



DialoQ® – Mobile Assistant User Guide

Version 2.0.x

About the software

DialoQ Mobile is a speech controlled accessibility application and mobile assistant for Android devices. The application has been designed for users with physical disabilities preventing use of touchscreen phone.

With DialoQ, users can use all basic features available on their mobile phones, including voice and video calls and short messages by speech commands.

DialoQ Mobile is a speaker independent solution: it can recognize a variety of speakers without need of training.

Special accessibility features include simpler full screen call handling, automatic speaker phone, speech controlled dialog user interface and Wake-Up-Word, which enables one to use the software by using speech only. The application also supports proximity sensor, which can be used for call control.

As a special safety feature, the user can pre-select callers that will be auto-answered. This feature also supports video calls. Close family members or caring personnel can also configure DialoQ to send usage reports to follow user's activity.

Speech recognition is running on the device and there is no need for data connection for phone control features. For example, dialing any number is possible without data connection.

DialoQ Mobile supports also environmental control via Housemate, IRTrans, Tellstick Telldus Live and EWA Home smart plug integrations.

DialoQ Mobile 2.0 requires Android phone running Android OS 6.0 or newer. List of recommended mobile phones is included in this user guide.

NOTE

**Software is not intended
as security phone!**

**DialoQ is only meant for basic personal
usage like using the environmental
control, personal calls and messages.**

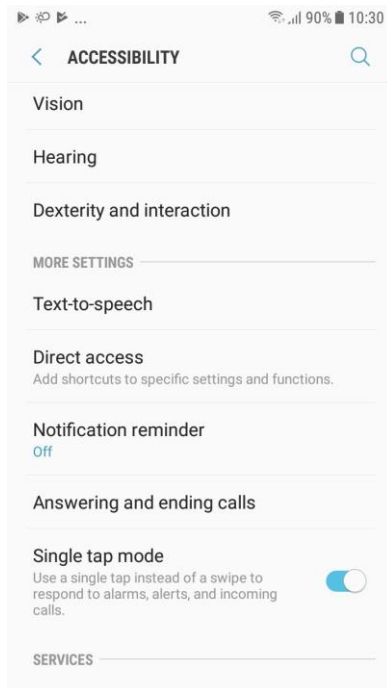
**Code-Q Ltd cannot guarantee that
software is free of errors.**

1. Installation

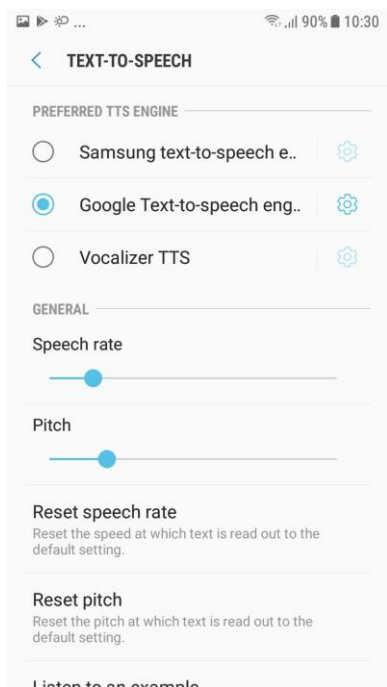
Before DialoQ Mobile installation:

DialoQ Mobile uses Android Text To Speech to speak aloud for example verification prompts. Please install Text to Speech for your language.

- Open Android Phone settings and locate Accessibility and text to speech:



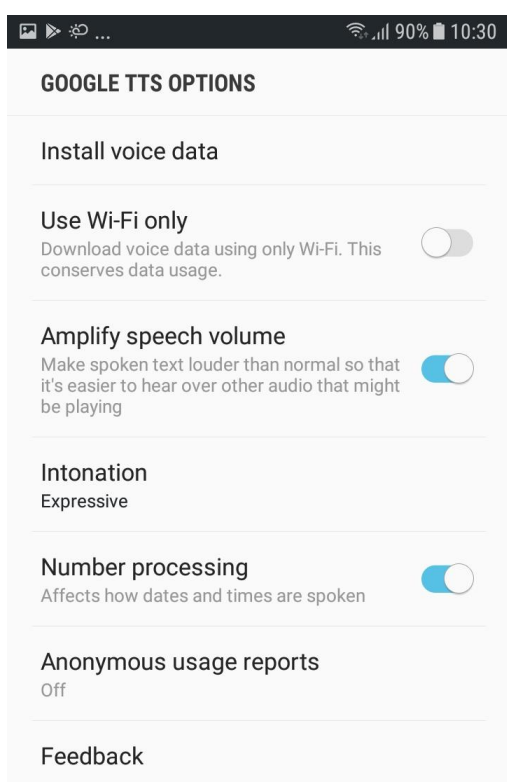
- Select text-to-speech and preferred TTS-engine (example Google):



- Note: ensure that you're using OFFLINE TTS, by default Google might offer you online version, so open settings for Google Text-to-Speech:



- Change following:
 - Install voice data -> install your preferred voice data to the device
 - Use Wi-Fi only - OFF (IMPORTANT!)
 - Anonymous usage reports - OFF



DialoQ Mobile Installation:

Download the software to the phone for example by opening the download link provided by manufacturer or reseller. Once the software is downloaded launch the Android installer and install the software to the phone.

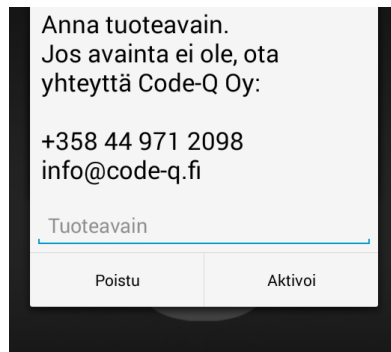
If you are not familiar how to install software outside Play-store, then please ask us for more information. You can also study online guides found from Internet like:

<https://www.cnet.com/how-to/how-to-install-apps-outside-of-google-play/>

Once you have installed the apk-file continue following this guide.

