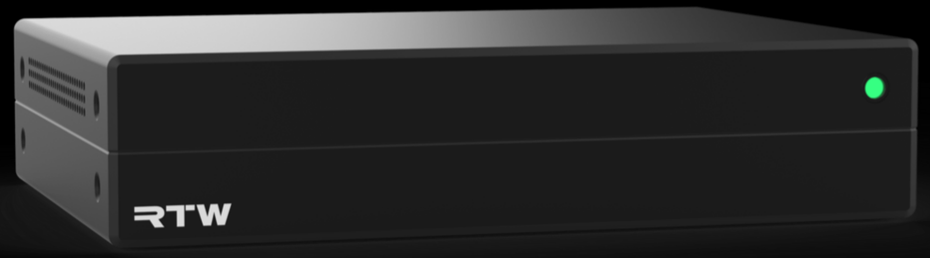
TMxCore

Immersive. Dialog Intelligent. Compliant





TMxCore



Background
What is it?

- RTW's latest high-end, **high-performance** broadcast and pro audio metering platform
- **AI-assisted** tools for advanced dialog intelligibility analysis
- **Immersive** audio metering for 5.1 surround and 7.1.4 formats - and beyond
- Fully **compliant** suite of loudness and metering instruments
- Network display: view your meters in any browser, **anywhere**
- **DisplayPort** output for direct connection to any monitor - up to 4K: 3840 × 2160
- **Network**-ready with RAVENNA®, AES67, ST 2110, Dante®, and AES I/O options
- Designed for **modern workflows**

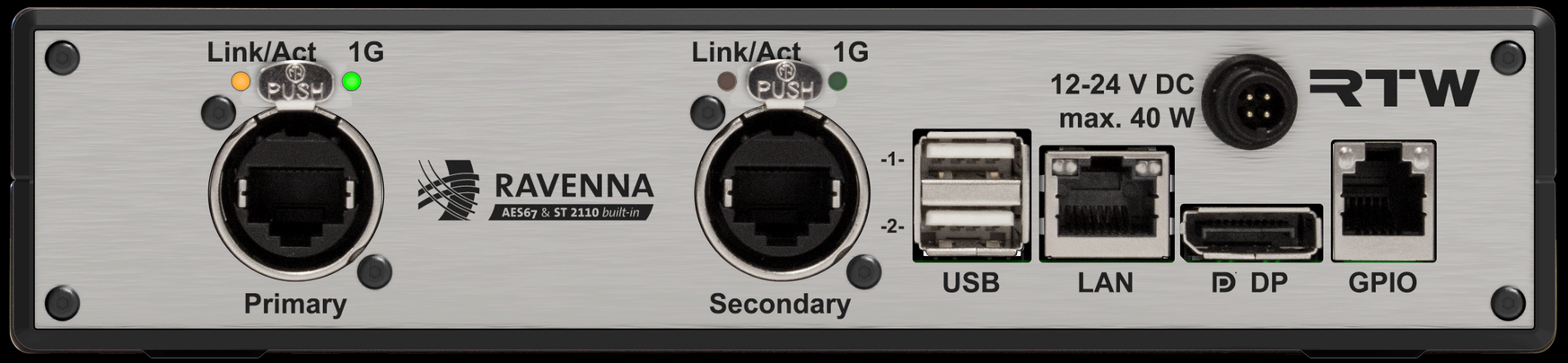
RTW
EYES ON YOUR AUDIO



RTW
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USB for touchscreen, mouse/keyboard, harddrive

Audio Over IP or Traditional Digital I/O



LAN connection for network display, control, OSC

DisplayPort for external display (4K: 3840 × 2160)

GPIO for external control

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TMxCore

Features
Multiple I/O Options



- USB, GPIO, LAN Control, DisplayPort
- RAVENNA ST2110/AES67 NMOS
  - 32 Channels
- DANTE
  - 32 channels
- AES16
  - 16 channels sub-D 25

RTW
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Instruments

The most comprehensive metering engine ever from RTW

EYES ON YOUR AUDIO

TMxCore

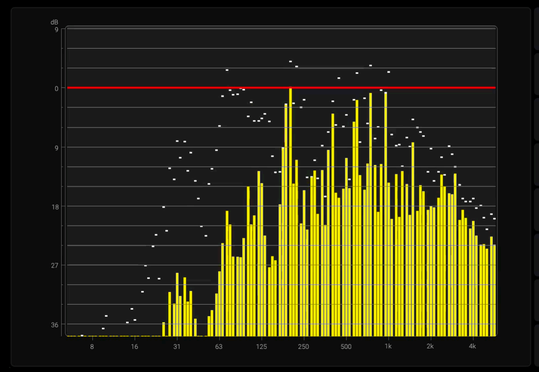


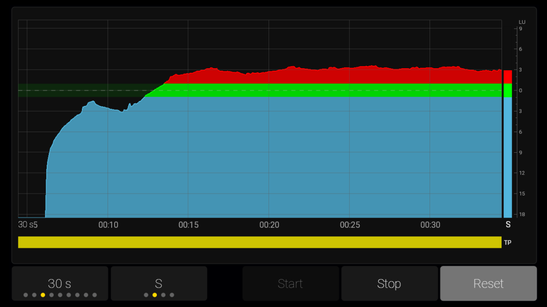
Features

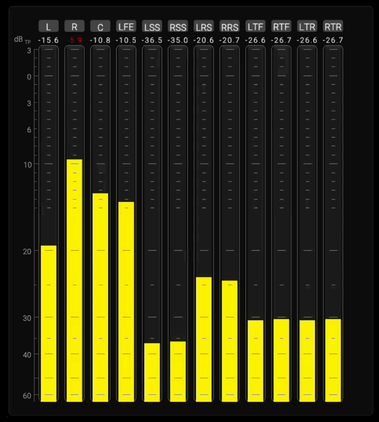
The instruments you know

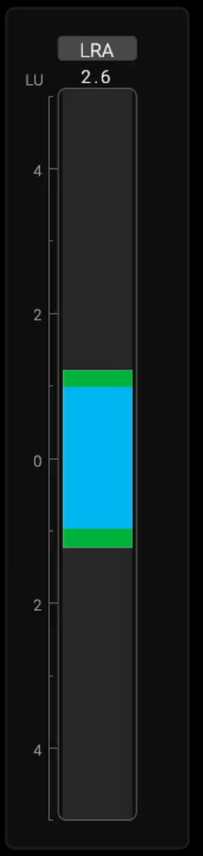
- Reliable, Classic
- Built on the trusted TouchMonitor TM7/TM9
- Levels, frequency, loudness compliance, phase issue detection

