

neo monitor 1.5.3 release notes

1. Version 1.5.3

1.1 New features since version 1.5.2

Description	Internal ID
NA	

1.2 Changes since version 1.5.2

Description	Internal ID
NA	

1.3 Bug fixes since version 1.5.2

Description	Internal issue ID
[IMPROVEMENT] Improved Error-handling for ultra long recordings (EE-511, Windows 11)	BUG-002722

1.4 Limitations and Known problems since version 1.5.2

Description	Internal issue ID
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible</i>	000028
After segment border in auto play the EEG can show as flat line unless the autoplay is stopped <i>Comment: Only relevant during review and immediately fixed when interacting with the UI</i>	001263
normal user can reach windows desktop <i>Comment: It was evaluated that the access to windows desktop is difficult, requiring effort and is not recognized under normal use. Further, this feature does not affect the functionality of the medical intended purpose for neo software 1.5.1.</i>	002462
If ongoing recordings are reviewed by more than one neo review client the performance of the views is slowed <i>Comment: Only holds for review clients and does not affect the main monitoring device</i>	002572
Change of display from EEG to aEEG not smooth <i>Comment: Not a functional issue for the user, only a minor display flaw.</i>	002575
Only one annotation is displayed when annotations fall on the same screen pixel <i>Comment: This limitation occurs very seldomly, future release will prioritize the most important.</i>	002587
Annotations can only be set to times where EEG is recorded <i>Comment: In the rare case where a recording is interrupted, e.g., amplifier disconnect, the user could potentially 'browse' in review mode to the non-recorded 'gap' period, and cannot set an annotation in the gap. It would rather be positioned directly on the EEG segment border</i>	002588

Special Impedance mode for needle electrodes only supports values "0" and "inf" (connected / not connected). This doesn't apply for eego amplifier EE-511 <i>Comment: Subcutaneous electrodes will exhibit a low impedance that can be approximated to be below 1 kOhm in the signal frequency range relevant for standard neonatal EEG. In contrast to non-invasive surface electrodes, only a binary zero or INF display is meaningful for the user</i>	002589
On some hardware, additional EEG segments are created during monitoring. This does not affect the ACL all-in-one PC shipped with the nēo system ES-820 <i>Comment: ACL is the only configuration used for clinical systems</i>	002590
Changed annotation color is not applied if old annotations are present <i>Comment: Persistence of the color per event marker type is not a big problem, since a user will seldomly change this the after (optionally) setting his/her preference</i>	002592
Reset review password is required after upgrading from neo 1.1 to neo 1.2.3 and from neo 1.5.0 to neo 1.5.1 <i>Comment: A very minor nuisance only, which can be handled by the technician performing the upgrade</i>	002593
On some hardware and keyboard languages, on-screen keyboard input does not appear in the Custom Annotation dialog. Not applicable to ACL all-in-one PC with nēo system ES-820 <i>Comment: Not an issue on ACL as used for clinical systems</i>	002594
Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG</i>	002595
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring <i>Comment: Very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability</i>	002596
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors <i>Comment: Not applicable to ACL devices used in clinical systems</i>	002597
In rare cases, the Windows OS schedules some maintenance on the SQL server, which leads to a database error and stop of neo <i>Comment: This has only been observed for very prolonged recordings (> 32h overnight)</i>	002598
The total recording time displayed in the recordings table does not account for times where no EEG was measured, e.g. Impedance or amplifier disconnect <i>Comment: This is considered a minor issue, where these non-EEG periods will be short compared to the recording length</i>	002599
Custom annotations remain in original language and are not localized after language change <i>Comment: Custom annotations are user-generated content and are stored in the language used at the time of creation. The system does not apply automatic translation to these entries when the application language is changed. This behavior is by design to preserve the original user input and avoid potential misinterpretation due to automated translation</i>	002600

When using subcutaneous steel needle electrodes and a 3-minute automatic impedance check interval, the resulting artifact during low-voltage EEG may appear similar to a burst-suppression (BS) pattern in the aEEG	002601
<i>Comment: The resulting trace is typically regular and monomorphic. In the corresponding EEG, the non-physiological nature of the artifact should be recognizable by the user. In version 1.4 and after, the minimum interval for automatic impedance checks is 10 minutes.</i>	

2. Version 1.5.2

2.1 New features since version 1.5.1

Description	Internal ID
NA	

2.2 Changes since version 1.5.1

Description	Internal ID
NA	

2.3 Bug fixes since version 1.5.1

Description	Internal issue ID
[Improvement] color definition is shifted to config	BUG-002602
[Improvement] error handling improved (short term host resource management)	BUG-002657
[Improvement] Lead on detection as optional indication (by default off)	BUG-002694

2.4 Limitations and Known problems since version 1.5.1

Description	Internal issue ID
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible</i>	000028
After segment border in auto play the EEG can show as flat line unless the autoplay is stopped <i>Comment: Only relevant during review and immediately fixed when interacting with the UI</i>	001263
normal user can reach windows desktop <i>Comment: It was evaluated that the access to windows desktop is difficult, requiring effort and is not recognized under normal use. Further, this feature does not affect the functionality of the medical intended purpose for neo software 1.5.1.</i>	002462
If ongoing recordings are reviewed by more than one neo review client the performance of the views is slowed <i>Comment: Only holds for review clients and does not affect the main monitoring device</i>	002572
Change of display from EEG to aEEG not smooth <i>Comment: Not a functional issue for the user, only a minor display flaw.</i>	002575
Only one annotation is displayed when annotations fall on the same screen pixel <i>Comment: This limitation occurs very seldomly, future release will prioritize the most important.</i>	002587