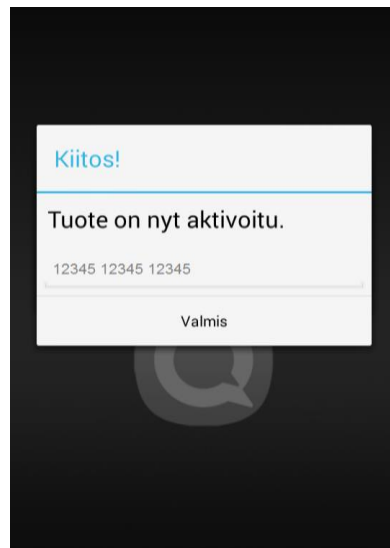
After installation you need to activate DialoQ Mobile license. Reseller has provided you the license

key which you need to give:



Picture 1: License key request

Activation needs internet-connection so either WiFi or mobile data connection needs to be active. If activation succeeds you'll get activation success - request:



Picture 2: Activation success

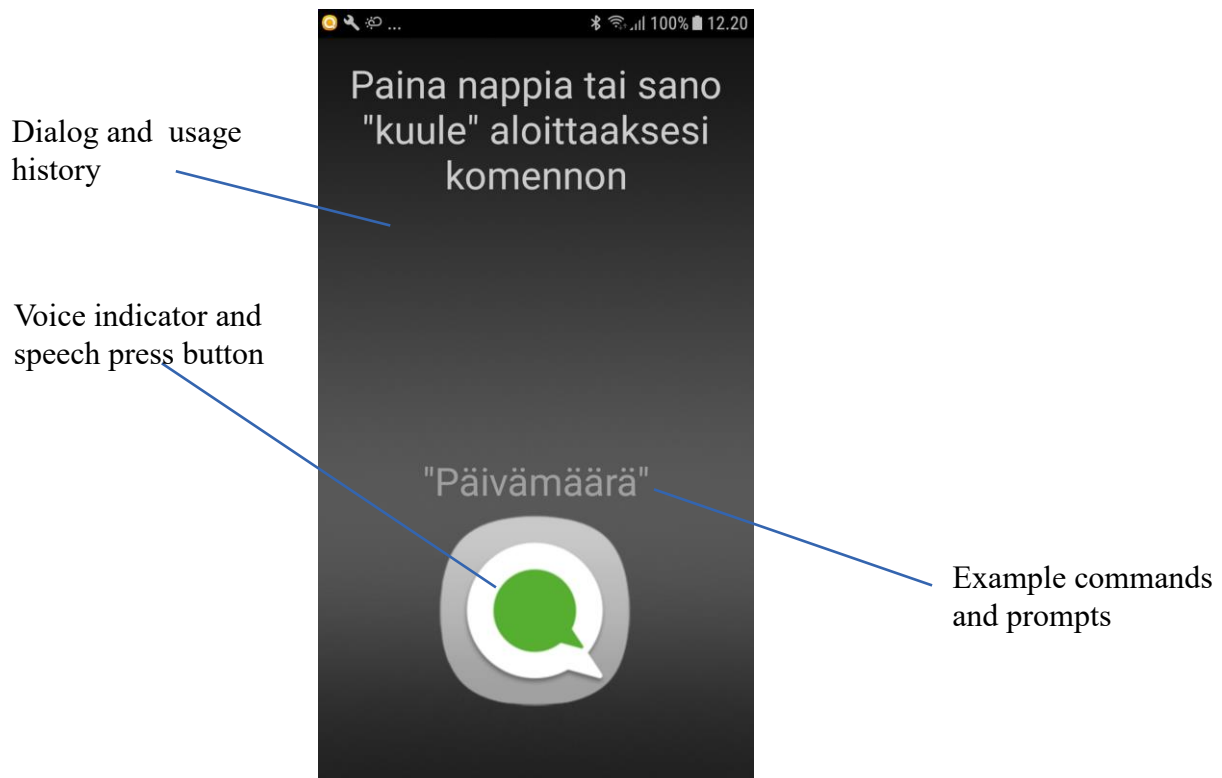
In case the activation fails, please check the license key and internet connection. If problem still appears connect manufacturer or reseller (see the contact information in the end of user guide).

If you're not using features requiring Internet-connection, you can now turn Wi-Fi or mobile data off.

2. Using the Software

Once software is activated, the DialoQ software starts and it can be taken in use.

Main screen and default state:



Picture 3: Main screen

Dialog and usage history:

Shows the dialog with the software and usage history of software like last commands. User can clear the usage history by using the voice command (see the list of supported commands in the end of this user guide).

Voice indicator:

Shows the voice activity recognized by microphone. If center of the indicator is green, the wake-up-word listening is activated and software is listening the wake up word.

The command listening mode can be activated either by wake up word or by pressing the center of voice indicator / speech press button.

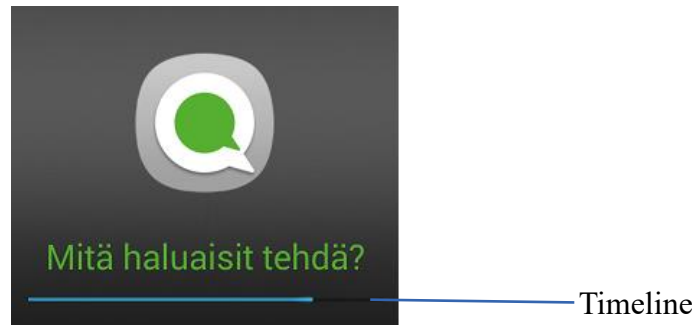
Example commands and prompts:

Example commands and prompts are displayed at the bottom of screen. The displayed prompts depends on the software state. For example it displays example commands on idle state and possible dialog based questions (like answer options yes/no).

Speech commands are given either by waking up the listening mode with wake-up-word or by pressing the voice indicator.

When software is listening the speech command, the prompt changes to 'what do you want to do'

and timeline is displayed below the prompt.

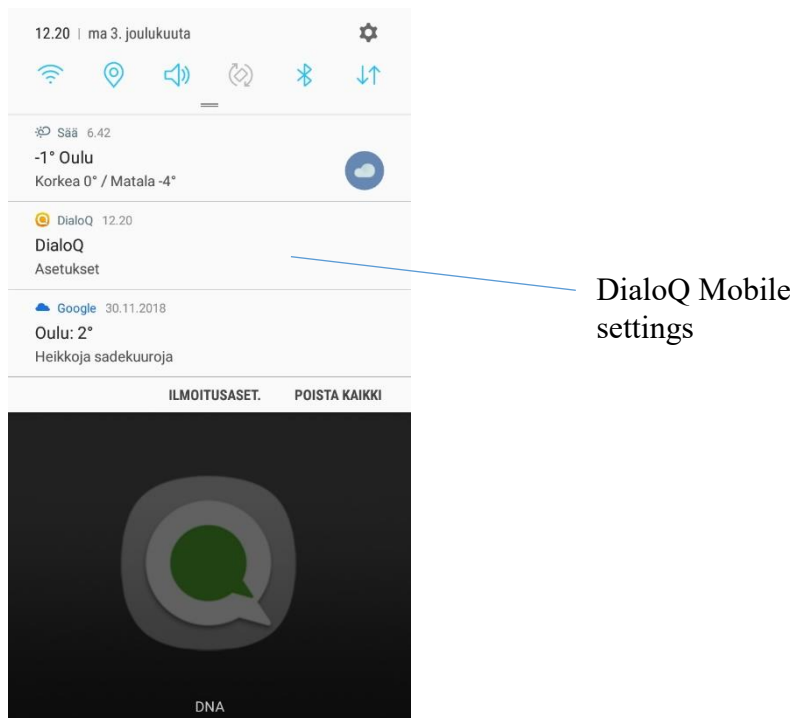


Picture 4: Example commands and timeline

Timeline shows to time that user has left to give the command, when time is ran out – the software returns to idle state (listening / waiting for wake-up command).