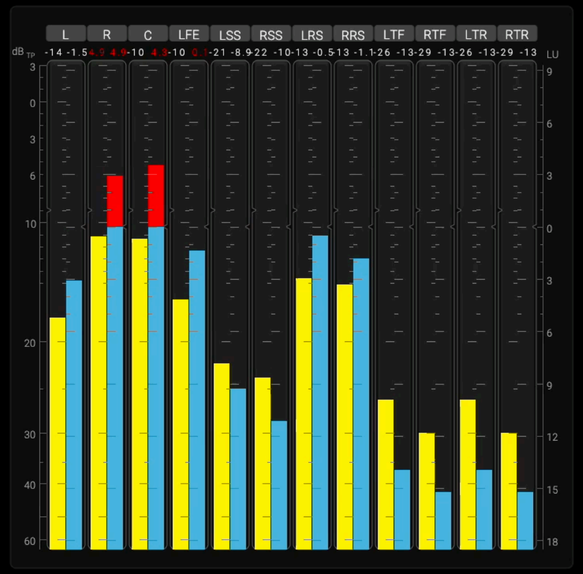
RTW
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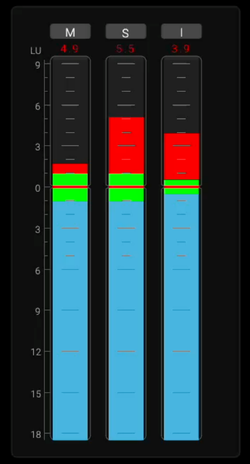


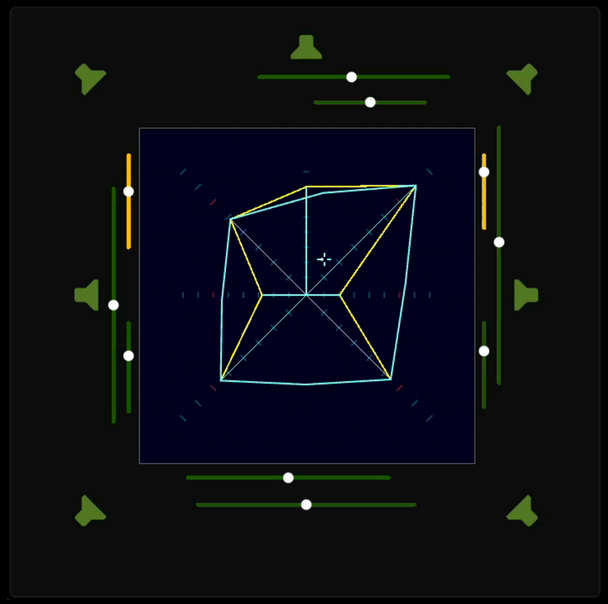


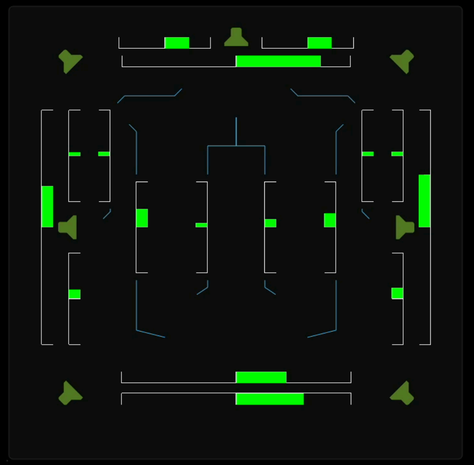




















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TMxCore



Features
Immersive Metering

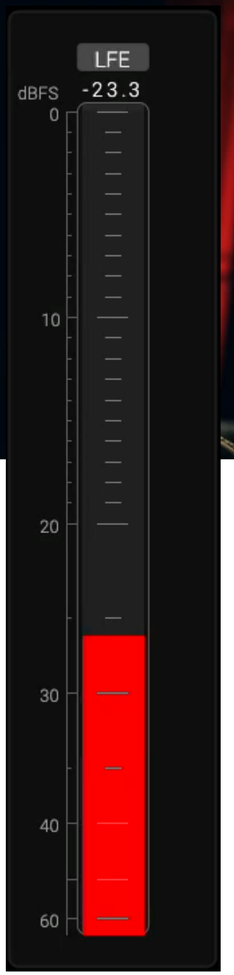
- Surround and Immersive formats. 5.1, 7.1.4 Atmos - and beyond
- Commonly used by broadcasters around the world
- Spatial Balance, Relationship between multiple speakers, detect phase issues
- Correlation problems with LFE channels

RTW
EYES ON YOUR AUDIO

TMxCore

Features
New: LFE Bleed





- Avoid high frequency content in your LFE Channel
  - Monitors energy above a defined threshold (120 Hz by default) with a compact dBFS bargraph, highlighting any leakage into the LFE channel(s).
  - Recommends limiting the LFE frequency range to maintain compatibility and avoid distribution problems.
  - Ensures that unwanted high-frequency content is not present in the LFE channel(s), preventing playback issues across encoders and binaural formats.