Annotations can only be set to times where EEG is recorded <i>Comment: In the rare case where a recording is interrupted, e.g., amplifier disconnect, the user could potentially 'browse' in review mode to the non-recorded 'gap' period, and cannot set an annotation in the gap. It would rather be positioned directly on the EEG segment border</i>	002588
Special Impedance mode for needle electrodes only supports values "0" and "inf" (connected / not connected). This doesn't apply for eego amplifier EE-511 <i>Comment: Subcutaneous electrodes will exhibit a low impedance that can be approximated to be below 1 kOhm in the signal frequency range relevant for standard neonatal EEG. In contrast to non-invasive surface electrodes, only a binary zero or INF display is meaningful for the user</i>	002589
On some hardware, additional EEG segments are created during monitoring. This does not affect the ACL all-in-one PC shipped with the nēo system ES-820 <i>Comment: ACL is the only configuration used for clinical systems</i>	002590
Changed annotation color is not applied if old annotations are present <i>Comment: Persistence of the color per event marker type is not a big problem, since a user will seldomly change this the after (optionally) setting his/her preference</i>	002592
Reset review password is required after upgrading from neo 1.1 to neo 1.2.3 and from neo 1.5.0 to neo 1.5.1 <i>Comment: A very minor nuisance only, which can be handled by the technician performing the upgrade</i>	002593
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Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG</i>	002595
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring <i>Comment: Very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability</i>	002596
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors <i>Comment: Not applicable to ACL devices used in clinical systems</i>	002597
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3. Version 1.5.1

3.1 New features since version 1.5.0

Description	Internal ID
About Page	009639
Lead on detection	009637

3.2 Changes since version 1.5.0

Description	Internal ID
Review password protection	002020

3.3 Bug fixes since version 1.5.0

Description	Internal issue ID
Repair fails when merging patients with associated recordings requiring repair	BUG-002147
Default annotations are not translated to the local language upon creation	BUG-002149
Export path setting cannot be updated if previously set path becomes invalid	BUG-002150
Missing translations in nêo user interface	BUG-002352
Report and preview remain in English despite available translations	BUG-002372
Missing space between surname and name in nêo message	BUG-002558
"Index out of range" exception causes nêo review to become unresponsive while other modules remain functional	BUG-002571

3.4 Limitations and Known problems since version 1.5.0

Description	Internal issue ID
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible</i>	000028
After segment border in auto play the EEG can show as flat line unless the autoplay is stopped <i>Comment: Only relevant during review and immediately fixed when interacting with the UI</i>	001263
normal user can reach windows desktop <i>Comment: It was evaluated that the access to windows desktop is difficult, requiring effort and is not recognized under normal use. Further, this feature does not affect the functionality of the medical intended purpose for neo software 1.5.1.</i>	002462
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Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG</i>	002595
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring <i>Comment: Very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability</i>	002596
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors <i>Comment: Not applicable to ACL devices used in clinical systems</i>	002597
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Custom annotations remain in original language and are not localized after language change <i>Comment: Custom annotations are user-generated content and are stored in the language used at the time of creation. The system does not apply automatic translation to these entries when the application language is changed. This behavior is by design to preserve the original user input and avoid potential misinterpretation due to automated translation</i>	002600
When using subcutaneous steel needle electrodes and a 3-minute automatic impedance check interval, the resulting artifact during low-voltage EEG may appear similar to a burst-suppression (BS) pattern in the aEEG <i>Comment: The resulting trace is typically regular and monomorphic. In the corresponding EEG, the non-physiological nature of the artifact should be recognizable by the user. In version 1.4 and after, the minimum interval for automatic impedance checks is 10 minutes.</i>	002601

4. Version 1.5.0

4.1 New features since version 1.4.6

Description	Internal ID
neo review application (identical to neo monitor but excludes all recording workflows) – intended for independent review during and after recording	008141
neo monitor supports networking interfaces to datworks suite services (Sales Package)	009499
Optional centralized persistence via datwork EsStorage service shared by multiple neo clients - local recording copy in case of network disconnects – automatic upload after recording ends	008735
Optional connection to HIS for networked configuration supporting HL7 for patients, Cases, Orders and Reports	008910
Reports on patient recordings (workflow, persistence, HL7 communication)	008895
Orders and Cases for patient recordings	009522
HIS Patient management via HL7 (creation, editing, merging, deletion), parallel option for isolated neo patients	008910
Control of individual Users and User group control for networked setups via ADFS and datworks.	009524

4.2 Changes since version 1.4.6

Description	Internal ID
NA	

4.3 Bug fixes since version 1.4.6

Description	Internal issue ID
Seizure detection can be used with LAN connection	
Data update watchdog does not notify the user if a performance problem could be overcome automatically. Instead, the warning message from the detection of the performance problem persists on screen.	000276

4.4 Limitations and Known problems since version 1.4.6

Description	Internal issue ID
This version was verified and validated for a maximum of 5 neo monitoring recording clients plus 3 neo review clients. Network setups with more clients can currently only be considered with detailed verification and validation on site and support by the clinic involved. <i>Comment: this is controlled via documentation and training. Extensions will come with upcoming releases based on market demand</i>	009526
In case of a patient merge while recordings are still to be uploaded after a network disconnect the upload fails <i>Comment: merging of patients is very rare in general and is a network disconnect during recording. The likelihood that both occur at the same time is very low. In case it still occurs support can manually merge the recording into the central persistence</i>	002147
If ongoing recordings are reviewed by more than one neo review client the performance of the views is slowed <i>Comment: Only holds for review clients and does not affect the main monitoring device</i>	
Only one annotation is displayed when annotations fall on the same screen pixel <i>Comment: this limitation occurs very seldomly, future release will prioritize the most important.</i>	004934

