

September 20, 2024

Dear customer,

PATH MEDICAL is pleased to announce the release of new Senti and Sentiero device firmware (2.9) and Mira PC software (2.5.0).

The main updates of firmware 2.9, 2.9.1, 2.9.2, **2.9.3** and Mira 2.5.0, 2.5.1, 2.5.2, **2.5.3** are described below. Please pay particular attention to the important information described in chapter 3 ("Important Notices").

1. FIRMWARE MODULES AND FEATURE UPDATES

The following new features are now available with Senti/Sentiero firmware:

- **ABR:**

- Option for probe stability check in AEP preferences (2.9.1):
When using a probe for Quick ABR, the probe fit is observed during the recording by monitoring the stimulus amplitude during periodic impedance check. The recording is paused if the probe fit has significantly changed. The probe is re-calibrated and the test is resumed after successful recalibration.
- Improved robustness to EEG signals with periodic noise is implemented.
- For masking noise levels > 70 dB HL a warning message regarding high levels is shown.
- No masking noise played in no-stimulus mode (2.9.1).

- **ECochG:**

- Optimized curve scaling is implemented, which prevents large artefacts from covering small signals.
- Optional 10 Hz high-pass filter has been added.

- **eABR:**

- Optimized curve scaling is implemented, which prevents large artefacts from covering small signals.
- When using a simulator an extended impedance range can be skipped.

- **Otoacoustic Emissions:**

- A play and pause button are introduced during TEOAE measurements.
- For TEOAE Quick the maximum timeout is extended to improve the TEOAE detection threshold. An early refer criterion saves test time when no signals are detected.
- Probe calibration screen freeze in "simple" mode fixed (2.9.1).
- DPOAE result not overwritten if individual frequencies are retested (2.9.2).

- **Tympanometry:**

- For the non-perforated eardrum test traces are now indicated with the respective pressure.
- Green status icon is shown for detected type A tympanogram.
- Auto store option introduced, which lets the device proceed to the result screen after the tympanometry test to support immediate data transfer.
- E-SRT module available upon request and for evaluation only (2.9.1).
- E-SRT module available upon request (2.9.2).
- Multi-frequency reflex available upon request (2.9.2).
- Modify peak validity for tympanograms with max. amplitudes below normative area in 226 Hz mode **(2.9.3)**.

- **Vestibular Evoked Myogenic Potentials (VEMP)**

- Optimized curve scaling is implemented, which prevents large artefacts from covering small signals.
- For stimulus levels > 95 dB HL a warning message appears when starting the test. This reminds the user that a high stimulus level will be applied and requiring confirmation to start the test.

- **Miscellaneous**

- TEOAE Quick, TEOAE Diagnostic, DPOAE Quick, Quick ABR and Quick ASSR will provide the pass/refer text next to the test result icon.
- Hungarian MATCH version now included upon request and for evaluation only.
- Last name, first name order for printout.
- New user interface languages: Albanian, Danish, Estonian, Greek, Indonesian, Slovak.
- Improved translations for user interface languages (2.9.1, 2.9.2).
- Chinese Pinyin characters recognized.

- Preset name or test level are shown with the completed test in the test list.
- Cursor can be positioned by tapping in between words, deleting whole word with long tap possible.
- Character X added to Cyrillic keyboard.
- Screenshot printout fixed, preventing device stalling.
- Loopback test interval is extended to two years. One year interval remains the recommendation.
- Extended patient search criteria: all fields of the patient configuration can be searched.
- Energy options unlocked (2.9.1).
- Direct Print via Remote Tool fixed (2.9.2).
- User rights not adapted after patient import via Mira (2.9.2).
- Option to dim LCD backlight when battery is low **(2.9.3)**.
- Improvement of device battery behaviour **(2.9.3)**.
- Patient ID formatting fixed **(2.9.3)**.

2. PC SOFTWARE

- **Mira:**

- Enhanced GDT 8402 configuration.
- The ABR result shows amplitude of Wave I and Wave III again.
- “Freiburger” audiogram in side-by-side report consistent with device view (2.5.2, **2.5.3**).
- Ukrainian user interface language added **(2.5.3)**.
- Green status icon is shown for detected type A tympanogram **(2.5.3)**.
- “Incomplete” result icon consistent with device view **(2.5.3)**.

3. IMPORTANT NOTICES

Please read the following important information carefully and make sure to inform your customers about this information.



PATH MEDICAL STRONGLY RECOMMENDS TO USE THE LATEST MIRA AND THE LATEST PATH SERVICE TOOL INCLUDING THE LATEST SPEECH SAMPLES AND FIRMWARE AND TO UPDATE ALL DEVICES WITH THE LATEST FIRMWARE BY USING MIRA OR THE

PATH SERVICE TOOL UPDATE FUNCTION. PLEASE NOTE THAT SOME DEVICE TYPES ARE NOT RECOGNIZED BY OLDER MIRA AND PATH SERVICE TOOL VERSIONS.



WHEN UPDATING DEVICE FIRMWARE, THE TEST MODULE PARAMETERS ON THE DEVICE MAY BE RESET TO FACTORY PRESETS UNDER SPECIAL CIRCUMSTANCES (E.G. WHEN UPDATING DEVICES WITH FIRMWARE 1.6.4485 OR LOWER), I.E. INDIVIDUALLY SET TEST MODULE PARAMETERS MAY BE OVERWRITTEN. THEREFORE, PLEASE MAKE SURE TO KEEP TRACK OF INDIVIDUAL PARAMETERS BEFORE UPDATING THE FIRMWARE.

4. GENERAL INFORMATION

For service requests (i.e., technical or handling problems) regarding Senti and Sentiero hardware, firmware or software and related accessories and service tools please contact PATH MEDICAL service at service@pathme.de.

For further information about PATH MEDICAL products please refer to <http://www.pathme.de> or contact info@pathme.de.