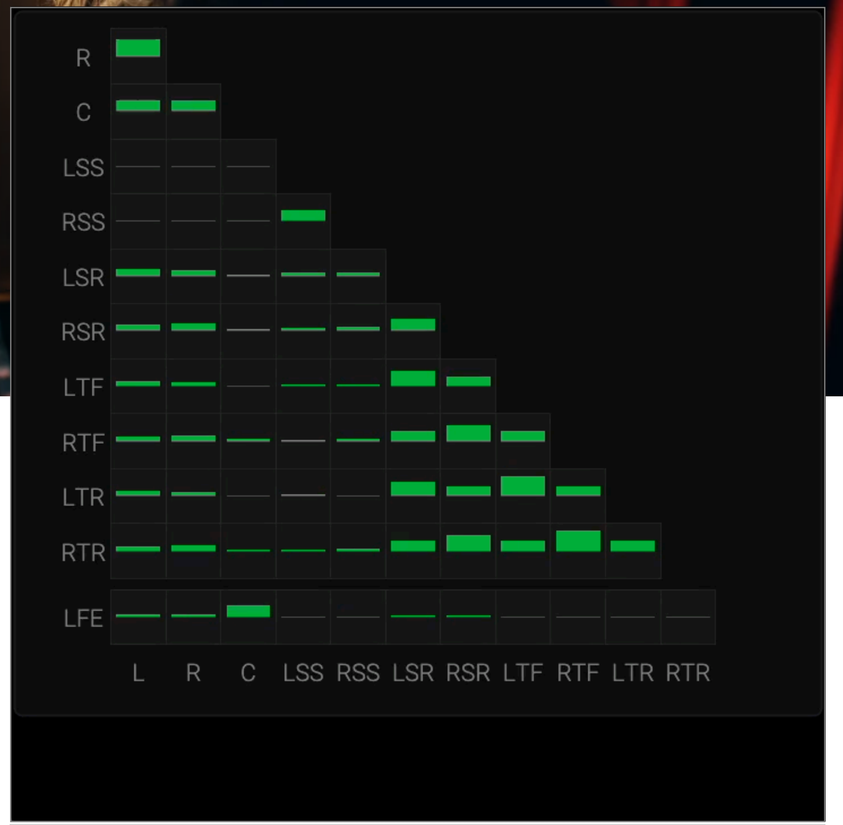
RTW
EYES ON YOUR AUDIO

TMxCore

NEW

Features

New: The Matrix Correlator



- Detect phase issues in a complex channel setup
  - Displays detailed phase relationships between all channels, from simple stereo up to complex 30.2 formats
  - Provides a comprehensive overview of inter-channel correlations for precise monitoring
  - Enables fast detection of phase conflicts within a mix, ensuring accuracy and consistency across formats

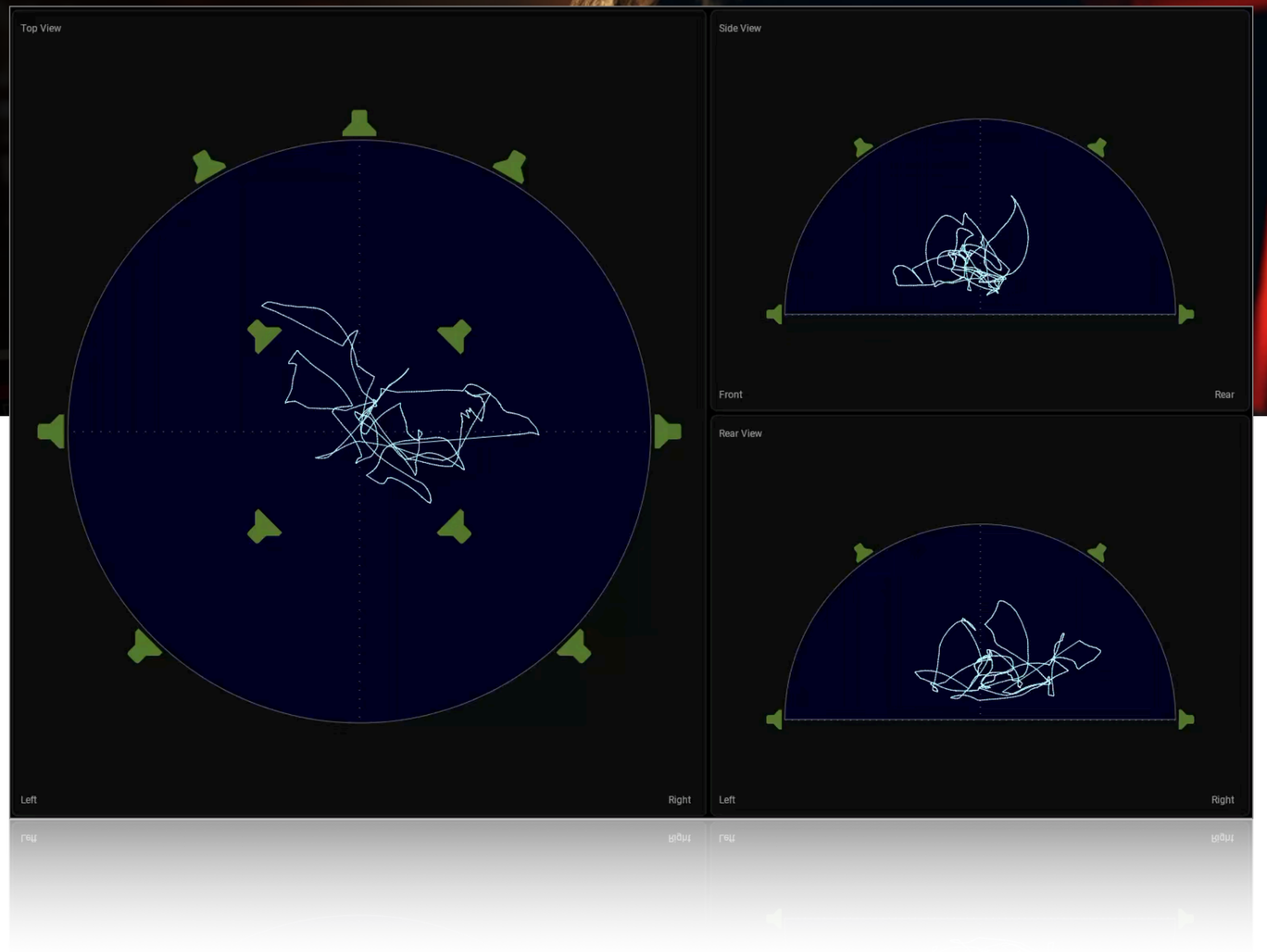
RTW
EYES ON YOUR AUDIO

TMxCore

NEW

Features

New: The Polar Scope



- Vectorscope extended. Monitor:
  - Spatial coherence
  - Channel delay mismatches
  - Phase conflicts
  - Front/rear balance
  - Spatial image width and depth
  - Energy Distribution