Annotations can only be set to times where EEG is recorded. <i>Comment: in the rare case where a recording is interrupted, e.g., amplifier disconnect, the user could potentially 'browse' in review mode to the non-recorded 'gap' period, and cannot set an annotation in the gap. It would rather be positioned directly on the EEG segment border</i>	004935
Special Impedance mode for needle electrodes only supports values "0" and "inf" (connected / not connected). <i>This does apply for eego amplifier EE-511.</i> <i>Comment: subcutaneous electrodes will exhibit a low impedance that can be approximated to be below 1 kOhm in the signal frequency range relevant for standard neonatal EEG. In contrast to non-invasive surface electrodes, only a binary zero or INF display is meaningful for the user</i>	
When using subcutaneous steel needle electrodes for recording EEG with the device, with the setting of the interval for automatic impedance check at 3 minutes, in the case of low-voltage EEG activity, the signal artifact resulting from the impedance check, at first sight, might be observed as a burst-suppression (BS) pattern in the aEEG. <i>Comment: The resulting trace is typically regular and mono-morph. In the related EEG pattern, the user should identify the non-physiological nature of the signal. In version 1.4 the minimal interval is 10 minutes.</i>	007579
In case the export path in the settings is becoming invalid e.g. by removing an external storage device it is no longer possible to change and save setting until the path is corrected to a valid path. <i>Comment: Work around is simple and not needed for any frequently used workflow</i>	002150
On some hardware, additional EEG segments are created during monitoring. This does not affect the ACL all-in-one PC shipped with the nêo system ES-820. <i>Comment: ACL is the only configuration used for clinical systems.</i>	004683
Change of display from EEG to aEEG not smooth <i>Comment: not a functional issue for the user, only a minor display flaw.</i>	004171
Changed annotation color is not applied if old annotations are present. <i>Comment: persistence of the colour per event marker type is not a big problem, since a user will seldomly change this the after (optionally) setting his/her preference</i>	004890
The total recording time displayed in the recordings table does not account for times where no EEG was measured, e.g. Impedance or amplifier disconnect. <i>Comment: this is considered a minor issue, where these non-EEG periods will be short compared to the recording length.</i>	004905
In rare cases, the Windows OS schedules some maintenance on the SQL server, which leads to a database error and stop of neo. <i>Comment: this has only been observed for very prolonged recordings (> 32h overnight).</i>	004914
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors. <i>Comment: not an issue on ACL as used for clinical systems</i>	004916
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring. <i>Comment: very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability.</i>	004919
Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view. <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG</i>	005025
On some hardware, for some keyboard languages, the letters entered via the on-screen touch keyboard do not appear in the Custom Annotation dialog. This does not affect the ACL all-in-one PC shipped with the nêo system ES-820 in any of the supported languages. <i>Comment: not an issue on ACL as used for clinical systems</i>	005398
Reset review password is required after upgrading from neo 1.1 to neo 1.2.3 <i>Comment: a very minor nuisance only, which can be handled by the technician performing the upgrade.</i>	005458
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible</i>	000028
After segment border in auto play the EEG can show as flat line unless the autoplay is stopped <i>Comment: Only relevant during review and immediately fixed when interacting with the UI</i>	001263
Default annotation names are not translated to local language in neo 1.5. Clients can be set individually to any language changing the UI language but the central persistence remains either in English or in case of update from earlier versions in the language the database was originally created. The annotations names are part of the data and thus not translated. <i>Comment: Manually the user or support can always create new events with the desired language</i>	002149

5. Version 1.4.6

5.1 New features since version 1.4.5

Description	Internal ID
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Added option in technical setup - column to show validation check per recording	008521
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5.2 Changes since version 1.4.5

Description	Internal ID
Extended segment correction method for all segments and events	008523

5.3 Bug fixes since version 1.4.5

Description	Internal issue ID
Improved annotation side panel	BUG-000959
	BUG-000990
Improved amplifier re-attached behaviour	BUG-000956
Improved sync between EEG/aEEG cursor when selecting an annotation	BUG-000965
	BUG-001022
Fixed scrolling issue	BUG-000979
Fixed time stamp on custom annotation insertion	BUG-000987
Fixed export issue	BUG-001014
Added birth weight	BUG-000992
Fixed channel subset selection for HardwareSetups	BUG-001008
	BUG-001009
Segment and Event length check and correction method is not always effective	BUG-000976

5.4 Limitations and Known problems since version 1.4.5

Description	Internal issue ID
When using automated seizure detection during monitoring the device must not be connected via LAN cable as all resources are needed by the application. <i>Comment: neo monitor systems are stand-alone devices and only to be connected to the LAN infrastructure in case of technical activities when no monitoring is ongoing</i>	
Only one annotation is displayed when annotations fall on the same screen pixel. <i>Comment: this limitation occurs very seldomly, future release will prioritize the most important</i>	004934
Annotations can only be set to times where EEG is recorded <i>Comment: in the rare case where a recording is interrupted, e.g., amplifier disconnect, the user could potentially 'browse' in review mode to the non-recorded 'gap' period, and cannot set an annotation in the gap. It would rather be positioned directly on the EEG segment border</i>	004935
Special Impedance mode for needle electrodes only supports values "0" and "inf" (connected / not connected). <i>This does apply for eego amplifier EE-511.</i> <i>Comment: subcutaneous electrodes will exhibit a low impedance that can be approximated to be below 1 kOhm in the signal frequency range relevant for standard neonatal EEG. In contrast to non-invasive surface electrodes, only a binary zero or INF display is meaningful for the user</i>	
When using subcutaneous steel needle electrodes for recording EEG with the device, with the setting of the interval for automatic impedance check at 3 minutes, in the case of low-voltage EEG activity, the signal artifact resulting from the impedance check, at first sight, might be observed as a burst-suppression (BS) pattern in the aEEG. <i>Comment: The resulting trace is typically regular and mono-morph. In the related EEG pattern, the user should identify the non-physiological nature of the signal. In version 1.4 the minimal interval is 10 minutes.</i>	007579
On some hardware, additional EEG segments are created during monitoring. This does not affect the ACL all-in-one PC shipped with the nēo system ES-820. <i>Comment: ACL is the only configuration used for clinical systems.</i>	004683
Change of display from EEG to aEEG not smooth <i>Comment: not a functional issue for the user, only a minor display flaw.</i>	004171
Changed annotation color is not applied if old annotations are present. <i>Comment: persistence of the colour per event marker type is not a big problem, since a user will seldomly change this the after (optionally) setting his/her preference</i>	004890

