Release Notes

V 3.0.0 (release on 2024-02-29)

- first release of ARCSolver under MDR

Features and improvements

- Added license control for post market surveillance
- ARCSolver is now stand-alone microservice
- Removed deprecated input parameter "sigtype"
- Separated input parameter "flag" into "calibration" & "huckDetection" for better readability

Bug fixes:

- change to 64-bit data types to improve inter-platform compatibility
- Minor bugfix in calculation of AIX based on 3rd derivative
- Abort when more than 30 pulse waves are detected (to prevent memory overflow)
- Abort if hr < 40 or hr > 140 during calculation to stay within defined physiological boundaries

Overview of previous releases of ARCSolver as non-medical device

Date	Version	ChangeLog
19.03.2019	2.0.2	• Not for general use! • SV calculation optimization
06.07.2017	2.0.1	• check for poor end-diastolic signal quality ("Huck", probably due to wrong recording pressure) set error code to 1 when poor quality detected • enable / disable end-diastolic signal quality detection ("Huck") using map_flag
09.12.2015	**2.0.0**	• **Removed debug output from developer version for production version 1.8.a**
03.12.2015	1.8.a	• DEVELOPER VERSION WITH SENSITIVE DEBUG ISSUE! • Pulse wave analysis identical to 1.7.2 • Conversion to encrypted input data • Instead of the parameter signal of the type double[1000], which represents ADC values, raw data of the type double[1533 .. 2033] are now passed, which represent encrypted and possibly packed byte values.

Date	Version	ChangeLog
22.04.2014	**1.7.2**	• **Bugfix: In exceptional cases, the check as to whether the AIx is too high was not carried out** • **Bugfix: Improving the central curve at the inflection point sometimes caused the calculation to crash** • **Bug fix for evaluation with mean pressure calibration**
08.09.2015	**1.7.2.S.1**	• **Release for Schiller AG, Delphi based.**
18.12.2013	1.7.0	• Improvements for central pulse wave form estimation
22.02.2012	1.6.5	• Improvement of the AIx calculation for large AIx values • Improvement of optimization from rel. 1.6.4
10.02.2012	1.6.4	• Correction for flattening curves (e.g. nitro administration) • Removal of calculation for individual curves
25.01.2012	**1.6.3**	• **Optimization of the calculation of the stroke volume when specifying the mean pressure** • **Correction in the PWV calculation for children**
04.10.2011	1.6.2	• Improved Vascular Age calculation
15.07.2011	1.6.1	• Bugfix: Optional calibration was not applied to the radial pulse curve. Was corrected.
08.04.2011	1.6.0	• Optional transfer and calibration of the central pulse curve with the peripheral mean pressure
01.04.2011	**1.5.2**	• **Optimization in the PWV and AIx calculation**
17.02.2011	1.5.1	• Improved AIx calculation and plausibility check
21.09.2010	1.5.0	• New Feature: Vascular Age calculation
18.08.2010	1.4.5	• First release integrated into commercial 24h blood pressure monitor Mobil-O-Graph (IEM)