RTW
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Dialog Intelligibility

Hottest topic in Broadcast

RTW
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Features

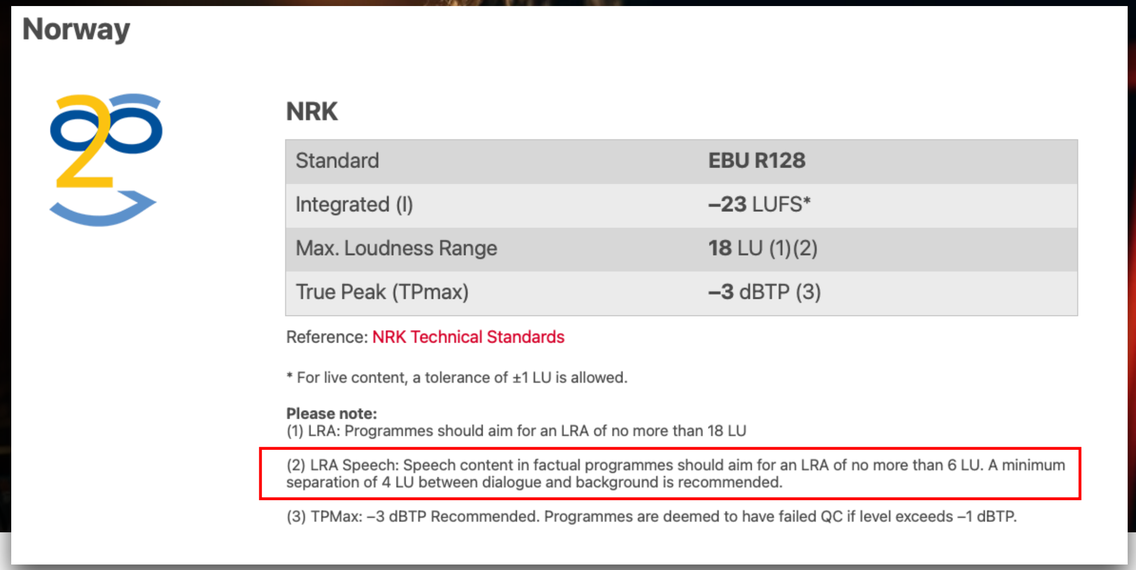
Dialog Intelligibility

- The most critical challenge in dialog sound today
- Severe issues reported by end listeners
- Multiple, often conflicting, approaches to measuring the problem
- Gathering insights and recommendations for the Loudness Blog
- Driving efforts toward a unified industry standard

TMxCore

Features

Dialog Intelligibility: Loudness Based Approach



Norway

NRK

Standard	**EBU R128**
Integrated (I)	**–23** LUFS*
Max. Loudness Range	**18** LU (1)(2)
True Peak (TPmax)	**–3** dBTP (3)

Reference: NRK Technical Standards

* For live content, a tolerance of ±1 LU is allowed.

Please note:
(1) LRA: Programmes should aim for an LRA of no more than 18 LU

(2) LRA Speech: Speech content in factual programmes should aim for an LRA of no more than 6 LU. A minimum separation of 4 LU between dialogue and background is recommended.

(3) TPMax: –3 dBTP Recommended. Programmes are deemed to have failed QC if level exceeds –1 dBTP.

- Dolby Dialog Intelligence: Dialog Gated Loudness Measurement (Netflix)
- LDR: Loudness-to-Dialog Ratio. Specified in EBU R128 Supplement 4.
- BDR: Background-to-Dialog Ratio. Ratio between the dialog and background audio. NRK (Norway), BBC, ARD, W3C and others.

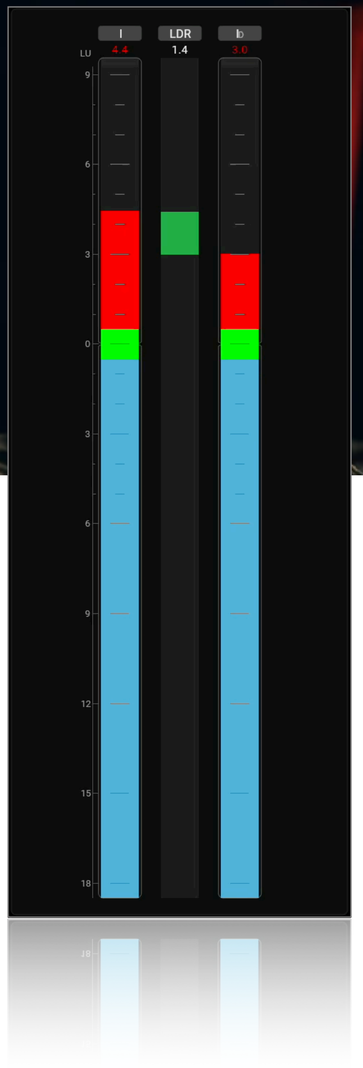
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TMxCore

NEW

Features

New: The Ratio Instrument



- Keep an Eye on the Dialog Ratio
  - Displays the **ratio** between two measurements, enabling precise evaluation of ratio and consistency.
  - Supports key use cases such as Loudness-to-Dialog Ratio (**LDR**) and Background-to-Dialog Ratio (**BDR**) within a single source.
  - Compares loudness across different sources or renderings (e.g., pre/post processing, immersive vs stereo), revealing the impact of processing and format changes