The total recording time displayed in the recordings table does not account for times where no EEG was measured, e.g. Impedance or amplifier disconnect. <i>Comment: this is considered a minor issue, where these non-EEG periods will be short compared to the recording length.</i>	004905
In rare cases, the Windows OS schedules some maintenance on the SQL server, which leads to a database error and stop of neo. <i>Comment: this has only been observed for very prolonged recordings (> 32h overnight).</i>	004914
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors. <i>Comment: not an issue on ACL as used for clinical systems</i>	004916
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring. <i>Comment: very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability.</i>	004919
Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view. <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG</i>	005025
On some hardware, for some keyboard languages, the letters entered via the on-screen touch keyboard do not appear in the Custom Annotation dialog. This does not affect the ACL all-in-one PC shipped with the nēo system ES-820 in any of the supported languages. <i>Comment: not an issue on ACL as used for clinical systems</i>	005398
Reset review password is required after upgrading from neo 1.1 to neo 1.2.3 <i>Comment: a very minor nuisance only, which can be handled by the technician performing the upgrade.</i>	005458
Data update watchdog does not notify the user if a performance problem could be overcome automatically. Instead, the warning message from the detection of the performance problem persists on screen. <i>Comment: (rare case in prolonged recording, and no data loss observed) - when this message stays on screen, the user can see normal behaviour in the rest of the display and can click the 'OK' button in the message. Fixed in the watchdog log, further improvement to remove the warning message and still inform user of potential performance issue (with time indication).</i>	000276
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible.</i>	000028

6. Version 1.4.5

6.1 New features since version 1.4.4

Description	Internal ID
NA	

6.2 Changes since version 1.4.4

Description	Internal ID
Database version 7.1.24.0	

6.3 Bug fixes since version 1.4.4

Description	Internal issue ID
Correct time of birth user control in regards to localization	BUG-000919
Prevented failure while adding a patient after config-file was deleted	BUG-000924
Improved amplifier disconnected handling	BUG-000956
Fixed annotation list's disabled state after info page transition	BUG-000959
Corrected corner case database upgrade from 1.4.3	BUG-000917

6.4 Limitations and Known problems since version 1.4.4

Description	Internal issue ID
When using automated seizure detection during monitoring the device must not be connected via LAN cable as all resources are needed by the application. <i>Comment: neo monitor systems are stand-alone devices and only to be connected to the LAN infrastructure in case of technical activities when no monitoring is ongoing.</i>	

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In rare cases, the Windows OS schedules some maintenance on the SQL server, which leads to a database error and stop of neo. <i>Comment: this has only been observed for very prolonged recordings (> 32h overnight).</i>	004914
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors. <i>Comment: not an issue on ACL as used for clinical systems</i>	004916
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring. <i>Comment: very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability.</i>	004919
Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view. <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG</i>	005025
On some hardware, for some keyboard languages, the letters entered via the on-screen touch keyboard do not appear in the Custom Annotation dialog. This does not affect the ACL all-in-one PC shipped with the nêo system ES-820 in any of the supported languages. <i>Comment: not an issue on ACL as used for clinical systems</i>	005398
Reset review password is required after upgrading from neo 1.1 to neo 1.2.3 <i>Comment: a very minor nuisance only, which can be handled by the technician performing the upgrade.</i>	005458
Data update watchdog does not notify the user if a performance problem could be overcome automatically. Instead, the warning message from the detection of the performance problem persists on screen. <i>Comment: (rare case in prolonged recording, and no data loss observed) - when this message stays on screen, the user can see normal behaviour in the rest of the display and can click the 'OK' button in the message. Fixed in the watchdog log, further improvement to remove the warning message and still inform user of potential performance issue (with time indication).</i>	000276
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible.</i>	000028

7. Version 1.4.4

7.1 New features since version 1.4.3

Description	Internal ID
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Automatic replay of EEG	008022
Side pane displaying event list	008025

7.2 Changes since version 1.4.3

Description	Internal ID
Improved validity check of recordings related to export	0841
Extended amount of saved log files (to approx. 1 year)	0532
Hide clinical settings per settings flag (default: visible)	8178
Allow reference channel to be the active channel in montages	8171

7.3 Bug fixes since version 1.4.3

Description	Internal issue ID
Filter improvement on data export	BUG-000681
neo shuts down while export is started; exception: cannot find file for this segment	BUG-000846
neo export fails with some "cannot read Histogram header" exception	BUG-000847
Protocol shown in a wrong sorting	BUG-000866
Always show user the option to save when cancelling patient creation	BUG-000871
Save button on recovery page turn invisible	BUG-000883