DialoQ Mobile settings

User can access to DialoQ settings by using the drop-down menu:



2.1 Wake-Up-Word

With wake-up-word it's possible to use DialoQ without touching the device.

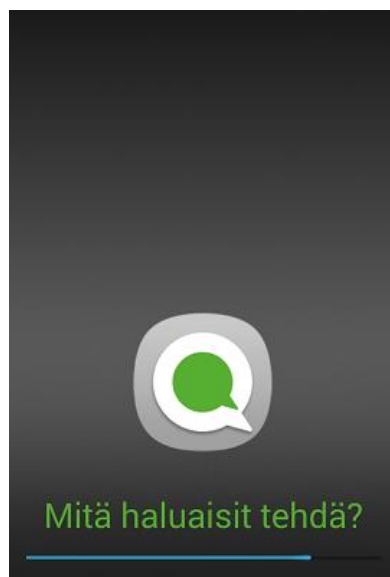
In English version the wake-up-word is '**Housemate**'

When wake-up-word is recognized, the software changes state from main screen to speech command listening mode.

Example:

Start the application and ensure that there's no heavy background noise. Say the wake-up-word "**Housemate**".

When application recognizes the wake-up-word, you'll hear a beep and display switches to speech command listening mode.



Picture 5: Speech command listening mode

You can now give commands, for example cancel the behavior by saying '**cancel**'. Application now returns to default view. Notice that you need to give speech command inside the time frame indicated by timeline.

If wake-up-word is not recognized, try again on quiet environment. If recognition still fails, go to settings and try with setting 'eased keyword detection' – on or go to settings and remove some wake-up-word decoy words (you can use debug-mode to find out which decoy word is recognized instead of wake-up-word).

DialoQ support automatic microphone adaption. Because of this first recognitions are not made by using optimal microphone settings. Before

changing the recognition parameters from application settings, try with default settings so that that microphone is adapted correctly.

2.2 Phone calls

With speech command “Call to <name>” user is able to make a phone call. After the ‘call’ command is expected either first name or first and last name.

In case you give only first name and you’ll have more than one match available on phonebook with same first name, application will suggest which one to call.

Example:

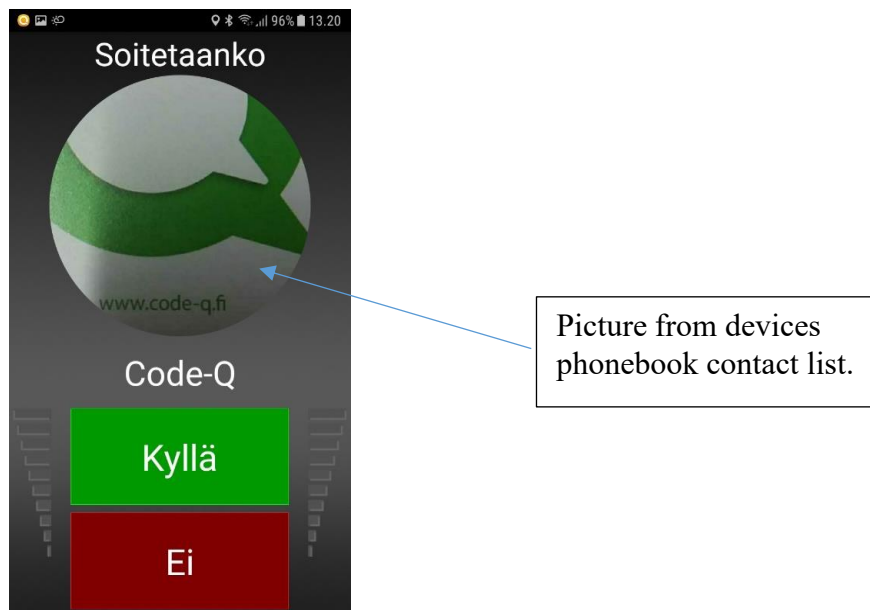
User says ‘**call Stefan**’. DialoQ answers ‘call Stefan Holm or Stefan Johnsson?’ Application now waits user to say the whole name or ‘cancel’.

The name database that application uses is created during the application start based on contact information found from phones contact list. Please remember that using special characters or short terms like ‘Mrs.’ is not recommended for speech recognition.

When the application starts, it reads the phones contacts list and creates the necessary vocabulary for speech recognition.

You can check the created vocabulary for speech recognition from settings ‘Answer automatically’. This opens a list that contains all items available for speech recognition.

Speech recognizer’s vocabulary may reject some of the phone book contacts, if they include special characters. If you find a missing contact, change that person’s information from the phones contact list.



Picture 6: Example of recognized command ‘Call Code-Q’

Example "Call mother":

Start the application and make sure that the environment is quiet. Say the wake-up-word "**Housemate**". When the application detects wake-up-word you'll hear a beep and the display will change to command the listening mode.

Now say the voice command "**Call mother**" (the example expects that phones contact list has name '**Mother**', alternatively, you can use another name from the contact list.

If the application recognizes the voice command it'll display the command 'call' and matching name 'mother'. Answer "**Yes**" if you want to make a call, or alternatively, "**No**" or '**cancel**' if you want to cancel the call.

2.2.1 Calls to a phone number

Call to the plain phone number is done with the voice command "**call number <number>**".

As an example, "call number +358 50 123 4567". Note that call to number – command supports the area code and needed prefixes like +.

Example:

Say the voice command "**Call number plus five eight six...**".

2.3 Call hang up

The application includes easier call handling methods such as usage of speech command or the proximity sensor for answering / hang up and simplified call screen. In addition, the application supports the call answer or hang up with wired switch (ask reseller for more information).

Proximity sensor or simplified call screen doesn't need exact touch to phone's display, compared to normal call screen usage. So those methods are very helpful for elderly people or visually impaired persons.

2.3.1 Hang up with simplified call screen

The ongoing call can be hang-up by using the simplified caller screen by simply pressing to the red area – the whole screen acts like one big hung-up – button.



