

# INDUSTRY STANDARDS AND MORE

How to deliver constantly industry-standard audio quality? Even after a long working day when your ears get tired.

That was the main question which triggered our engineers to develop in the beginning of the 90's a bunch of software tools for analyzing and visualizing audio programs. Starting with visualizing the most important quality parameters of the 44k/16 bit digital stereo format for high-end CD mastering studios the brand PINGUIN quickly gained a high reputation.

Later we expanded the available tool set for surround applications and did add offline tools for video and film post productions studios. After 2000 we focused our R&D into loudness perception methods and supported international standard working groups of ITU and EBU. A real time networked logging software was created exclusively for all stations of the German broadcaster ARD. First we implemented methods of Germany's IRT, later EBU's R128, which is based on an international ITU standard (similar ATSC A/85).

## Nowadays we do offer

- PGAMM (select X out of 16 different real time meter types)
- DAW connectivity (Plugin for DAW software PC and MAC)
- LdnServer (an external Datalogger)
- LdnNormalizer (an offline batch processor)

for matching all kind of workflows in the studios.

Your advantage is our 25 years experience in analyzing any type of multidimensional sound fields. Check it out.

## What others say about our product

The Technology and Production Center Switzerland (tpc) changed its HD playout centre in Zurich to loudness metering according to EBU R128 at the beginning of this year. tpc is relying on a networked installation of ten PGAMM audio multi-meters...

... Six ingest streams, each with 16 audio tracks, are measured in parallel (stereo German, 5.1 German, stereo foreign language, 5.1 foreign language)...

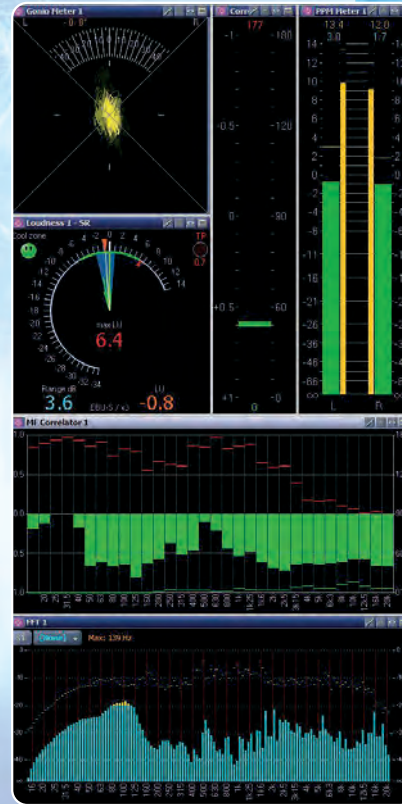
"With this installation, we changed our ingest process and the on-air operations to loudness metering. Thanks to the networking and integration of the Penguin audio meters the new workflow is largely automated, avoiding extra work for our engineers", commented Alfio Di Fazio, project leader at tpc Audio Technology in Zurich.



find more details  
in press archive of:  
[www.masterpinguin.de](http://www.masterpinguin.de)

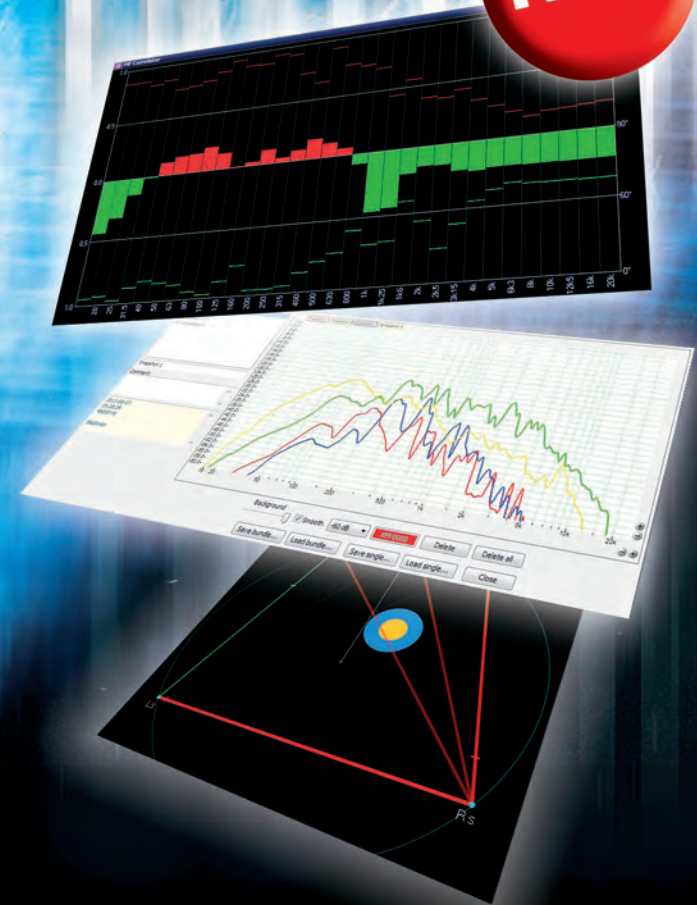
# SUMMARY

- for stereo, 5.1 and advanced 3D-audio
- Quickly Responding, Pulse Accurate Real-Time Visuals
- Arbitrary Scalable Supporting ALL Display Sizes
- Customizable Work Spaces
- Precision True Peak Metering
- Real-Time Spectrum Display as FFT or RTA Solution
- Stand Alone (ASIO support) or VST-Plugin for DAW
- Novel Multi Frequency Correlator
- Flexible Routing for up to 64 Channels
- 15 Different Tools Included, Made by Field Experienced Engineers
- DataLogger Supports Client/Server Based Network, Open Protocol
- Logger Supported by Other Manufacturers (Stagetec, Grimm etc.)
- Batch Processing Loudness Normalizer Tool Available
- Supports MAC and PC
- EBU/R128 + A/85 Compliance in all Levelling Tools