7.4 Limitations and Known problems since version 1.4.3

Description	Internal issue ID
When using automated seizure detection during monitoring the device must not be connected via LAN cable as all resources are needed by the application. <i>Comment: neo monitor systems are stand-alone devices and only to be connected to the LAN infrastructure in case of technical activities when no monitoring is ongoing</i>	
Only one annotation is displayed when annotations fall on the same screen pixel. <i>Comment: this limitation occurs very seldomly, future release will prioritize the most important</i>	004934
Annotations can only be set to times where EEG is recorded <i>Comment: in the rare case where a recording is interrupted, e.g., amplifier disconnect, the user could potentially 'browse' in review mode to the non-recorded 'gap' period, and cannot set an annotation in the gap. It would rather be positioned directly on the EEG segment border</i>	004935
Special Impedance mode for needle electrodes only supports values "0" and "inf" (connected / not connected). <i>This does apply for eego amplifier EE-511.</i> <i>Comment: subcutaneous electrodes will exhibit a low impedance that can be approximated to be below 1 kOhm in the signal frequency range relevant for standard neonatal EEG. In contrast to non-invasive surface electrodes, only a binary zero or INF display is meaningful for the user</i>	
When using subcutaneous steel needle electrodes for recording EEG with the device, with the setting of the interval for automatic impedance check at 3 minutes, in the case of low-voltage EEG activity, the signal artifact resulting from the impedance check, at first sight, might be observed as a burst-suppression (BS) pattern in the aEEG. <i>Comment: The resulting trace is typically regular and mono-morph. In the related EEG pattern, the user should identify the non-physiological nature of the signal. In version 1.4 the minimal interval is 10 minutes.</i>	007579
On some hardware, additional EEG segments are created during monitoring. This does not affect the ACL all-in-one PC shipped with the nēo system ES-820. <i>Comment: ACL is the only configuration used for clinical systems.</i>	004683
Change of display from EEG to aEEG not smooth <i>Comment: not a functional issue for the user, only a minor display flaw.</i>	004171
Changed annotation color is not applied if old annotations are present. <i>Comment: persistence of the colour per event marker type is not a big problem, since a user will seldomly change this the after (optionally) setting his/her preference.</i>	004890
The total recording time displayed in the recordings table does not account for times where no EEG was measured, e.g. Impedance or amplifier disconnect. <i>Comment: this is considered a minor issue, where these non-EEG periods will be short compared to the recording length.</i>	004905

In rare cases, the Windows OS schedules some maintenance on the SQL server, which leads to a database error and stop of neo. <i>Comment: this has only been observed for very prolonged recordings (> 32h overnight).</i>	004914
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors. <i>Comment: not an issue on ACL as used for clinical systems.</i>	004916
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring. <i>Comment: very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability.</i>	004919
Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view. <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG</i>	005025
On some hardware, for some keyboard languages, the letters entered via the on-screen touch keyboard do not appear in the Custom Annotation dialog. This does not affect the ACL all-in-one PC shipped with the nēo system ES-820 in any of the supported languages. <i>Comment: not an issue on ACL as used for clinical systems</i>	005398
Reset review password is required after upgrading from neo 1.1 to neo 1.2.3 <i>Comment: a very minor nuisance only, which can be handled by the technician performing the upgrade.</i>	005458
Data update watchdog does not notify the user if a performance problem could be overcome automatically. Instead, the warning message from the detection of the performance problem persists on screen. <i>Comment: (rare case in prolonged recording, and no data loss observed) - when this message stays on screen, the user can see normal behaviour in the rest of the display and can click the 'OK' button in the message. Fixed in the watchdog log, further improvement to remove the warning message and still inform user of potential performance issue (with time indication).</i>	000276
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible.</i>	000028

8. Version 1.4.3

8.1 New features since version 1.4.2

Description	Internal ID
NA	

8.2 Changes since version 1.4.2

Description	Internal ID
Adjustment of the impedance algorithm for EE-511 to optimize function for all electrode types	

8.3 Bug fixes since version 1.4.2

Description	Internal issue ID
Export constraints	BUG-000556, BUG-000579

8.4 Limitations and Known problems since version 1.4.2

Description	Internal issue ID
When using automated seizure detection during monitoring the device must not be connected via LAN cable as all resources are needed by the application. <i>Comment: neo monitor systems are stand-alone devices and only to be connected to the LAN infrastructure in case of technical activities when no monitoring is ongoing.</i>	
Only one annotation is displayed when annotations fall on the same screen pixel. <i>Comment: this limitation occurs very seldomly, future release will prioritize the most important.</i>	004934
Annotations can only be set to times where EEG is recorded <i>Comment: in the rare case where a recording is interrupted, e.g., amplifier disconnect, the user could potentially 'browse' in review mode to the non-recorded 'gap' period, and cannot set an annotation in the gap. It would rather be positioned directly on the EEG segment border.</i>	004935

Special Impedance mode for needle electrodes only supports values "0" and "inf" (connected / not connected). <i>This does apply for eego amplifier EE-511.</i> <i>Comment: subcutaneous electrodes will exhibit a low impedance that can be approximated to be below 1 kOhm in the signal frequency range relevant for standard neonatal EEG. In contrast to non-invasive surface electrodes, only a binary zero or INF display is meaningful for the user.</i>	
When using subcutaneous steel needle electrodes for recording EEG with the device, with the setting of the interval for automatic impedance check at 3 minutes, in the case of low-voltage EEG activity, the signal artifact resulting from the impedance check, at first sight, might be observed as a burst-suppression (BS) pattern in the aEEG. <i>Comment: The resulting trace is typically regular and mono-morph. In the related EEG pattern, the user should identify the non-physiological nature of the signal. In version 1.4 the minimal interval is 10 minutes.</i>	007579
On some hardware, additional EEG segments are created during monitoring. This does not affect the ACL all-in-one PC shipped with the nêo system ES-820. <i>Comment: ACL is the only configuration used for clinical systems.</i>	004683
Change of display from EEG to aEEG not smooth <i>Comment: not a functional issue for the user, only a minor display flaw.</i>	004171
Changed annotation color is not applied if old annotations are present. <i>Comment: persistence of the colour per event marker type is not a big problem, since a user will seldomly change this the after (optionally) setting his/her preference.</i>	004890
The total recording time displayed in the recordings table does not account for times where no EEG was measured, e.g. Impedance or amplifier disconnect. <i>Comment: this is considered a minor issue, where these non-EEG periods will be short compared to the recording length.</i>	004905
In rare cases, the Windows OS schedules some maintenance on the SQL server, which leads to a database error and stop of neo. <i>Comment: this has only been observed for very prolonged recordings (> 32h overnight).</i>	004914
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors. <i>Comment: not an issue on ACL as used for clinical systems.</i>	004916
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring. <i>Comment: very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability.</i>	004919
Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view. <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG.</i>	005025
On some hardware, for some keyboard languages, the letters entered via the on-screen touch keyboard do not appear in the Custom Annotation dialog. This does not affect the ACL all-in-one PC shipped with the nêo system ES-820 in any of the supported languages. <i>Comment: not an issue on ACL as used for clinical systems.</i>	005398
Reset review password is required after upgrading from neo 1.1 to neo 1.2.3 <i>Comment: a very minor nuisance only, which can be handled by the technician performing the upgrade.</i>	005458
Data update watchdog does not notify the user if a performance problem could be overcome automatically. Instead, the warning message from the detection of the performance problem persists on screen. <i>Comment: (rare case in prolonged recording, and no data loss observed) - when this message stays on screen, the user can see normal behaviour in the rest of the display and can click the 'OK' button in the message. Fixed in the watchdog log, further improvement to remove the warning message and still inform user of potential performance issue (with time indication).</i>	000276
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible.</i>	000028