Picture 7: Simplified call screen

Simplified call screen is set on as default.

2.3.2 Hang up with proximity sensor

User can hang-up the call by using the proximity sensor. You must set first 'end call with proximity sensor' – setting on from application settings.

Once the feature is set on, you can hang-up the ongoing phone or video call by covering the phone display (upper part of it) for 2 seconds.

When application notices that the screen is covered, the countdown for 2 seconds to hang up will be displayed.

The proximity sensor is usually on upper part of the display, close to front camera.

Notice that hang up with proximity sensor is set off as default, as otherwise lifting the phone to ear will hang up the call.

Your device must support proximity sensor to be able to use this feature.

2.3.3 Hang up by voice command

User can also hang-up the incoming call or ongoing call by using the voice commands.

Hanging up the ongoing call is done by using voice command: “**Hang up**”. Notice that you must set this feature on from applications settings before take it in use. Use the hang-up command during the call in quiet period – so when other person is quiet and there’s not so much background noise. Say ‘hang up’ and wait few seconds – if call is not ended – try again.

Hanging up the incoming call is done by using command: “**Reject**”, application will guide you for this command when phone is ringing. Note that you must say command in quiet period, so wait until application has finished ‘speaking’ the guideline.

Notice that “hang up”– command is really sensitive, so it’s not available for all the phones. Please see the list of supported models in the end of this user guide.

Your device must support hang-up by voice command to be able to use this feature.

2.4 Accepting to the calls

The application includes easier call handling methods such as usage of speech command and the proximity sensor for answering and answering via simplified call screen. In addition, the application supports the call answer with wired switch (ask reseller for more information).

Proximity sensor or simplified call screen doesn’t need exact touch to phone’s display, compared to normal call screen usage. So those methods are very helpful for elderly people or visually impaired persons.

2.4.1 Accepting the call with voice command

User can also accept the incoming call call by using the voice command.

Accepting the incoming call is done by using command: “**Answer**”, application will guide you for this command when phone is ringing. Note that you must say command in quiet period, so wait until application has finished ‘speaking’ the guideline.

Notice that you need to have ‘answer by voice command’ – feature set on from application’s settings before you’re able to accept incoming call by voice command.

2.4.2 Accepting the call with simplified call screen

You can accept the incoming call by using simplified call screen. When phone is ringing and the screen changes to green – just press the screen to accept the call. The whole screen acts like one big call accept button.



Picture 8: Simplified call screen – accepting the call

2.4.3 Accepting the call with proximity sensor

User can accept the incoming call by using the proximity sensor. You must set first ‘answer with proximity sensor’ – setting on from application settings under ‘call settings’.

Once the feature is set on, you can accept the incoming phone or video call by covering the phone display (upper part of it) for 2 seconds.

When application notices that the screen is covered, the countdown for 2 seconds to answer will

be displayed.

The proximity sensor is usually on upper part of the display, close to front camera.

Your device must support proximity sensor to be able to use this feature.

2.5 Auto-answer feature

For persons that have problems with speaking for example when getting tired at evening – there's an auto-answer feature. The feature can be used to check for example that everything is ok, if DialoQ user is not answering the phone in given time period.

As a default this feature is set off.

You can activate the auto-answer following these steps:

- open application settings
- select Call settings - *Answer automatically*
- pick person(s) from the list that you want device to answer automatically and then accept selection with 'ok'
- select *Auto-answer delay* and select wanted delay for auto-answering the call (from no delay to 60 seconds), this is the period of time that phone rings before auto-answering

You can also activate auto-answer feature for all incoming calls.

Example: Auto-answer to a call from “Mother”

- open the application
- go to the settings and select 'Call settings - Answer automatically'
- find 'Mother' from the list and accept the list by 'ok', after this the device will automatically answer to all calls coming from 'Mother'
- select the wanted delay, as a default it's 10 seconds
- now ask 'Mother' to call to your number
- Countdown from 10 seconds will be displayed and when 10 seconds is run out the call will be answered.

Note that even if auto-answer is set on, the user can still decline the call when it's ringing – but only if delay for auto-answer is set. With no delay the call will be automatically connected.

If you have set on the auto-answer feature, both normal calls and video calls will be auto-answered! That is – of course – if your device supports video calls.

2.6 Short messages

With DialoQ it's possible to send short messages with voice commands. The free speech dictation uses online service and requires internet connection, but it's also possible to use DialoQ recognizer to send message templates without internet connection.

If user knows for sure that he's not going to use SMS sending at all, the SMS commands can be deactivate from applications settings – enable sending SMS. This is for persons that might have problems with speech recognition even with limited amount of commands – so the accuracy of smaller amount of commands will raise little bit.

2.6.1 Sending dictated short message

You can find the complete list of supported speech commands for short message sending in the end of this user guide.

Example of free speech dictation and sending message to 'Mother':

- open the application
- say command for short message sending for example **'text to Mother'**
- application will display 'text to mother' and after a short period gives you sound notification to start dictating
- now dictate the message for example **'Hi how are you'**
- dictation will end automatically when there's no incoming speech
- application will verify the result and ask whether you want to send the message or not
- answer **'Yes'** to send the message or **'No'** (or 'cancel') to cancel the sending of SMS or to continue dictation with additional sentence.

Free speech diction requires Internet-connection via mobile data or WiFi.

2.6.2 Sending short messages without internet-connection

You can send short messages by voice commands without internet connection if you use the predefined message templates.

Benefit for using the templates is that even the mobile data or Wi-Fi is not available, you're able to send some basic short messages.

You can modify and add new message templates by following these steps:

- open application settings

- select Message templates
- select 'New' or select existing template to modify
- if you've select new, then write the template and press 'Ok'
- the template can be now taken in use

The message templates also support *dynamic fields*, so you don't need to write several message templates for example to tell that you're running some minutes late.

The dynamic fields are defined by adding {number} and {time} macros to message template. For example if user wants to write 'I'm 5 minutes late' – instead of writing such template, he can do it by writing:

I'm **{number}** minutes late.

Now when the template is used, user can say 'I'm **five** minutes late' or for another message 'I'm **twenty** minutes late' with same message template.

- {number} can be anything between 0 – 100
- {time} can be time in 5 minutes accuracy using 24h clock for example: 14:35

Example how to send message to 'Mother' without internet connection (using the templates):

- say 'pick a message to Mother'
- the message templates are shown
- now say the message template, if you're using the one with dynamic field please say the number or time that you want (based on guideline above), as an example:
 - o 'I'm five minutes late'
- if you want to cancel the sending just say 'cancel'

2.6.3 Sending short message by using default input method

It's possible to use alternative method for short message sending, by using default message application and text input method. Notice that this will require you to use hands when sending the message.