# THE KEY TO QUALITY

NEW



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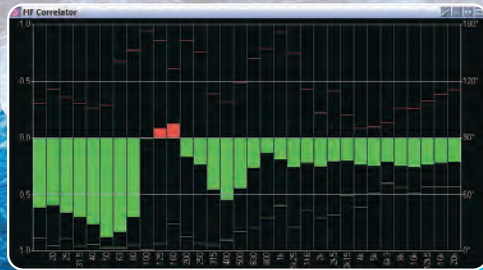
AUDIO METERING SOFTWARE

**NEW**

## SPATIAL METER

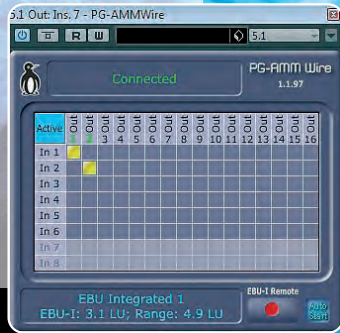
shows the correlation of two channels in multiple frequency bands. It helps in designing an impressive multichannel sound field as well as mastering a stereo program.

It's the latest of a bunch of other spatial visualizers (Goniometer, full band correlation meter) which was used by our internal R&D in the creation of impressive virtual sound fields.



## DAW CONNECTIVITY / PGAMM-WIRE

This Plugin delivers a kind of "virtual cable" to our latest PGAMM standalone software. It is available in the formats VST, RTAS (for Mac and PC), and AU (Mac) and saves a soundcard when PGAMM is operated on the same PC as the DAW. (the so called WireMode)



## LDN VIEWER

This free tool lets you browse through the logged loudness data of your LdnServer.

You can analyze quickly all your broadcasted programming with arbitrary start stop times and dates. All this without the need to measure the protocol recording again.



# THE MODULES

## EBU LOUDNESS

EBU-M/S Loudness displays Momentary or short-term loudness (LU), loudness range & true peak levels with a high accuracy. A separate numerical field shows MAX\_M or MAX\_S.

A loudness target range can be defined by the user, which is highlighted on the meter's scale. You can also set you own target level, leaving the EBU standard for using the instrument for CD or Internet mastering or radio programming, where the current



EBU target is too low. The userdefined target is always the 12:00 position on the scale. Maintaining the EBU concept even with a different target level is THE argument against the loudness war!

Please note our study about hidden normalizer mechanisms used nowadays in iTunes, Spotify and colleagues.

## EBU LOUDNESS NUMERICAL

The integrated R128 loudness (PL) and range (LRA) is shown numerical. It has the required start stop reset mechanism as well as a pause function to eliminate a part of the program from the measuring.

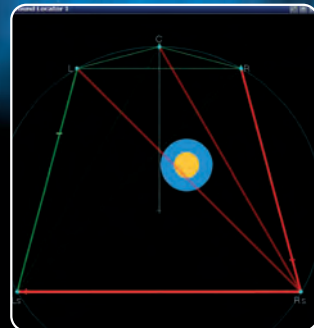


The Start/Stop function of the tool can be remote controlled from the PGAMMWire Plugin or special custom solutions, e.g. ingest automation systems.

A new report generator is included for printing a EBU COMPLIANCE report to attach your delivered audio material. A statistical "histogram" analysis view can be seen immediately after the stop command.

## SURROUND LOCATOR

The Surround Locator lets you observe the total loudness in the surround field, its position, as well as phase relationships between audio channels in a 5.1 surround setup.



## LDN NORMALIZER

The Penguin Loudness Normalizer allows you to analyze and optionally normalize the loudness of multiple audio files with one click. After normalizing a printable EBU compliance report is generated on demand.

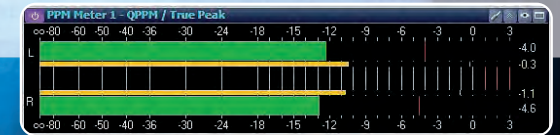
A statistical "histogram" view helps in judging your dramatic flow of a long term programming.



## LEVEL METER

This display supports several industry standards: PEAK, TruePeak, PPM, VU, the K-System including an advanced K with ITU weighting. Very useful as a weapon in the loudness war and for matching current loudness normalizers built-in in popular music streaming internet services etc.

It can show up to 2 standards per channel at the same time to derive advanced attributes like short term dynamics etc.



## AVAILABLE BUNDLES

All these elements are bundled from us for 3 different main applications:

- stereo (CD Mastering, Mixing stages)
- post pro (special 5.1 tools for level and field correlation, DOLBY LEQM included)
- broadcast (more windows at the same time, all of the above + data logging + batch processing)

Any bundle is fully customizable, which means you have an internal matrix supporting up to 64 i/o channels which can be routed to an arbitrary amount of meters. On top we support quickly recallable workspaces reflecting a user selection of tools.

If your problem can still not be solved with one of those editions, feel free to ask for advanced custom solutions. Especially broadcasters have very different workflows nowadays and custom solutions can save a lot of time internally.