9. Version

9.1 New features since version

Description	Internal ID
NA	

9.2 Changes since version

Description	Internal ID

Minor stability improvement	
Minor adjustment to impedance measurement method applying a filter to remove hum noise	

9.3 Bug fixes since version

Description	Internal issue ID
Corrected aEEG montage in default 3 channel protocol	BUG-000509
Fixed failing export for some rare cases	BUG-000517

9.4 Limitations and Known problems since version

Description	Internal issue ID
Only one annotation is displayed when annotations fall on the same screen pixel. <i>Comment: this limitation occurs very seldomly, future release will prioritize the most important.</i>	004934
Annotations can only be set to times where EEG is recorded <i>Comment: in the rare case where a recording is interrupted, e.g., amplifier disconnect, the user could potentially 'browse' in review mode to the non-recorded 'gap' period, and cannot set an annotation in the gap. It would rather be positioned directly on the EEG segment border.</i>	004935
Special Impedance mode for needle electrodes only supports values "0" and "inf" (connected / not connected). <i>This does apply for eego amplifier EE-511.</i> <i>Comment: subcutaneous electrodes will exhibit a low impedance that can be approximated to be below 1 kOhm in the signal frequency range relevant for standard neonatal EEG. In contrast to non-invasive surface electrodes, only a binary zero or INF display is meaningful for the user.</i>	
When using subcutaneous steel needle electrodes for recording EEG with the device, with the setting of the interval for automatic impedance check at 3 minutes, in the case of low-voltage EEG activity, the signal artifact resulting from the impedance check, at first sight, might be observed as a burst-suppression (BS) pattern in the aEEG. <i>Comment: The resulting trace is typically regular and mono-morph. In the related EEG pattern, the user should identify the non-physiological nature of the signal. In version 1.4 the minimal interval is 10 minutes.</i>	007579
On some hardware, additional EEG segments are created during monitoring. This does not affect the ACL all-in-one PC shipped with the nêo system ES-820. <i>Comment: ACL is the only configuration used for clinical systems.</i>	004683
Change of display from EEG to aEEG not smooth <i>Comment: not a functional issue for the user, only a minor display flaw.</i>	004171
Changed annotation color is not applied if old annotations are present. <i>Comment: persistence of the colour per event marker type is not a big problem, since a user will seldomly change this the after (optionally) setting his/her preference.</i>	004890
The total recording time displayed in the recordings table does not account for times where no EEG was measured, e.g. Impedance or amplifier disconnect. <i>Comment: this is considered a minor issue, where these non-EEG periods will be short compared to the recording length.</i>	004905
In rare cases, the Windows OS schedules some maintenance on the SQL server, which leads to a database error and stop of neo. <i>Comment: this has only been observed for very prolonged recordings (> 32h overnight).</i>	004914
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors. <i>Comment: not an issue on ACL as used for clinical systems</i>	004916
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring. <i>Comment: very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability.</i>	004919
Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view. <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG.</i>	005025
On some hardware, for some keyboard languages, the letters entered via the on-screen touch keyboard do not appear in the Custom Annotation dialog. This does not affect the ACL all-in-one PC shipped with the nêo system ES-820 in any of the supported languages. <i>Comment: not an issue on ACL as used for clinical systems.</i>	005398
Reset review password is required after upgrading from neo 1.1 to neo 1.2.3 <i>Comment: a very minor nuisance only, which can be handled by the technician performing the upgrade.</i>	005458

Data update watchdog does not notify the user if a performance problem could be overcome automatically. Instead, the warning message from the detection of the performance problem persists on screen. <i>Comment: (rare case in prolonged recording, and no data loss observed) - when this message stays on screen, the user can see normal behaviour in the rest of the display and can click the 'OK' button in the message. Fixed in the watchdog log, further improvement to remove the warning message and still inform user of potential performance issue (with time indication).</i>	000276
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible.</i>	000028

10. Version

10.1 New features since version

Description	Internal ID
support for eego amplifier EE-511	004300

10.2 Changes since version

Description	Internal ID
NA	

10.3 Bug fixes since version

Description	Internal issue ID
Default 3ch display is cut off in aEEG and EEG	000327
end user license agreement within installer not dedicated to neo	000444
Warning message "no data update in database" does not state recovered state	000276
Small area of non-rendered aEEG if recording length reaches a full screen size	000462

