



Enterprise Class Audio Control and Metering

AERO.soft

Unlimited Audio Control

The screenshot displays the AERO.soft software interface, which is used for audio control and metering. It features several key components:

- Meters:** A row of six meters for 'DRC - Program 1' showing 'Input', 'AGC', 'Multiband', 'Final Limiters', 'Output', and 'DRC'. To the right, an 'AC3 Confidence Decode' section shows 'Input', 'RF', and 'Line' meters.
- Control Panels:** A top row of buttons for 'Instance 1', 'Instance 2', 'System', 'Input', 'UPMAX II Program 1', and 'DRC Program 1'. Below this is a second row of buttons for 'Load Preset', 'Save Preset', 'Downward Exp', 'Input AGC', 'Wideband AGC 1', 'Parametric Equalizer', and 'Multiband'. A third row includes 'MB Atk / Rel', 'MB Thresholds', 'Wideband AGC 2', 'Wideband AGC 3', 'Band Mix', 'Bypass', 'Carbon', and 'Disp'.
- Configuration Area:** A section at the bottom with three buttons: 'Current Preset: Reference Settings (M)', 'Recall Backup: Reference Settings', and 'Load: Reference Settings'.

Introducing AERO.soft™

Enterprise-wide audio and loudness management deployed on standard third party servers. Trusted Linear Acoustic AEROMAX® loudness control, UPMAX® upmixing, and ITU-R BS.1770-3 metering plus the very latest Dolby® encoding and decoding guarantees compliance with world-wide audio loudness regulations and the highest audio quality. Audio over IP connectivity via Livewire/AES-67 enables I/O of any flavor and combination or integration with third party video and/or audio encoding software.



AERO.soft features:

- Very high channel capacity software runs realtime on standard servers; Channel count constrained only by server performance
- I/O Independence via Livewire/AES-67 Audio over IP
- Linear Acoustic AEROMAX® loudness/dynamics control
- UPMAX® II automatic upmixing and downmixing
- Intelligent Dynamics™ with NEW Advanced ITU (AI) Limiter
- 5.1+2+2 (Voiceover/Local) 10-channel and 2 + 2 + 2 (Voiceover/Local) engines available
- ITU-R BS.1770-3 compliant metering
- Extensive remote control enables metering, control and local audio monitoring (up to 5.1 channels)
- Dolby Digital/Plus/E encoding and decoding option
- Nielsen® Watermark encoder option

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AERO.soft: Audio Control Without Bounds.

AERO.soft includes the AEROMAX adaptive wideband and multiband, multistage ITU compliant loudness control algorithm. Upmixing is provided by the Hollywood-approved UPMAX® algorithm which provides an engaging 5.1-channel audio experience for two channel sources. Loudness, spectral balance, and image shifts are controlled while preserving more of the original content than previously possible. AERO.soft uses the latest Dolby codecs which support Evolution, part of their new Intelligent Media Framework.

Each AERO.soft service is capable of handling up to eight so-called Instances. Each Instance can be either 5.1+2+2 with upmixing and downmixing, or 2+2+2. Both types include Auto Downmix output, support for SAP/DVS, Voiceover, and optional Audio Description (warble tone) functionality. ITU-R BS.1770-3 or EBU R128 meters are present on each output (24 total). Dolby Digital, Dolby Digital Plus, and Dolby E decoding and encoding is optionally available for each instance. Multiple services can be deployed on servers with enough horsepower, so audio channels per rackspace are maximized.

Linear Acoustic Intelligent Dynamics™

Linear Acoustic Intelligent Dynamics (ID) is a patented hybrid of single-ended and metadata control. It is an infinitely and automatically adjustable balance between permanent and reversible processing and the overall amount of control - all driven by the content itself. Compliant, high-quality content is preserved and unknown content is adjusted for compliance resulting in consistently pleasing audio delivered to consumers. ID can also be used to tailor content for the type of delivery. No longer one-size-fits-all, processing can be separately tailored for over-the-air (OTA), over-the-top (OTT), and mobile - all automatically, all in one unit. How does it sound? Exactly like the highest quality audio control always provided by Linear Acoustic: Exceptional. The difference is that audio can remain untouched. Or not. It's up to the content and the broadcaster.

Comprehensive TCP/IP remote provides control over all system settings, processing and coding parameters plus extensive metering of signal presence, processing and coding activity, and audio loudness. System status reports physical I/O details along with system, power supply and environmental health. The remote application also delivers remote audio, up to 5.1 channels, so the user can audition signal quality anywhere link bandwidth permits. An HTTP server is also included for simple get/set control of all parameters and retrieval of status.



More about Livewire Audio over IP and xNode Interfaces

Broadcast facilities have been using Axia Livewire AoIP (audio over IP) technology to route hundreds of audio channels using standard Ethernet switches, cables and other components. With thousands of devices on the air every day, reliability is proven.

Livewire is lightning fast, simple to implement, easy to manage, conforms to the AES-67 standard and is the technology upon which Ravenna is built. It also significantly reduces the number of cables and wires needed to transport and share audio throughout the broadcast plant. Nearly any audio source - analog or AES and now SDI - and myriad equipment from phone systems to codecs to satellite receivers - can be made a part of a Livewire network.