RTW
EYES ON YOUR AUDIO

TMxCore

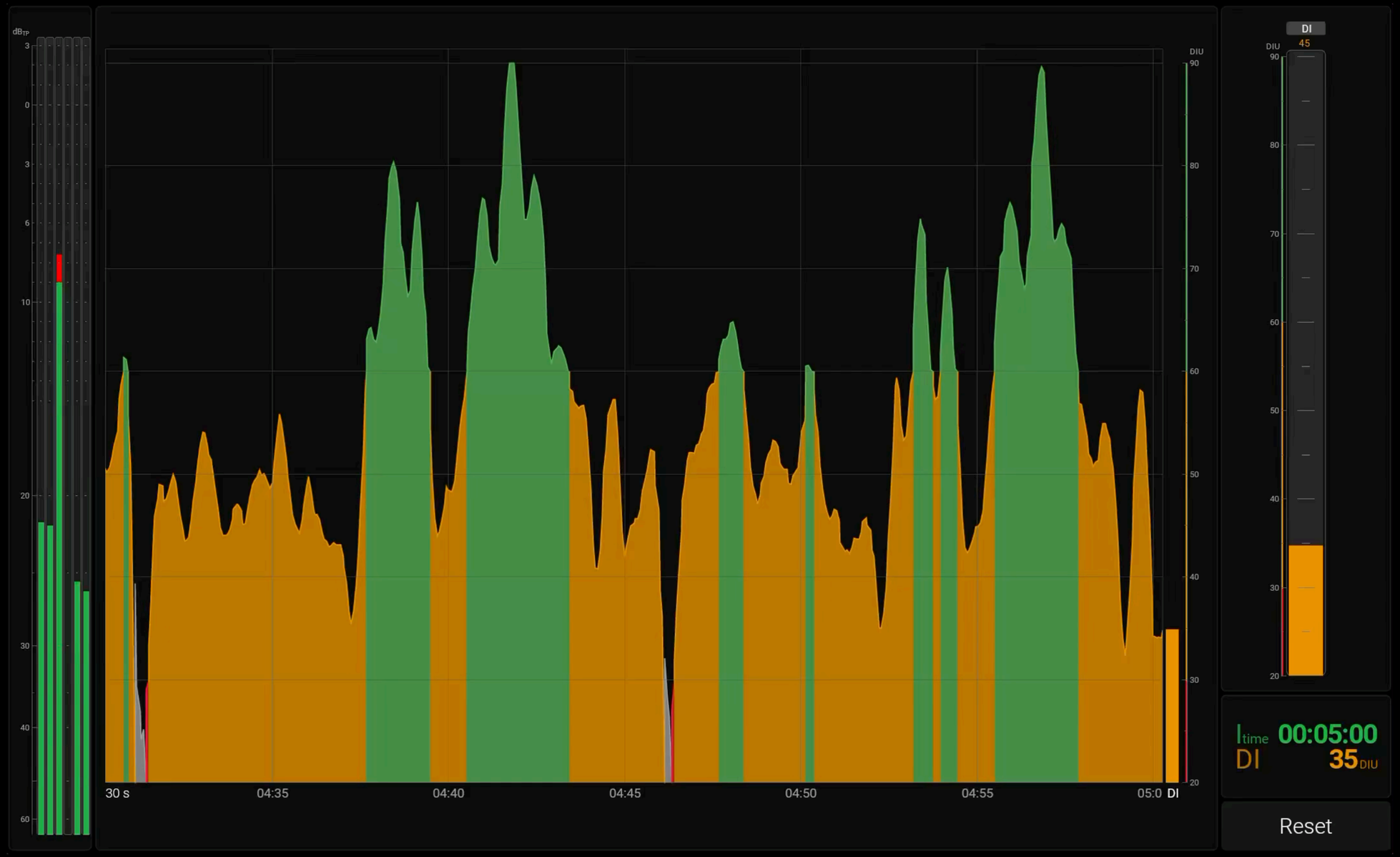


Features

The Dialog Intelligibility Instrument

- Eyes on Dialog Intelligibility
  - Provides AI-driven, **objective** measurement of dialogue clarity, developed in cooperation with **Fraunhofer IDMT** and based on over nine years of research.
  - Delivers real-time visual feedback that helps engineers balance dialogue, effects, music, and background noise with confidence.
  - Available as a **license** option for TMxCore, giving broadcasters and audio professionals a proven solution for consistent dialog intelligibility across formats.