10.4 Limitations and Known problems since version

Description	Internal issue ID
Only one annotation is displayed when annotations fall on the same screen pixel. <i>Comment: this limitation occurs very seldomly, future release will prioritize the most important.</i>	004934
Annotations can only be set to times where EEG is recorded <i>Comment: in the rare case where a recording is interrupted, e.g., amplifier disconnect, the user could potentially 'browse' in review mode to the non-recorded 'gap' period, and cannot set an annotation in the gap. It would rather be positioned directly on the EEG segment border.</i>	004935
Special Impedance mode for needle electrodes only supports values "0" and "inf" (connected / not connected). <i>This does apply for eego amplifier EE-511.</i> <i>Comment: subcutaneous electrodes will exhibit a low impedance that can be approximated to be below 1 kOhm in the signal frequency range relevant for standard neonatal EEG. In contrast to non-invasive surface electrodes, only a binary zero or INF display is meaningful for the user</i>	
When using subcutaneous steel needle electrodes for recording EEG with the device, with the setting of the interval for automatic impedance check at 3 minutes, in the case of low-voltage EEG activity, the signal artifact resulting from the impedance check, at first sight, might be observed as a burst-suppression (BS) pattern in the aEEG. <i>Comment: The resulting trace is typically regular and mono-morph. In the related EEG pattern, the user should identify the non-physiological nature of the signal. In version 1.4 the minimal interval is 10 minutes.</i>	007579
On some hardware, additional EEG segments are created during monitoring. This does not affect the ACL all-in-one PC shipped with the nēo system ES-820. <i>Comment: ACL is the only configuration used for clinical systems.</i>	004683
Change of display from EEG to aEEG not smooth <i>Comment: not a functional issue for the user, only a minor display flaw.</i>	004171
Changed annotation color is not applied if old annotations are present. <i>Comment: persistence of the colour per event marker type is not a big problem, since a user will seldomly change this the after (optionally) setting his/her preference.</i>	004890

The total recording time displayed in the recordings table does not account for times where no EEG was measured, e.g. Impedance or amplifier disconnect. <i>Comment: this is considered a minor issue, where these non-EEG periods will be short compared to the recording length.</i>	004905
In rare cases, the Windows OS schedules some maintenance on the SQL server, which leads to a database error and stop of neo. <i>Comment: this has only been observed for very prolonged recordings (> 32h overnight).</i>	004914
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors. <i>Comment: not an issue on ACL as used for clinical systems.</i>	004916
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring. <i>Comment: very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability.</i>	004919
Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view. <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG.</i>	005025
On some hardware, for some keyboard languages, the letters entered via the on-screen touch keyboard do not appear in the Custom Annotation dialog. This does not affect the ACL all-in-one PC shipped with the nēo system ES-820 in any of the supported languages. <i>Comment: not an issue on ACL as used for clinical systems.</i>	005398
Reset review password is required after upgrading from neo 1.1 to neo 1.2.3 <i>Comment: a very minor nuisance only, which can be handled by the technician performing the upgrade.</i>	005458
Data update watchdog does not notify the user if a performance problem could be overcome automatically. Instead, the warning message from the detection of the performance problem persists on screen. <i>Comment: (rare case in prolonged recording, and no data loss observed) - when this message stays on screen, the user can see normal behaviour in the rest of the display and can click the 'OK' button in the message. Fixed in the watchdog log, further improvement to remove the warning message and still inform user of potential performance issue (with time indication).</i>	000276
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible.</i>	000028

11. Version 1.4.0

11.1 New features since version 1.2.3

Description	Internal ID
NA	

11.2 Changes since version 1.2.3

Description	Internal ID
List of initial montages	001320
Supported languages: [005607] Chinese + [004150] Romanian	001289
Screen calibration (vertical)	001312
Event marking updated for seizure annotations	004171
Database encryption	004149
Display impedance (live)	000594

11.3 Bug fixes since version 1.2.3

Description	Internal issue ID
Impedance values not updated when scrolling through review EEG and crossing segment borders	000029
Sometimes markers in aEEG are drawn not at the bottom of aEEG display, but on the second channel.	004933

11.4 Limitations and Known problems since version 1.2.3

Description	Internal issue ID
Only one annotation is displayed when annotations fall on the same screen pixel. <i>Comment: this limitation occurs very seldomly, future release will prioritize the most important.</i>	004934

Annotations can only be set to times where EEG is recorded <i>Comment: in the rare case where a recording is interrupted, e.g., amplifier disconnect, the user could potentially 'browse' in review mode to the non-recorded 'gap' period, and cannot set an annotation in the gap. It would rather be positioned directly on the EEG segment border.</i>	004935
Special Impedance mode for needle electrodes only supports values "0" and "inf" (connected / not connected). <i>This does apply for eego amplifier EE-511.</i> <i>Comment: subcutaneous electrodes will exhibit a low impedance that can be approximated to be below 1 kOhm in the signal frequency range relevant for standard neonatal EEG. In contrast to non-invasive surface electrodes, only a binary zero or INF display is meaningful for the user.</i>	
When using subcutaneous steel needle electrodes for recording EEG with the device, with the setting of the interval for automatic impedance check at 3 minutes, in the case of low-voltage EEG activity, the signal artifact resulting from the impedance check, at first sight, might be observed as a burst-suppression (BS) pattern in the aEEG. <i>Comment: The resulting trace is typically regular and mono-morph. In the related EEG pattern, the user should identify the non-physiological nature of the signal. In version 1.4 the minimal interval is 10 minutes.</i>	007579
On some hardware, additional EEG segments are created during monitoring. This does not affect the ACL all-in-one PC shipped with the nêo system ES-820. <i>Comment: ACL is the only configuration used for clinical systems.</i>	004683
Change of display from EEG to aEEG not smooth <i>Comment: not a functional issue for the user, only a minor display flaw.</i>	004171
Changed annotation color is not applied if old annotations are present. <i>Comment: persistence of the colour per event marker type is not a big problem, since a user will seldomly change this the after (optionally) setting his/her preference.</i>	004890
The total recording time displayed in the recordings table does not account for times where no EEG was measured, e.g. Impedance or amplifier disconnect. <i>Comment: this is considered a minor issue, where these non-EEG periods will be short compared to the recording length.</i>	004905
In rare cases, the Windows OS schedules some maintenance on the SQL server, which leads to a database error and stop of neo. <i>Comment: this has only been observed for very prolonged recordings (> 32h overnight).</i>	004914
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors. <i>Comment: not an issue on ACL as used for clinical systems.</i>	004916
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring. <i>Comment: very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability.</i>	004919
Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view. <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG.</i>	005025
On some hardware, for some keyboard languages, the letters entered via the on-screen touch keyboard do not appear in the Custom Annotation dialog. This does not affect the ACL all-in-one PC shipped with the nêo system ES-820 in any of the supported languages. <i>Comment: not an issue on ACL as used for clinical systems.</i>	005398
Reset review password is required after upgrading from neo 1.1 to neo 1.2.3 <i>Comment: a very minor nuisance only, which can be handled by the technician performing the upgrade.</i>	005458
Data update watchdog does not notify the user if a performance problem could be overcome automatically. Instead, the warning message from the detection of the performance problem persists on screen. <i>Comment: (rare case in prolonged recording, and no data loss observed) - when this message stays on screen, the user can see normal behaviour in the rest of the display and can click the 'OK' button in the message. Fixed in the watchdog log, further improvement to remove the warning message and still inform user of potential performance issue (with time indication).</i>	000276
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible.</i>	000028

