

DiVAS Voice Diagnostics

For the objective measurement of the quality and capability of the human voice

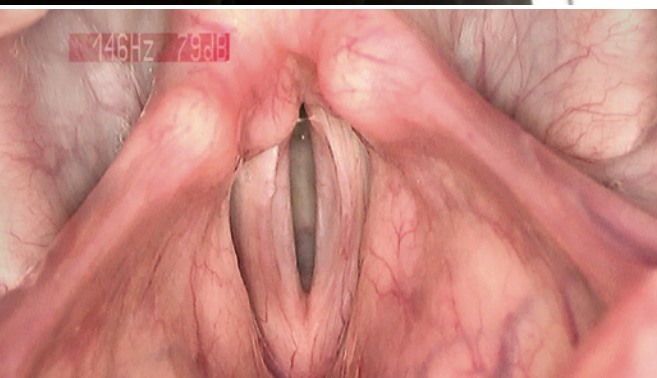


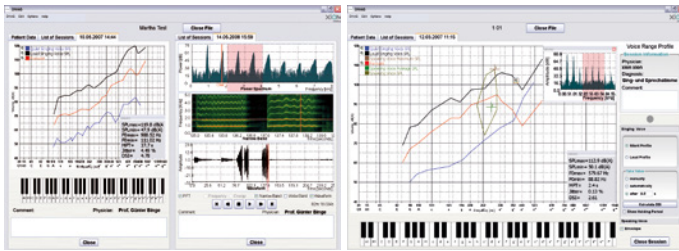
The new generation of DiVAS voice diagnostics software provides completely new opportunities for the objective and reproducible evaluation of the quality and capability of the human voice. In addition to its main application by ENT doctors and speech pathologists, the software also supports the needs of speech therapists, singing instructors and singers.

- Individual progress monitoring of voice development
- Objectification and visualization of the quality and capability of the human voice
- Pre and post-therapy comparisons of vocal efficiency parameters via sound analysis
- Possible voice analysis by speech therapists and singing instructors in addition to examinations by medical specialists
- Utilization of the results of the non-invasive voice analysis for voice therapy therapeutic feedback
- Complete patient and examination management
- Integration in clinic and practice networks

Microphone headset

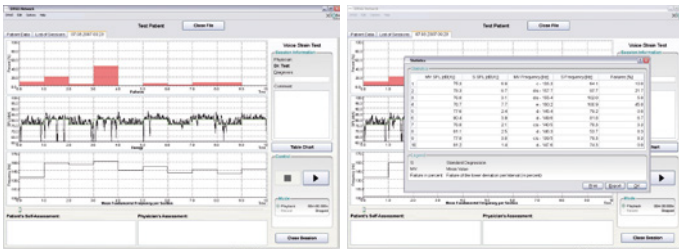
The XION microphone headset enables the realization of speech and singing voice profile measurements, voice analyses and strain tests under reproducible conditions. The headset is extremely lightweight and guarantees a defined microphone-to-mouth distance at all times. The special, built-in electronics ensure automatic calibration of the microphone connection and electrical safety. The microphone headset can be connected to any PC via the USB plug.





Speech and singing voice range profile

The significance and efficiency of the voice range profile measurement is drastically increased due to various new opportunities. These include, e.g., the calculation and real-time display of the efficiency range for each and every vocal tone. This means it is now possible to show individual vocal tones or the entire audio sequence. Furthermore, the range of the entire recording can be calculated and displayed parallel to the voice range profile. Additionally, the Dysphonia Severity Index (DSI), the phonation time and the jitter can be measured, and comparison voice range profiles integrated.

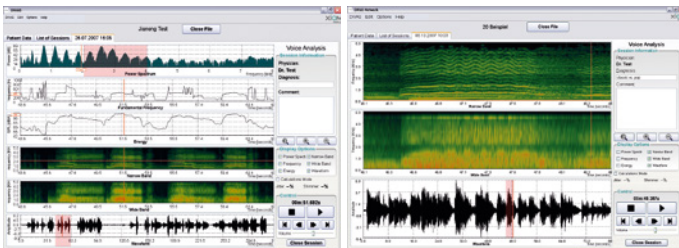


The evaluation includes:

- Lower SPL deviation in percent per strain level
- The actual SPL during the time period with the exceeding of upper and lower limits
- The mean speech voice frequency per strain level
- Automatic statistics as MS Excel spreadsheets
- Sequence replay and free navigation in the audio track along the volume curve
- Findings and self-assessment

Voice strain test

During a voice strain test, the test person reads a text with varying loudness targets. The sound pressure level (SPL) and the fundamental frequency are measured in real-time. To ensure self-monitoring and motivation, the test person receives feedback during the test; changing screen colours indicate when the voice exceeds upper or lower target levels. The strain levels, test duration and speaking volume can be freely configured.



Recorded values and diagrams:

- Efficiency range
- Fundamental frequency
- Sound level
- Broad-band spectrogram
- Narrow-band spectrogram
- Shimmer
- Jitter

Voice analysis

The oscillogram, harmonic waves, calculated via Fast Fourier Transformation (FFT), and their intensity, as well as the narrow or broad-band spectrum can be displayed in real-time while recording the voice signal. All the parameters can be displayed together in just one image or compared in different combinations. It is also possible to select desired areas and display them more detailed.



XION ENT systems

XION ENT endoscopy systems support all applications in ENT medicine. The system components form a compact, functional unit and offer excellent convenience with optimum image quality.