The feature is implemented for persons that can use their hands and prefer to use e.g. some special input method for text input.

The speech commands can be then used to open the short message application and filling the recipient information by speech.

You can use the default text input and short message application following these steps:

- open application settings
- open default SMS composing mode
- select 'compose message'

Now just use standard short message command to open default input method and message application (for example: 'text to Mother').

2.6.4 Short message sending with alternative ways using different commands

If user wants to use different methods to send short messages, as an example: in some cases he wants to use dictation and when Wi-Fi is not available he prefers to use message templates.

This can be done by using different voice commands:

- open application settings
- check default SMS composing mode
- command **'Text to Mother'** will behave depending on default composing mode, so using these commands and if default mode is:
 - o Dictate message, command will open the free speech dictation
 - o Compose message, command will open the default input method and message application
 - o Select template, command will open the message templates
- note that whatever your default composing mode is you can still use commands:
 - o 'Dictate message to Mother' – to dictate the message
 - o 'Pick a message to Mother' – to select message template

2.6.5 Reading and browsing the short messages

DialoQ will inform the incoming SMS by notification. The application also reads aloud the incoming SMS information (the sender name if known) if setting 'speak incoming SMS info' is enabled.

Then short message is received, user can use command 'read message' to read aloud the message. The command will always read aloud the latest message or the message that user has browsed for.

The browsing of messages are done by commands 'next message' or 'previous message'.

2.6.6 Answering to the short message

DialoQ will inform the incoming SMS by notification. You can answer to received SMS by voice commands 'reply message'. These commands will automatically answer to the latest received message.

You can also use the same answering commands while browsing the messages by using commands 'next / previous message'. So giving the command 'reply message' will answer to the active message which user has browsed for.

Example:

- phone receives a message from Mother, DialoQ says 'Message from Mother'
- user says **'read message'**
- DialoQ reads the message aloud.
- user says **'previous message'**
- DialoQ says 'message two, sender Tapio'
- if user now says **'reply to a message'** the message will be send to current message sender

(Tapio)

2.7 Video calls

DialoQ includes voice command for video calling, its simple '**video call <contact>**'. Note that not all phones support video calling, so both your phone and receivers phone needs to support video calls over mobile network (usually Samsung Android phones will supports those).

Notice that video calls use different method for voice recording, so it's not possible to hang up the video call by using the speech commands.

Note, if you have set auto-answer feature on for some users – the auto-answer will also work on video calls.

2.8 Other speech commands

There are many other speech commands supported by the application, in the end of document you'll find different commands listed. Here's a short explanation about different features.

2.8.1 Cleaning the usage history / screen

The user history can be emptied from the screen by speech command '**clear the screen**'.

2.8.2 Current time

User can ask the current time by command "**current time**". The time will be told aloud to user and it's not included into usage history.

2.8.3 Current date

With command "**date**" the application will tell the current day and date. The date will be told aloud to user and it's not included to usage history.

2.8.4 Calling back to number

Using the command '**call back**' user can call to the latest non-answered phone number. This command is useful when non answered phone number is not in the contact information.

2.8.5 Redialing

Using the command '**redial**' user can call to the latest called phone number. This command is useful when latest used phone number is not in the contact information.

2.8.6 Getting information about missed calls

Using the command "**Who called me**", user can ask information about latest non-answered call.

2.8.7 Setting silent mode on and off

With command "**silent mode on**" and "**silent mode off**" user can switch the silent mode on and off.

The command will switch the alert sounds on/off, so for example incoming calls and ringing tone. This matches the silent mode that's available on Android OS drop down menu.

2.8.8 Weather report

DialoQ supports weather information either by using the GPS location or by favourite place.

Example weather commands:

"**Weather**", software tells the current weather by GPS location.

"**Weather today**", software tells the weather forecast for today by GPS location

"**Weather tomorrow**", software tells the weather forecast for tomorrow by GPS location

"**Weather in <city>**", software tells current weather in favourite city

"**Weather in <city> today**", software tells the forecast for today's weather at favourite city

"**Weather in <city> tomorrow**", software tells the forecast for tomorrow at favourite city

2.8.9 Phone status

User can ask phone status like battery level, signal strength etc. by using command "**Phone status**".

2.8.10 Battery status

User can ask battery status by using command "**Battery status**".

2.8.11 Location / GPS

User can ask location (street etc.) by using command **“Location”**.

2.8.12 Alarm clock

DialoQ has built-in alarm clock which can be controlled fully by voice.

‘Set alarm <time>’ – sets the alarm for example ‘set alarm 15:10’

‘Alarm status’ – tells the information about alarm

‘Remove alarm’ – removes the set alarm.

When alarm clock is ringing – use command **‘dismiss’**.

Note that alarm clock only works when DialoQ is running.

2.8.13 RSS news reader

DialoQ supports voice controlled RSS news reader. RSS sources can be set by using DialoQ settings. There are some predefined RSS sources added.

“News” – opens the news source list

Select news source by saying the source name (example: “Daily Mail”) or saying the number of news source for example ‘Number two’.

“Read news” – reads the current news item (using the current news index)

“Read next news item” – reads the next news item

“Next news item” – sets the news index to next news item

“Read previous news item” – reads the previous news item

“Previous news item” – sets the news index to previous item

When adding new RSS sources, please note that:

- command is the command user says it (so instead of abbreviation or numbers use full words)
- RSS address – requires the prefix (like https://)

2.8.14 Internet browser

DialoQ has built-in internet browser for basic browsing. Note that browser supports only basic pages.

Internet page is pre-defined as ‘favourite’ under DialoQ settings. There are some predefined pages.

Under settings – other features – Web browser you can define new pages. Note that webpage address requires the full prefix (like https://) also note that command is the actual voice command – so use full words instead of abbreviations or numbers.

“Open website <site>” – opens the webpage, example ‘open website Naidex’

“Scroll down”, “Scroll”, “Scroll up” – scrolls the webpage

“Select” – selects something from the current webpage (opens the selection mode)

“Close browser” - closes the browser. Browser also closes automatically when display is shut down.



Selection mode

- Use **‘select’** to start selection mode – once the selection is done by horizontally and vertically the ‘selection’ is pressed in that point (to open a link / article under the selection)

2.8.15 Voice memo

DialoQ 2.0 has built-in voice memo for user to record important information to remember.

“Record audio log”, records the voice memo

“Listen audio log”, listen the current voice memo – one that voice memo index is pointing

“Listen audio log <index>”, listens the voice memo in given index.

