What's new in ACQUA 6.2.200

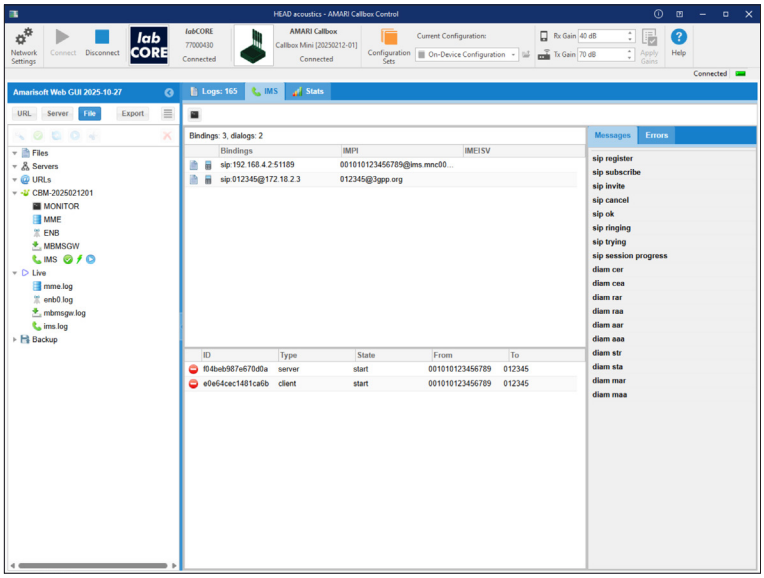
Significant changes since 6.1.100

The release of ACQUA 6.2.200 includes the newest *lab*CORE and move°S firmware. Full functionality of all features requires the installation of this firmware.

New features

ACQUA Options

ACOPT 42 – Amarisoft Callbox Control

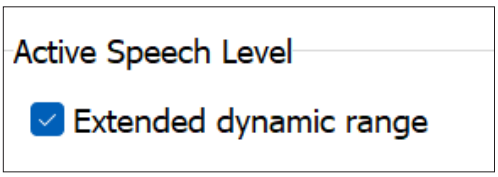


The AMARI Callbox is a radio communication tester from Amarisoft for simulating LTE (4G) and NR (5G) networks. ACOPT 42 allows ACQUA to upload and activate configuration sets on the AMARI Callbox. Prepared configuration file sets for both network generations and frequency bands within networks are included in the delivery of ACOPT 42.

Furthermore, ACOPT 42 provides access to the main functions of the AMARI Callbox through a graphical interface and displays the *WebGUI* of Amarisoft. This *WebGUI* shows the status of the AMARI Callbox by visualizing its internal real time logging data.

After a successful configuration of the AMARI Callbox, labCORE and a device under test can be registered at the IMS server of the Callbox to establish a voice call between both devices.

ACOPT 09 – SLVM P.56, Active Speech Level



The algorithm according to Recommendation ITU-T P.56 was originally developed for systems using 12-bit quantization, the reference implementation (ITU-T G.191) uses 16-bit quantization.

The *Extended Dynamic Range* option in the *Settings* > *Measurement Settings* dialog enables the algorithm to use the full 32-bit range of the recorded audio signal. This does not strictly comply with ITU-T P.56, but in many cases, it leads to more stable results.

ACOPT 30-SL

Newly acquired POLQA licenses will be soft licenses and do not require an additional dongle anymore. ACOPT 30-SL includes a POLQA soft license for one assigned computer and requires regular Internet access.

Analyses

Distortion (Farina)

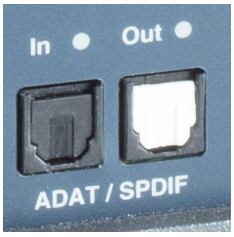
In *Cumulative harmonic distortion* mode power levels are summed instead of voltage levels.

ACOPT 41 – Speech-Based Distortion Measure

Added new graph view options (Estimated Frequency Response, Spectral Components, or All). This supports more targeted, efficient interpretation by isolating key frequency characteristics or spectral components.

