

# Glia ECG application status report

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In this report current status of Glia ECG V1.1 system is examined, specifically its Android application. Requirements of the system were specified in development plan, which is the base for this report.

In first paragraph, implemented requirements from development plan are listed, followed by all possible future improvements.

# FEATURES AND REQUIREMENTS IMPLEMENTED

- The App should never show “OUT OF RANGE” on any of the signal leads
- Time axis should be unified for all signals, meaning that on the far left of the signal there is time 0 and on the far right is end time.
- When the tabloid screen is off, the ECG device must be disabled too (ECG device gets turned off when the application is killed by user or system).
- When App is launched, it goes directly to default – active measurement screen (12-lead screen activity)
- this default screen is the backmost screen i.e. if back button is pressed at any point, the app goes back. Once it reaches the default screen, nothing happens if back button is pressed again
- There has to be an option to auto-print on save (methods are ready in app, actual printing needs to be added)
- There must be a “new patient” button, “About” button
- The user must have access to File system, search function and an option to transfer files via USB (user can close the app and open filesystem app called “Files”, signal pdfs are located in separate folder inside devices filesystem root folder).
- User workflow as described by Glia team, composed into a set of screen sets in the Appendix 1 of Development plan document, was implemented in full.
- When tablet powers the ECG device, warning is presented to the user
- Library used for USB Serial communication was modified and full release was made.
- 12-lead signals are displayed without any margin
- Main Buttons are colored into basic and distinct colors (pause/resume: green, save/stop: red, rhythm/12-lead: blue, patient – orange)
- The app must present a warning when operated in non-default paper speed mode (paper speed info is displayed on screen, changing paper speed is not yet implemented)
- Archive screen – file gets open in pdf reader when user clicks on its filename
- Archive screen – user can search (filter) files by filename
- Heartrate (BPM) of the patient is displayed in the background of the main screen

# POSSIBLE FUTURE IMPROVEMENTS AND KNOWN BUGS

- **BUG:** Tablet is not charging properly and connection is sometimes lost, because of the faulty USB hub
- **ENHANCEMENT:** When the measurement is paused, a two-finger zoom function to be added
- **ENHANCEMENT:** To use the button on the ECG board for reset purpose