“Next audio log”, change the voice memo index to next one

“Previous audio log”, change the voice memo index to previous one

“Delete audio log”, delete the current voice memo – one that index is pointing

3. Other features

Other DialoQ features that makes phone usage easier.

3.1 Bluetooth-support

DialoQ – application supports Bluetooth buttons to control DialoQ scanning function – which can be configured for example to make calls or use environment control.

Most bluetooth microphone and speaker sets will work with DialoQ as well as bluetooth headsets.

3.2 Power saving feature

DialoQ – application uses build-in power saving feature to turn screen off after the application is not used.

User can turn screen on by:

- wake-up-word "**Housemate**"
- pressing the home button (the middle button on Android phones)
- waking-up the listening mode by pressing wired switch or Bluetooth button

3.3 Speaker phone mode

DialoQ will work automatically as speaker phone.

You can also switch the speaker phone feature off from application settings (if for some reason you want to use phone without speaker phone mode).

3.4 Using DialoQ with headset

DialoQ supports wired and bluetooth headsets. Both headsets will require usage of hands to press for example the call-button.

The button works like this:

- incoming call – pressing the button will answer to the call
- ongoing call – pressing the button will hang up
- listening mode – pressing the button will activate command mode (like giving the wake-up-word)

3.5 Closing the software

You can close the application by pressing device's back-button.

The 'back'-button will ask from user, if he's sure to close down the application. Answering "**Yes**" will close the software.

3.6 Showing the example commands

DialoQ shows example commands (hints) on the bottom of the application screen. This is helpful for the persons that don't use the application so often or have some other problem with their memory.

It's possible to disable the example commands from application settings (Show example commands).

3.7 Application pop-up (always on top) feature

DialoQ tries to be always the topmost application, so even if user or caring personnel has accidentally pressed home button or otherwise managed to get DialoQ non-active, the DialoQ will pop-up as topmost application.

This is helpful feature especially if phone is used on carrying bag as keys are easily accidentally pressed.

3.8 Support for variety of different speakers

DialoQ includes advanced settings for modifying the recognizer to work with variety of different speakers.

You can for example:

- change speaker voice pitch for recognizer to match even young children's voice
- modify recognition threshold and enable easier recognition for those that have problems with speaking
- turn on more sensitive recording mode, for example for persons with weak voice like
 - o persons using oxygen masks,
 - o persons with breathing aid
 - o or persons with ALS

3.9 DialoQ Mobile Home – version

If you install DialoQ Mobile Home – version, the software will start automatically when phone is powered on. User cannot also accidentally shutdown the DialoQ software as it'll work as home-screen of the phone.

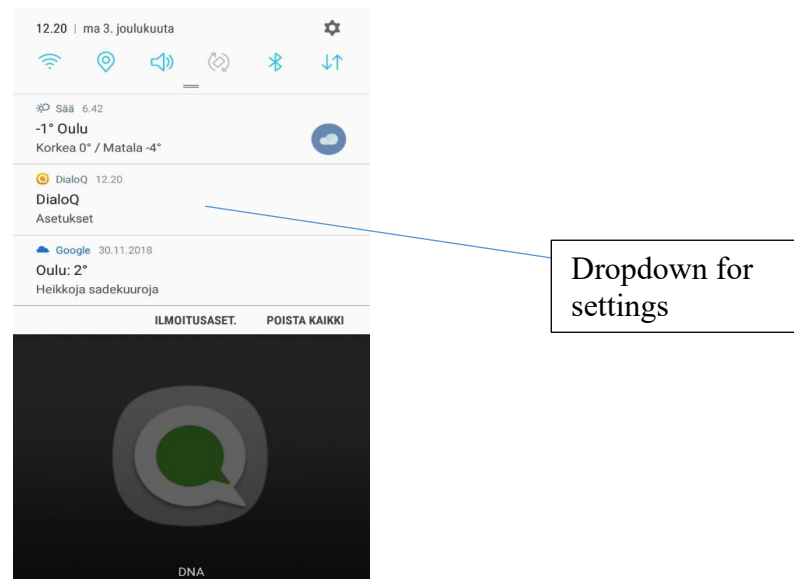
3.10 Kajo Button and Arch support

DialoQ supports Kajo – buttons to control calls or scanning feature. You can use either wired switches (connected to audio socket with adapter cable available from Kajo) or wireless Kajo Bluetooth Arch/ switches.

You can define either one function per switch or list of functions which can be selected by using a scanning list.

4. Settings

Users are able to modify application settings using dropdown menu while DialoQ is running:



Picture 9: Dropdown menu for settings

It's not possible to modify settings using speech commands.

Setting	Information
Maintenance mode	User needs to activate maintenance mode before changing settings. Default password for maintenance is '1234'.
Close maintenance mode	Closes maintenance mode (requires password for new access)
Password	Password for maintenance mode.
Calibration mode	Opens automatic calibration mode, use only if recognition is not working perfectly and you're not sure how to tune the voice recognition settings.
Voice controlled features.	By default all commands are active, if for some reason it's needed to have smaller amount of commands use this setting to deselect not used features. <ul style="list-style-type: none">- calling, call commands- message sending, SMS messaging- message reading, SMS message browsing- extras, clock, date, alarm clock, weather...- environmental control
Speech commands	If you just want to remove individual commands (not whole group as above) – select speech commands to remove under this setting.
Voice recognition	Setting that opens voice recognition settings
- Speaker voice pitch	Changes the speaker voice pitch, change this if user has exceptionally high or low voice. Also if user is a child, then there's a setting for children's voice. Usually there's no need to touch to this setting. As default value is: 1.0 There's reference guide included on the settings screen for different values.
- Wake-up word acceptance threshold	Change this if recognition of wake-up word has issues.
- Keyword acceptance threshold	Change this if recognition of keywords has some problems or it's too sensitive. As a default this is set to 'normal'. If