**AERO.soft is backed by the world-class support and expertise of Linear Acoustic
where 24-7 assistance is always just a phone call away.**

AERO.soft Specifications:

Processing

- AEROMAX[®] multistage adaptive wideband and multiband loudness and dynamic range control with ITU-R BS.1770-3 loudness metering
- UPMAX[®] II two-channel to 5.1 channel upmixing and downmixing, automatically bypasses discrete content.
- Includes Auto Downmix output, support for SAP/DVS, Voiceover, and optional Audio Description (warble tone) functionality
- Includes Linear Acoustic Intelligent Dynamics™ works with Dolby Evolution as part of their Intelligent Media Platform

Software Benchmark

Eight 5.1+2+Voiceover cores with eight Dolby E decoders/Dolby Digital (AC-3) encoders and 24 ITU-R BS.1770-3 or EBU R128 metering instances require one Intel Core i7 3700 with 4GB RAM.

Remote Control

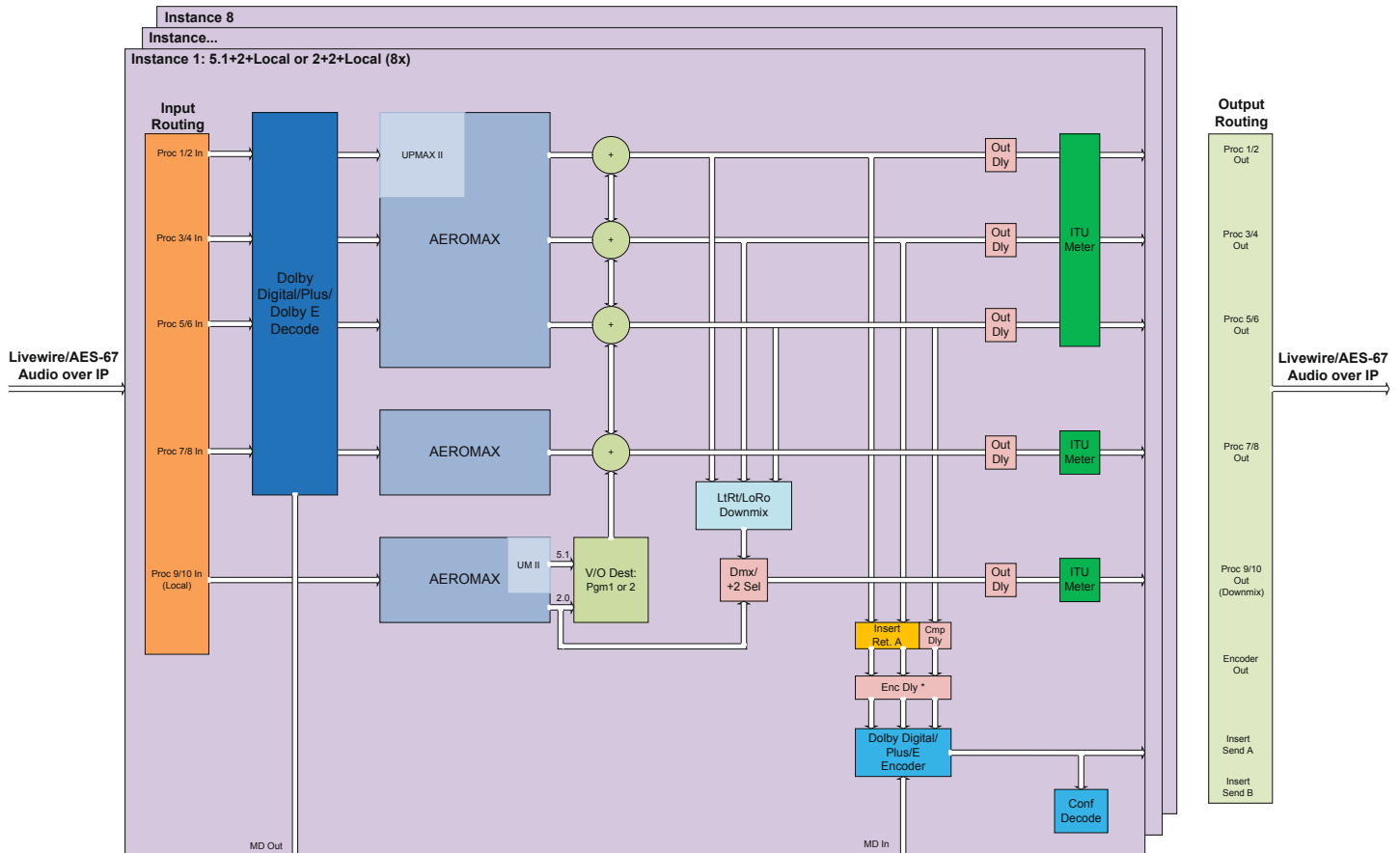
Dedicated TCP/IP remote control application provides extensive metering, control, system management and remote monitoring of one or many instances; HTTP server included for get/set control of all parameters

Options (vary depending on configuration)

- Up to 8 Dolby E/Digital/Plus Decoders and Encoders
- Up to 8 AEROMAX 5.1+2+2 Engines with dual UPMAX II upmix/downmix
- Up to 8 AEROMAX 2+2+2
- Up to 8 Audio Description Engines (warble tone)
- Up to 8 Nielsen Watermark Encoders

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Linear Acoustic AERO.soft Signal Flow



Preliminary Information



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