows for every possible profile on AudioTools Server to be used from within Vantage. An AudioTools Server consultant can assist customers with translating their requirements into individual custom workflows. Contact Minnetonka for details.

Loudness and More

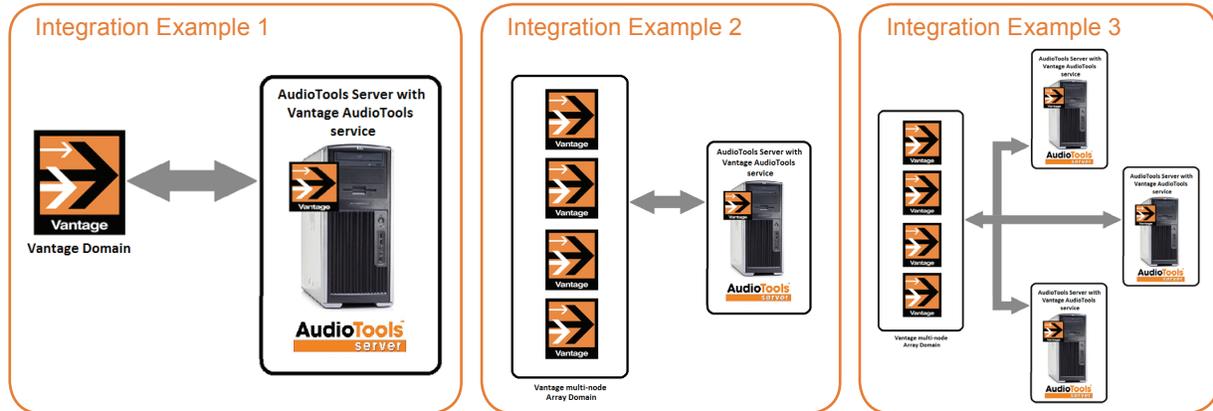
By combining Vantage with AudioTools Server, best in class processing for audio and video are now possible. Custom workflows can call upon ATS' entire repertoire and can be as complex and specific as required.



Simple User Interface

- **Dolby E Automation:** Automated Dolby E encoding and decoding. Dolby E quality control, including correction and metadata handling.
- **Audio Conforming:** Automated adaptation of audio content to specific output specifications, including Movie Adaptation and standards based loudness compliance.
- **Quality Control:** Audio specific quality control of pure audio or container formats, including channel assignment detection and correlation check.
- **Other use cases:** Other use cases include automated channel assignment detection based on the audio content, pitch shift & time twist, a frame rate toolbox, channel management, various watermarking technologies, audio restoration and many more. Unlimited individual profiles are possible. AudioTools Server also supports industry standard external audio plug-ins. These plug-ins (VST) can be used in our flexible XML scripting language.

If you have purchased the Vantage Connector, an AudioTools Server configuration is available from an authorized AudioTools Server sales partner. For more information on AudioTools Server, please visit: <http://www.minnetonkaaudio.com/>



Integration Example 1: A single node AudioTools Server and single node Telestream Vantage system

Integration Example 2: Multiple Vantage node Array sending jobs and workflows to a single AudioTools Server system.

Integration Example 3: Multiple Vantage node Array load balancing jobs and workflows to multiple AudioTools Server systems.

About the Partner and Their Product

Minnetonka is an award-winning solutions provider for motion picture, video, broadcast, game, and optical disc production. Minnetonka Audio Software creates essential technology for the world's top media professionals. Its revolutionary AudioTools Server is the file-based software alternative to hardware program optimizers, bringing expert audio automation to existing media production infrastructures. Their AudioTools Server and SurCode product lines support the full array of audio codecs, file types and standards for CD, DVD, Blu-ray™, broadcast, and digital television.

The company is a leading provider of OEM audio solutions as well as file-based QC and loudness control. Spanning more than two decades of operation, the Minnetonka, MN-based company has a subsidiary in Germany and an international network of distributors and channel partners who share its commitment to quality and service.

About Telestream and Vantage

Telestream provides world-class live and on-demand digital video tools and workflow solutions that allow consumers and businesses to transform video on the desktop and across the enterprise. Many of the world's most demanding media and entertainment companies – as well as a growing number of users in a broad range of business environments – rely on Telestream products to streamline operations, reach broader audiences and generate more revenue from their media. Telestream products span the entire digital media lifecycle, including video capture and ingest; live and on-demand encoding and transcoding; captioning; playback and inspection, delivery, and live streaming; as well as automation and orchestration of the entire workflow.

For more information:

Visit Minnetonka at: www.minnetonkaaudio.com

Visit Telestream at: www.telestream.net