	<p>commands are not recognized easily – change this first to ‘low’.</p> <p>Keywords are commands like ‘yes’, ‘no’, ‘answer’, ‘reject’...</p>
- Eased keyword detection	<p>If recognition of wake-up word or wake-up word (‘Housemate’) doesn’t work for speaker e.g. because of problems in speaking then setting this on will help for recognition – it’ll take shorter list of keyword decoys in use.</p> <p>Downside is that wake-up or key word might be too sensitive especially if there’s lots of speaking and background noise on environment.</p> <p>As a default this setting is off.</p>
- Custom decoy settings	<p>If user cannot get specific keyword or wake-up word to work at all – use debug-mode to find out which decoy word is recognized.</p> <p>Then use this setting to remove such a decoy from decoy word list.</p>
- Sensitive recording	<p>With this setting it’s possible to turn on more sensitive recording mode. Use this setting if speaker’s voice is quiet and weak for example because of oxygen mask or ALS. As a downside, if environment is noisy – the recording might take longer to end.</p>
- Wake-up word	Setting for wake-up word – if it’s in use or not.
- Noise pre-filter	Uses special algorithm for better adaption for specially noisy environments. On quiet places this feature is not optimal.
Messaging	SMS messaging settings
- Default SMS composing mode	<p>Sets the default SMS composing mode, see SMS sending for more information about the speech commands and how this affects.</p> <p>Options:</p> <ul style="list-style-type: none"> • Dictate message, requires internet connection • Compose message, default input-method • Select template, uses ready-made templates, doesn’t need internet connection
- Message templates	Shows the message templates and options to add new and modify existing ones.
- Speak incoming SMS info	If this setting is on, the incoming SMS information is speak aloud when message is received. It’ll speak only the sender information not the message. For the whole message user must use ‘read message’ command.
Call settings	Settings for call handling
- Speaker mode	As default: ‘always on’, the automatic setting uses proximity sensor to detect if phone is held ‘on the ear’ to turn speaker off and via versa.
- Speak caller name	If this setting is on, the application will speak aloud the caller information if found from the phone book.
- Use system ringtone	<p>With this setting it’s possible enable or disable system ringtone. In some devices the default ringing tone is quiet, so disabling the system ringtone takes better suited ringing tone in use.</p> <p>Disable the system ringtone in case you have problems hearing the phone ringing. As a default this is on.</p>
- Custom call screen	<p>If this setting is on, the application uses simplified call screen (the full screen answer/reject windows).</p> <p>As a default this is on.</p>
- Answer by voice command	If this setting is on, the application asks with incoming call whether user wants to answer or reject the incoming call.
- End call by voice command	<p>If this setting is on, the user can use voice command ‘hang up’ – to hang up the ongoing call.</p> <p>Please note that this feature is not available on all models</p>

	due different handling of on call recognition.
- Answer automatically	This setting opens that contact list from which user can select the numbers that are automatically answered after given delay. As a default no number is selected.
- Auto-answer delay	Delay for auto-answering (the previous setting), delay can be from 0 to 60 seconds. Default is 10 seconds.
- Answer all calls automatically	With this setting all calls are answered automatically.
- Answer with proximity sensor	Setting for proximity sensor usage for answering the incoming call. As a default this is on.
- End call with proximity sensor	Setting for proximity sensor usage for ending the call. As a default this is off.
- Bring to front after call	Ensures that DialoQ is on top when call ends. Use this for better compatibility with HouseMate.
Accessibility switches	Settings for switch use and scanning
- Use Kajo button	Setting for Kajo – button (wired switch) usage. With this option the headset – connector is used for switch and still audio routed to speakers and phone’s microphone is in use. More information about the switch: http://www.kajo.fi/en/products/kajobutton
- External button action	Start speech command – same as ‘wake-up-word’ Service call – direct call to one number when switch is pressed Call list – scan through the call list and second press starts call to number.
- Programmable commands	Switch scanning commands and actions: 1. Programmable commands 2. Scanning actions Please refer another document how to set up switches and scanning for DialoQ Mobile.
- Service call phone number	Number for direct service call – feature
- Call list contacts	Opens contact list from which user can select numbers that are used on call list – switch feature.
- Emergency message	DialoQ Built-in emergency message
- Alarm plays until dismissed	Alarm plays until it’s dismissed by using the touch screen
- Allow dismissing alarm with buttons	Use also switches to dismiss the alarm
- Speak on scanning	Speak while scanning
- Scanning delay	Scanning delay
- Switch adapter	Switch configuration – connect the adapter to the phone and press switch to add it to DialoQ
Environmental control	Settings for environmental control like Housemate
EWA Smart Plug	Support for EWA Home Smart plug (1.0) – requires EWA account and smart plug. More info: https://ewahome.com/
- EWA account	Account info for EWA plug.
- EWA password	Password for EWA account.
HouseMate commands	Add housemate commands using this setting.
Tellstick	Tellstick Live settings (use in same local network as DialoQ Mobile device) https://telldus.com/telldus-live-en/ device: TellStick ZNet Lite v2
IRTrans	IRTrans settings (use in same local network as DialoQ Mobile device) http://www.irtrans.de/en/shop/lan.php device: IRT-LAN-DB
Other features	other DialoQ features
- Weather information when the alarm...	The weather information is speak aloud with alarm clock.
- Favourite locations	Locations used with ‘weather’ – command.
- Audio log	Voice memo settings
- Daily report	Activity report settings – for SMS based user activity

	reporting for family member / caring personnel
- RSS news reader	RSS news reader settings like news sources and text to speech settings for RSS
- Web browser	Favourite websites and other settings for browser
Bring to front before sleep	If user uses phone with other features – this settings ensures that DialoQ is on top when phone goes to sleep.
Show example commands	Setting for showing the example commands on the bottom of main screen. As a default this is on.
TTS additional delay	use this for better compatibility with some TTS solutions which report speak delay incorrectly
Debug mode	If there's a problem using DialoQ – for example with recognition, set this feature on and reproduce the problem. Once done – user can send the debug-log for Code-Q with explanation about the issue. If you add your contact-information with the log, we'll get back to you with proposal or correction. The sending of debug-log will be automatically asked when debug mode is set off again. Debug mode can be also used for finding out right decoy words for wake-up word and keywords.
Send error report	You can send the error report using this feature.
Backup settings	Creates backup from DialoQ settings
Restore backup	Restores settings from backup file.
Restore default settings.	Resets all settings (also for example HouseMate commands created for DialoQ voice control)
About DialoQ	Information about the DialoQ Mobile – for example version number and license ID.

