

SafeBoosC NIRS Software validation report

Essential features:

The communication between NIRS device and the SafeBoosC software is digital, i.e. does not need calibration.

All NIRS devices use an error-free data protocol, but the software checks the format of the values coming from the device.

The Software works with the internal computer clock and supports any data rate of the input values. Data is stored exactly as received with time stamping.

Periodically (every few minutes) the Software saves data in the temporary folder (c:/Program files/SafeboosC/Studies/xxx) and the user can recover the values if the Software or the computer come to an unexpected halt.

External validation

1. The Software was tested with a custom made testing software. This software creates no value, out of range values, corrupt values, etc. All errors were correctly identified.
2. NIRS devices store data in their internal memory. This data can be saved to an external USB memory device for further analysis. Using a matlab script, this data has been compared to the data stored by the Software in two randomly chosen 72 hour recordings from the Danish participants in the SafeBoosC phase-II trial. The data was identical.

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