

Listening effort prediction made easy: HEAD acoustics integrates LEAP into ACQUA 6.1.100

- On-site prediction of the perceived listening effort
- Measurements without a reference signal

With [LEAP](#) (Listening Effort Prediction from Acoustic Parameters), HEAD acoustics has integrated a software tool that predicts the perceived listening effort of a listener when hearing an impaired speech signal – without the need for an undisturbed reference signal. This makes it possible to carry out measurements more efficiently in laboratory and real-world applications.

The software solution developed by the Fraunhofer Institute for Digital Media Technology IDMT-HSA categorizes listening effort using the Effort Scale Categorical Units (ESCU), which range from 1 (no listening effort) to 14 (only interference).

Examples of situations where no undisturbed speech signal is available include synthetic speech from smart speakers, smartphone assistance systems, and vehicle navigation systems. Another field of application is scenarios in which, from a technical point of view, a reference signal could be used, but implementation would be very complex, for example in the case of public address systems at train stations or airports during operation.

ACQUA 6.1.100 - Software platform for speech and audio quality measurement chain

[ACQUA](#) from HEAD acoustics is the reliable basis for the complete voice and audio quality measurement chain, from generating complex excitation signals through automated measurement and analysis of signals to secure storage and documentation.

With ACQUA, you can effortlessly and comprehensively conduct measurements for any transmission scenario, such as VoLTE, USB, A2B®, and Bluetooth®, or measure devices like mobile phones, hands-free terminals, ANC headphones, ICC systems, and smart speakers with ease. With the ACQUA release 6.1.100, we have substantially improved the extensive feature set.

About HEAD acoustics

HEAD acoustics GmbH is one of the world's leading companies offering holistic sound and vibration analysis solutions. In the telecom sector, the company enjoys global recognition due to its expertise and pioneering role in developing hardware and software for measuring, analyzing, and optimizing voice and audio quality, as well as customer-specific solutions and services. HEAD acoustics' range of services covers sound and vibration engineering for technical products, investigation of environmental noise, speech quality engineering, training, and support. The medium-sized company from Herzogenrath near Aachen has subsidiaries in China, France, India, Italy, Japan, South Korea, the UK, the USA, and numerous sales partners worldwide.