

What's new in ACQUA 3.5.100

New Features:

○ MFE VIII.1

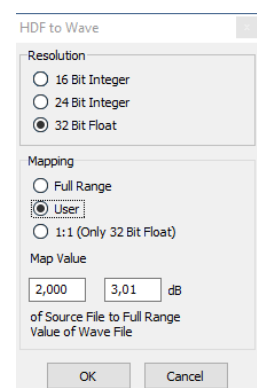
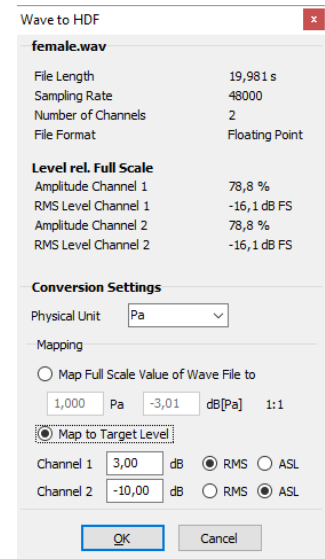
The following new features are available for MFE VIII.1 and require a new MFE VIII.1 Firmware.

Note: With the new MFE VIII.1 firmware, the delays of some codecs changed and must be adapted in the measurement standards accordingly. Please refer to Rev. 13 of the MFE VIII.1 manual.



- **MFE VIII.1-SPE: Makes EVS codec with network impairments possible**
 - The new hardware extension for the front end MFE VIII.1 allows the use of the EVS codec on primary front end and thus the combination of the EVS codec with network impairments (provided that the software option MFE VIII.1-IMP is installed).
 - MFE VIII.1-SPE is part of the software option Cod-EVS (code 6495) and is required for running the EVS codec.
- **Updated EVS codec**
 - The EVS codec of Cod-EVS (Code 6495) is now based on the current version 13.3.0 of the 3GPP standard TS 26.442 and is fully compatible with it.
- **Editing and display possibilities of network impairments for MFE VIII.1-IMP**
 - The adjusted network impairments are displayed as table and as Delay vs. Time Diagram. It is possible to edit the network impairments and to export them as .tcn, .bin or .txt files.
- **MFE VIII.1-IMP with MFE X or MFE XI**
 - MFE X or MFE XI are also allowed as secondary front ends together with MFE VIII.1 as primary front end. By this, MFE VIII.1-IMP can be used together with MFE X or MFE XI.
- **Jitter measurement at Ethernet input of MFE VIII.1**
 - Now, the jitter of the DUT can be measured at the MFE VIII.1 and can be queried via COM interface.
- **Delays of MFE VIII.1**
 - Delays changes, see Table.
- **ACQUA result diagram**
 - Merge and Save As...:
 - Now, the channels currently selected and checked in the Result Diagram can be saved to a single file. So far, this was only possible file-by-file, but not channel-by-channel.
 - Curves can be rearranged in the legend
 - Tolerance evaluation at 1/nth octave spectra now adapted to ACQUAlyzer (since 3.3.200)
 - Minimum Distance to Tolerance Scheme Calculation