*lab*CORE

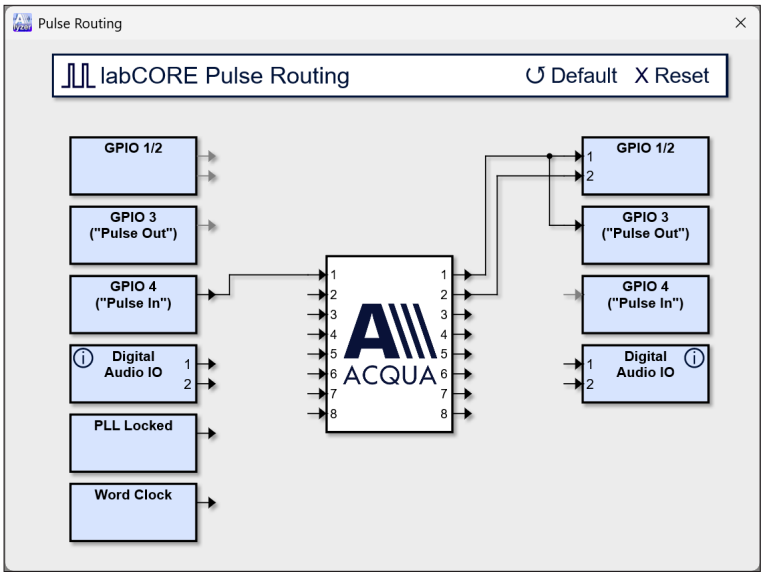
Optical Interface (ADAT/SPDIF)



The optical interface now supports ADAT, S/PDIF, and AES at the output and the input socket. The desired setting can be selected for the output interface. The input interface automatically recognizes the protocol/standard of the applied input signal.

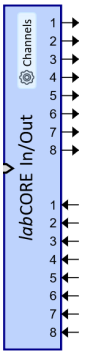
Pulse/AES B Interface

The HD D-Sub 15-pin socket consists of two GPIO pins for pulses which have been used unidirectional. They were designated as *Pulse In* and *Pulse Out*. Now, both GPIO can be configured for each direction.



*lab*CORE I/O Block

The number of input and output channels for *lab*CORE can now be set by using the *Channels* button of the *lab*CORE block. The number of available output and input channels is always identical.



Miscellaneous

Export of Command Sequence Trajectory Files

In the Turning Device Command Sequence Editor, the export of trajectory files allows specifying the time resolution.

Recording of Pulse Channels

Yet, ACQUA recognized audio channels and pulse channels together. Therefore, the number of recorded audio channels and pulse channels was identical. However, *lab*CORE provides activating up to eight pulse channels. Now, all activated pulse channels are considered for recordings unconditionally.

Significant Bugfixes

> Correction of license check for *Speech-Based distortion* and *LEAP*.

> Import of command sequence files for move°S was only possible via drag-and-drop.

> Applying IIR filter(s) for playback/recording did require high computer resources under certain specific conditions.

> In rare cases, ACQUA did mute the wrong channel when applying the SMD *Automated Double Talk*.

> The setting dB_{SPL} *Preferred* of the *Measurement Settings* was not always considered.

> SMD Editor: *Special Features* > *Show Pulse* was not adapted to multi-channel usage.

> Peak value in *Calculation* > *Level* did not consider units diverging from dB (e.g., dB_{SPL}).

> When applying *Play & Record*, many functions in ACQUAlyzer were inaccessible.

> The *Add Comment* window was moved to the background when the *Uploading results to database* progress dialog was displayed. One might think that ACQUA was frozen.

> *Command Sequences* were not considered when copying projects.

> In rare circumstances, starting a measurement failed if a BEQ block was included in the hardware configuration and associated HATS in the workplace settings had no ear.

> LEAP calculation: *Sequential Windowing* sometimes crashed.