RTW
EYES ON YOUR AUDIO



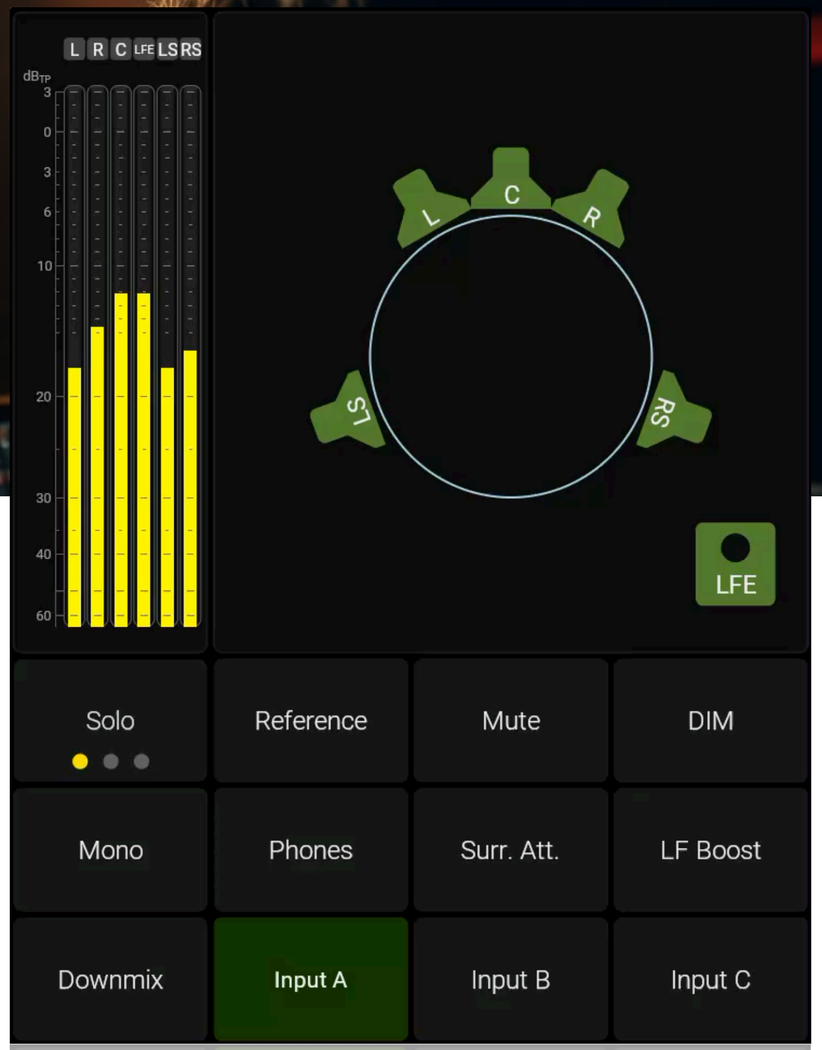
NEW

RTW
EYES ON YOUR AUDIO

TMxCore

NEW

Features
Monitor Control



- Speaker Level Control
- Mute, dim, reference level, input selection, downmix, bass management
- Speaker Calibration with Level, Delay, Polarity and 8-Band EQ
- Support for stereo- surround and -immersive speaker formats including 5.1 and 7.1.4

RTW
EYES ON YOUR AUDIO

TMxCore

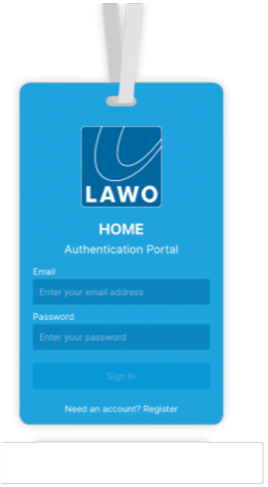


NEW

Features

External Logging & Integration

- LAWO HOME Integration
- Prometheus & Grafana Monitoring
- Genelec Smart IP Speaker Control
- NMOS IS-07 Event Support

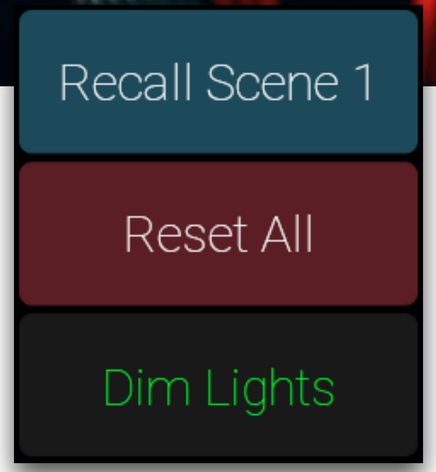


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Features
Action Instrument & OSC



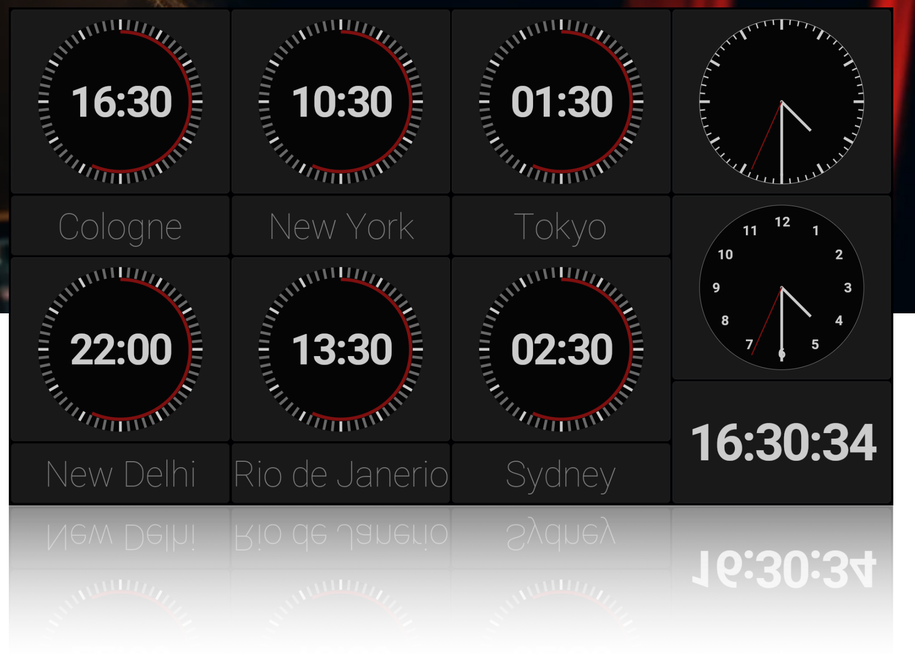


- Support for Open Sound Control
  - Create customizable buttons with user-defined size, position, and color.
  - Trigger actions via Open Sound Control (OSC over TCP/UDP) or HTTP.
  - Two-way OSC: TMxCore also reacts to incoming commands such as preset recall, loudness control, reference level, and mic gain.
  - Actions is integrated in current buttons (Mute, Dim, etc.), too

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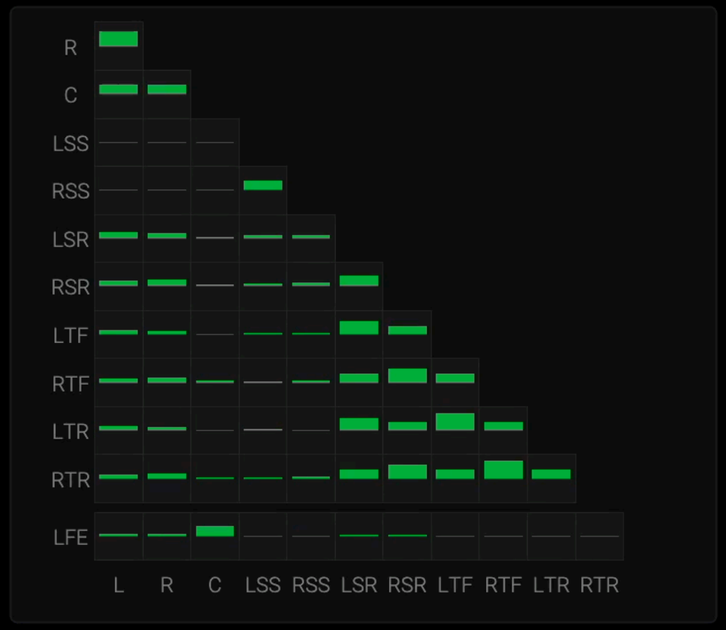
TMxCore