12. Version 1.3 [This version was not released]

12.1 New features since version 1.2.3

Description	Internal ID
Chinese language support (prototype release only for evaluation with Chinese partner)	005607

12.2 Changes since version

Description	Internal ID
N/A	

12.3 Bug fixes since version

Description	Internal issue ID
N/A	

12.4 Limitations and Known problems since version

Description	Internal issue ID
N/A	

13. Version 1.2.3

13.1 New features since version

Description	Internal ID
NA	

13.2 Changes since version

Description	Internal ID
NA	

13.3 Bug fixes since version

Description	Internal issue ID
Reduced software performance in case of high load due to large number of marker events	000027

13.4 Limitations and Known problems since version

Description	Internal issue ID
Only one annotation is displayed when annotations fall on the same screen pixel. <i>Comment: this limitation occurs very seldomly, future release will prioritize the most important</i>	004934
Annotations can only be set to times where EEG is recorded. <i>Comment: in the rare case where a recording is interrupted, e.g., amplifier disconnect, the user could potentially 'browse' in review mode to the non-recorded 'gap' period, and cannot set an annotation in the gap. It would rather be positioned directly on the EEG segment border</i>	004935
Impedance calculation for steel needle electrodes only supports values "0" and "inf", providing the indication if a needle is connected or not. <i>Comment: subcutaneous electrodes will exhibit a low impedance that can be approximated to be below 1 kOhm in the signal frequency range relevant for standard neonatal EEG. In contrast to non-invasive surface electrodes, only a binary zero or INF display is meaningful for the user.</i>	
On some hardware, additional EEG segments are created during monitoring. This does not affect the ACL all-in-one PC shipped with the nêo system ES-820. <i>Comment: ACL is the only configuration used for clinical systems.</i>	004683
Change of display from EEG to aEEG not smooth. <i>Comment: not a functional issue for the user, only a minor display flaw.</i>	004171
Changed annotation color is not applied if old annotations are present. <i>Comment: persistence of the colour per event marker type is not a big problem, since a user will seldomly change this the after (optionally) setting his/her preference.</i>	004890
The total recording time displayed in the recordings table does not account for times where no EEG was measured, e.g. Impedance or amplifier disconnect. <i>Comment: this is considered a minor issue, where these non-EEG periods will be short compared to the recording length</i>	004905

In rare cases, the Windows OS schedules some maintenance on the SQL server, which leads to a database error and stop of neo. <i>Comment: this has only been observed for very prolonged recordings (> 32h overnight). Fixed.</i>	004914
For some values of the aEEG timescale, the grid lines in the aEEG show an irregular pattern on some monitors. <i>Comment: not an issue on ACL as used for clinical systems.</i>	004916
Sometimes the system doesn't continue recording if a disconnected amplifier gets connected again via USB. Workaround: Stop and restart monitoring. <i>Comment: very unlikely scenario; in a well configured setup the USB connection is stable. The workaround is easy to do for technically trained personnel, who will ensure connection stability.</i>	004919
Sometimes markers in aEEG are drawn not at the bottom of aEEG display, but on the second channel. <i>Comment: this was analysed to be an erratic alignment issue of overlapping markers. Fixed.</i>	004933
Sometimes annotations put in the last few seconds of EEG are not shown in the aEEG view. <i>Comment: At the very end of the recording, there is simply no correspondence between EEG and aEEG.</i>	005025
On some hardware, for some keyboard languages, the letters entered via the on-screen touch keyboard do not appear in the Custom Annotation dialog. This does not affect the ACL all-in-one PC shipped with the nēo system ES-820 in any of the supported languages. <i>Comment: not an issue on ACL as used for clinical systems.</i>	005398
Data update watchdog does not notify the user if a performance problem could be overcome automatically. Instead, the warning message from the detection of the performance problem persists on screen. <i>Comment: (rare case in prolonged recording, and no data loss observed) - when this message stays on screen, the user can see normal behaviour in the rest of the display and can click the 'OK' button in the message. Fixed in the watchdog log, further improvement to remove the warning message and still inform user of potential performance issue (with time indication).</i>	005418
Demonstrations only: In rare cases, the EEG simulator stops working and an amplifier error is shown. <i>Comment: not an issue in real installation.</i>	005450
Reset review password is required after upgrading from neo 1.1 to neo 1.2.3 <i>Comment: a very minor nuisance only, which can be handled by the technician performing the upgrade.</i>	005458
Hard software shutdown during saving processes may corrupt config file <i>Comment: Application can't be started, no false user action possible.</i>	000028
Impedance values not updated when scrolling through review EEG and crossing segment borders <i>Comment: Temporary display limitation during scrolling. User interaction with the time marker triggers an immediate update of the values.</i>	000029