- New column with the legend (as in the diagram). Previously, the channel description was the same, which made the distinction of values very difficult if several curves were selected.
- **Loop mode in ACQUA project tree enhanced**
 - Now, also supports HHP IV
 - Further tooltips: The settings offered in the context menu now also provide additional information in the tooltip.
- **SMD modulation**
 - The modulation analysis introduced with ACQUA 3.4.100 can now also be used with SMD.
- **File playback in online level**
 - Instead of a sinus as an excitation signal, the currently loaded source file can also be used (as in the online FFT).
 - Now, setting of averaging time of level calculation allows longer times.
- **Import and export of Wave files revised**
 - Import
 - The import dialog shows information about the selected Wave file: file length, sampling rate, number of channels, file format (Float or Integer). Furthermore, the maximum level control and the RMS Level rel. Full Scale of each channel are calculated.
 - In addition to the existing possibility to map the Full Scale value of the Wave file to a world value of the imported file, a target level can also be set for each channel: either as RMS Level or as Active Speech Level (requires ACOPT 09).
 - The button "1:1" is only available for Wave files in float format. A click on button sets Peak value to 1.0. With this setting, the values of the Wave file are transferred unchanged.
 - So far, Wave files have always been imported 1:1 in Float format, this restriction is now omitted.
- Export
 - Up to now, files in Float format have been exported without scaling the data to the correct value range of ± 1.0 , which is intended by the specification of Wave. This is useful for post-processing of files e.g. using MatLab, but such files lead to problems in signal editors.
 - Now, both a scaling to the valid value range of Wave files (Full Range, User) as well as one-to-one mapping of Float files is possible.
- **Speech Transmission Index 2011 (ACOPT 27)**
 - In the calculation of STI it is now possible to switch between the old version (IEC 60268-16:2003) and the new version (IEC 60268-16:2011).
 - There is only one STIPA mode (so far: two, male and female). A new test signal is used for this.
- **MMD settings can be replaced**
 - So far, MMD settings could not be changed in place. If the user selected a setting that had already been used once, a copy was generated and the name was changed so that it was unique. This ensured that the change was local only and



- other areas of the tree that used the same setting were not changed unintentionally. Now, it is possible to replace a setting. For that purpose, a corresponding option when selecting a setting is available.
- **Load into ACQUAlyzer automatically with tolerance scheme**
 - If a result is loaded into the ACQUAlyzer, now a possible applied tolerance scheme is also displayed.
 - **Report of all results with status "Not OK"**
 - **Description for variables in the report**
 - In the report variables were always replaced by their values. It was no longer obvious that a value was derived from a variable. Now, variable name and description are added to the report.
 - **Mouth equalization and input calibration: List boxes are sorted alphabetically**
 - **More information for script errors**
 - It is shown which script generated an error (Pre/Post SMD, Global, Project ...).
 - **Menu entry for analyze settings is structured**
 - Since introduction of Modulation Analyses the menu entry was so long, that it no longer completely fits on smaller monitors. Now, more sub menus are available.
 - **Use of FF- and DF-Average equalization in recordings**
 - Even when FF- or DF-Average is used for calibration in measurements, a corresponding entry in the recorded file will be made, so the equalization can automatically be selected correctly for playback via appropriate hardware.
 - Since ACQUA 3.4.100, this entry has been made already when using FF, DF or ID filter of the MFE VI during recording.

Bug fixes:

- Correct decoding of SID packets by AMR-NB/-WB codecs: Now, the codecs AMR-NB and AMR-WB generate the correct Comfort Noise instead of the existing mute when decoding SIP packets, i.e., during DTX phases.
- MOS-SMD sometimes requested two calibration values for one channel measurements.
- Smd.CancelSilently corrected: Had no effect. Nevertheless, a message box was displayed.
- Sign error in IP configuration of MFE VIII.1 fixed: Due to a wrong conversion, the network configuration of MFE VIII.1 was set back to 0 after entering it.
- Jerking of the progress bar during audio playback reduced: The progress bar of the audio playback of ACQUAlyzer could start jerking at high CPU load at the MFE VIII.1, especially when using the EVS codec. Now, this was significantly reduced.
- Opus parameter in MFE VIII.1 VoIP settings are added: Opus parameter "complexity" and "expected packet loss" are now stored in the MFE VIII.1 VoIP settings and are written correctly into the device when loading the settings.
- "Selection" marking was not always on the selected cells: Selection was correct but due to the wrong display perhaps the selected cells were not clear.
- ACQUA result diagram - Adjust tolerance: Adjust tolerance was not possible for abscissas with unit [s]
- DB admin - Backup on remote server did not work: Message "Folder does not exist" always appeared
- Connection of HHP IV via duckbill: Connection terminated regularly, because too many sockets were established for connection check. Now, the performance is significantly more stable.