Features
Wall Clock

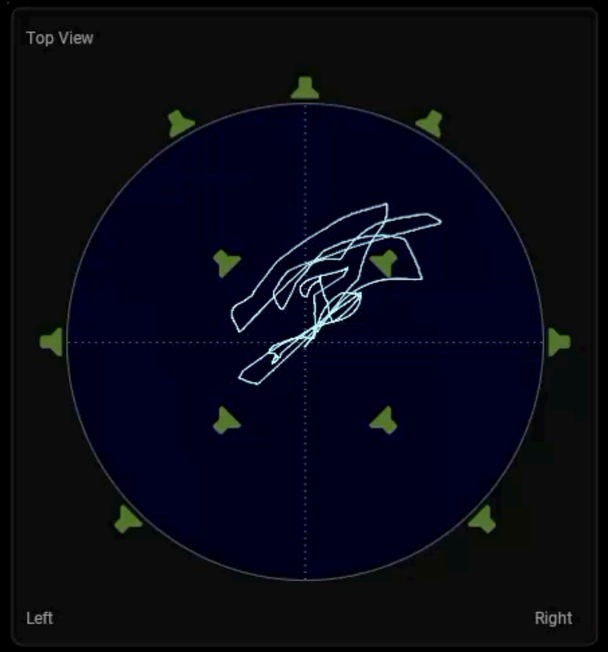


- Eyes on the Clock
  - Provides an always-on wall-clock reference in a broadcaster-friendly design
  - Offers four styles: digital, analog modern (no numbers), analog classic (with numbers), and broadcast focus with a red seconds ring
  - Support for Offset (Time Zones)
  - Ensures maximum readability and flexibility, integrating accurate time display directly into the monitoring workflow

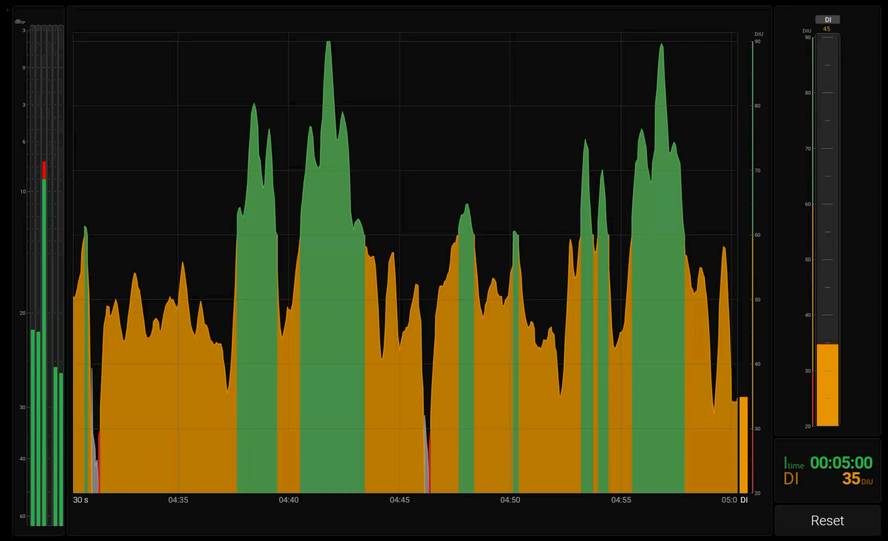
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Matrix Correlator



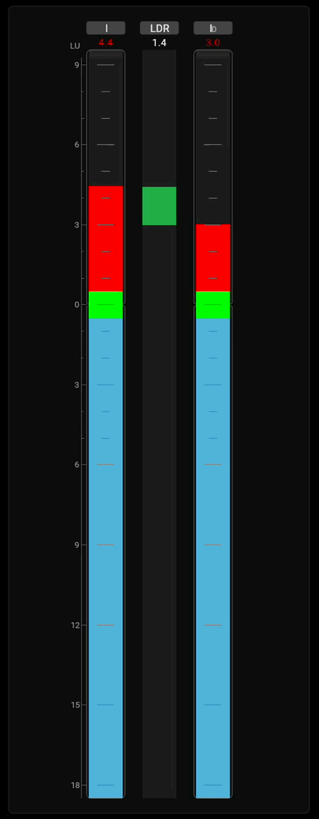
Polar Scope



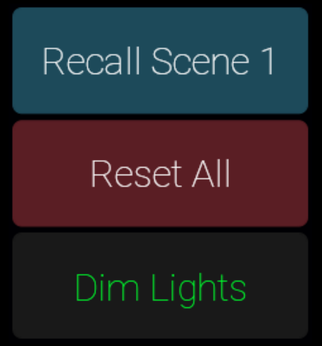
Dialog Intelligibility



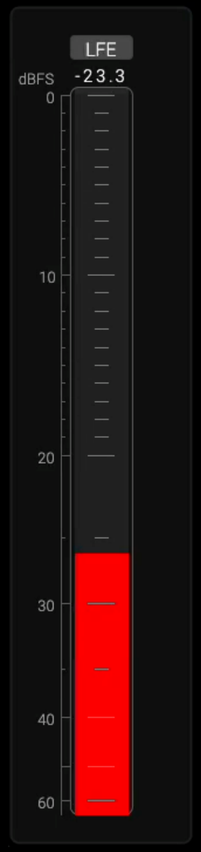
Clock



Ratio



Action: OSC



LFE Bleed

NEW

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Features

Network Display

NETWORK DISPLAY



- Eyes on your Audio from Everywhere
  - View real-time audio measurements anywhere on the local network using a standard web browser, without extra hardware
  - “Local network” = any location on the planet with a VPN connection
  - Monitor flexibly from control rooms, production suites, or multiple workstations
  - Expand with additional licenses, each adding a new metering instance (screen) to your setup
  - Latency: 1 frame (20ms) plus network latency

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TMxCore



Features

Rack Mount Kit



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Customers & Applications

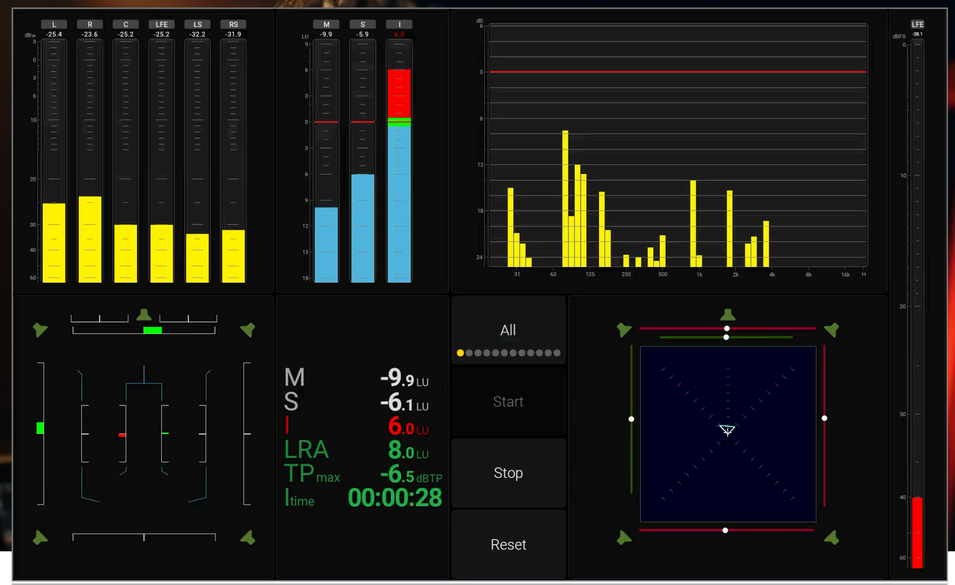
Who will benefit from TMxCore?

EYES ON YOUR AUDIO

TMxCore

Applications

Broadcast: Live Sports, Music, News

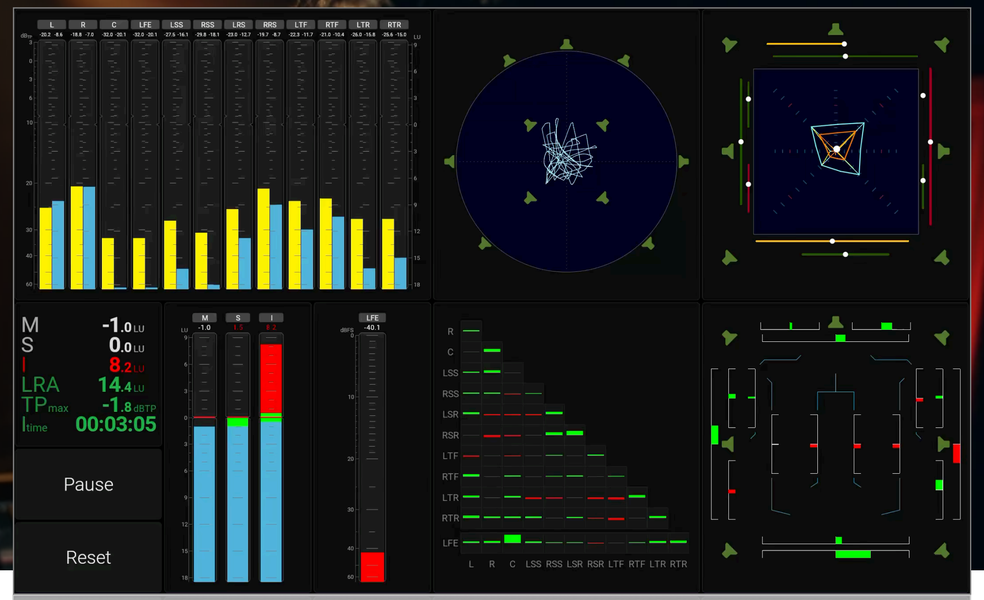


- Versatile connectivity: Supports Ravenna, AES67, and ST2110 networks for seamless integration in modern broadcast environments.
- Comprehensive monitoring: Equipped with robust loudness tools to handle live broadcasts from sports and music to news.
- Trusted compliance: Ensures adherence to international loudness standards, delivering consistent, high-quality audio.

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TMxCore

Applications
Post Production and Cinema



- Immersive-ready: Advanced metering tools tailored for immersive audio and dialog intelligibility on Dante® audio networks.
- Standards compliance: Simplifies adherence to international loudness regulations such as EBU R128 and ATSC A/85 (CALM).
- Delivery assurance: Meets streaming platform requirements, including specifications from Netflix.

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Applications
Installed Sound

- AoIP integration: Designed for installations in stadiums, theaters, houses of worship, and event spaces.
- Comprehensive toolkit: Provides a full suite of metering instruments for professional audio monitoring.
- Audience focus: Empowers engineers to optimize performance and deliver an enhanced listening experience.

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Applications
OEM: Broadcast Consoles



- Screenless flexibility: A compact, display-independent platform that integrates seamlessly while leaving full visual control to console manufacturers.
- Future-ready performance: Equipped with powerful CPU and RAM resources to handle loudness, dialog intelligibility, and immersive audio standards.
- Trusted integration: Standardized I/O, network connectivity, scalable licensing, and RTW’s proven quality ensure reliability without compromise.

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Market
Licenses

- Super simple licensing structure
- Basic version contains what most need
- Licenses:
  - Surround and Immersive Instruments
  - Monitor Control
  - External Logging and Integration
  - Dialog Intelligibility
  - Extra Screen Displays
- Pricing equals that of a classic TM with relevant tools

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Status
Classic TouchMonitor TM7/TM9?



- Still Available
- Including OEM Versions

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Read More
Product Page

TMxCore Product Page

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