5. DialoQ mobile supported speech commands (version 2.0.x)

Calls, videocalls and short messages:

Command	Example	Information
Call <name> Call to <name>	"Call Mary"	Call to a contact, contact name must be in contact list.
Call number <number> Call to number <number>	"Call Number +46 12345678"	Call to a phonenumber.
Video call < name > Video call to < name >	"Video call Ove" "Video call to Ove Sundberg"	Call to a contact, contact name must be in contact list.
Video call < number > Video call to < number >	"Video call to number 045 123 4567"	Video call to a number.
Call back Call back my last missed call	"Call back"	Call back to a last missed call.
Redial Redial last number	"Redial"	Redial to a last number.
Who called me? Who just called me?	"Who just called me?"	DialoQ tells you information about the last missed called.
send a text message <name or number> send a text message to <name or number> text to <name or number> send a message to <name or number> a text message <name or number> send a text message to <name or number>	"send a text message to Fredde" "text to Fredde Schiller" "text to +358 50"	Send a short message (SMS) using the default SMS composing mode.
dictate a message <name or number> dictate a message to <name or number> dictate a text message <name or number> dictate a text message to <name or number>	"dictate a message to Fredde"	Dictate short message (SMS) to a contact or number. Dictation is selected for SMS composing regardless of default composing mode. Dictation requires internet – connection.
pick a message <name or number> pick a message to <name or number> pick a text message <name or number> pick a text message to <name or number>	"pick a message to Fredde"	Opens the predefined SMS templates for SMS composing. In a predefined list user needs to pick a message e.g. 'see you at 6' Note that predefined list supports dynamic fields for numbers and time. Predefined SMS templates can be send without using the internet connection.
read messages read a message read a text message read me my messages	"read a text message"	Reads the latest text message or current message (when browsing messages).
read previous message read previous text message	"read previous message"	Reads the previous text message.
read next message read next text message	"read next message"	Reads the next text message
next message next text message	"next message"	Browses to the next message (not reading it aloud).
previous message previous text message	"previous message"	Browses to the previous message (not reading it aloud).
reply to a message	"reply message"	Reply to latest message or current

reply to a text message reply message reply text message		active message when browsing messages.
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Answer or reject the incoming call:

<i>Command</i>	<i>Example</i>	<i>Information</i>
answer	"answer"	Answer to a incoming call
reject	"reject"	Reject the incoming call.

< name > can be:

	<i>Exempel</i>
<first name>	"Call Ove"
<first name><last name>	"Call Ove Sundberg"

If you have more than one person with same first name and use first name for calling – DialoQ will ask which one to call.som du vill ringa till.

Commands for dialogs/verifying actions:

<i>Command</i>	
'Yes'	Answer 'Yes' if you want to execute the recognized command – for example when phone recognizes the command 'Ring Mary?'.
'No'	Answer 'No' if you want to cancel the command.
'Cancel'	Answer 'Cancel' if you want to cancel the command.

Commands during the phone call:

<i>Command</i>	<i>Information</i>
"hang up"	During the call 'hang up' command closes the ongoing call. This command is set off by default and is available only on limited supported models (see the list in the end of the document).

Other commands:

<i>Command</i>	<i>Example</i>	<i>Information</i>
clear history clear the screen	"clear the screen"	Removes the phone usage history from DialoQ main screen.
silent mode on silent on	"Silent on"	Sets the silent mode on.
silent mode off silent off	"Silent mode off"	Sets the sounds back on (silent mode off). Silent mode equals to Android drop down menu sound on / off.
what time is it? current time	"current time"	Reads aloud the current time.
date what date is it what date is it please	"date"	Reads aloud the current date.
mobile data on (obsolete)	"mobile data on"	Sets the mobile data on, doesn't work on new Android OS's.
mobile data off (obsolete)	"mobile data off"	Sets the mobile data off, doesn't work on new Android OS's.
weather what's the weather weather today	"weather" "weather tomorrow"	Reads aloud the weather information either the current weather or forecast for today or tomorrow. Location is

what's the weather today weather tomorrow what's the weather tomorrow		read from GPS signal. Requires internet and GPS connection.
what's the weather in <place> weather in <place> weather in <place> today weather in <place> tomorrow	"weather in London"	Reads aloud the weather information for favourite location (predefined location name in DialoQ settings). Requires internet connection.
Phone status	"Phone status"	Tells the phone information like battery and signal levels etc.
Battery status	"Battery status"	Tells the battery status
Set alarm <time>	"Set alarm 14.00"	Sets DialoQ built-in alarm
Remove alarm	"Remove alarm"	Removes the set alarm.
Alarm status	"Alarm status"	Ask the alarm time

Commands for RSS- newsreader:

Command	Information
"News"	opens the news source list.
"Read news"	reads the current news item (using the current news index)
"Next / previous news item"	Changes the news index to next/previous item
"Read next news item"	reads the next news item
"Read previous news item"	reads the previous news item

Commands for Internet browser:

Command	Information
"Open website <site>"	Opens the webpage that defined in settings (favourite pages), example 'open website Naidex'
"Scroll down", "Scroll"	Scrolls down the webpage
"Scroll up"	Scrolls up the webpage
"Select"	Starts selection mode at webpage – for example opening links etc.
"Close browser"	Closes the browser.

Commands for Voice memo / Audio log:

Command	Information
"Record audio log"	Records the voice memo
"Listen audio log"	Listen the current voice memo – one that voice memo index is pointing
"Listen audio log <index>"	Listens the voice memo in given index
"Listen next / previous audio log"	Listens directly the next or previous audio log
"Next audio log"	Change the voice memo index to next one
"Previous audio log"	Change the voice memo index to previous one
"Delete audio log"	Deletes the current voice memo – one that index is pointing

Commands for HouseMate and other Environmental control systems:

Command	Information
"Home control commands"	Reads aloud all configured voice commands for Environmental control usage.
<HouseMate/other command>	Configured voice command for HouseMate/other usage for example: 'lamp'

6. Application requirements and supported mobile phones

Application requirements:

- Android OS 6.x or newer
- Device must have both phone and short message support to be able to use these features
- Internet connection (mobile data or Wi-Fi) for registration process (less than 100kb) and dictation support (in case free speech dictation used for short messages)
- TTS – text to speech for wanted language for speech dialog support. Google TTS is suitable.

Application is tested with following mobile phones. Android OS version for tested model is listed on more information field, also in case there's something special for user to know when using that mobile phone – that's listed.

<i>Mobile phone</i>	<i>More information</i>
Samsung Galaxy S8	Android OS 7.0.1 Android OS 8.0
Samsung Galaxy S7	Android OS 7.0 or newer
Samsung Galaxy J3 2017	Android OS 7.0 or newer
Samsung Galaxy J5 2016	Android OS 6.0 or newer
Samsung Galaxy J5 2017	Android OS 7.0 or newer
Samsung Galaxy J6	Android OS 8.0
Samsung Galaxy A6	Android OS 8.0
Nokia (HMD) 6	Android OS 8.1

DialoQ Mobile is mainly used with:
Samsung J5 or
Samsung J6

7. Troubleshooting

<i>Problem</i>	<i>Information</i>
Wake-up word is not recognized	Please tune the recognition settings, remember that first few tries (3-5) will be for microphone adaption and thus not reliable.
Device won't recognize the wake-up word or commands even after changing settings	Ensure that you're on quiet place. Background noise will affect to wake-up word recognition. Try to give command clearly during the time frame indicated by time line.
Application recognizes first command, but after that cannot recognize anything.	Ensure that text to speech works. If you've installed SVOX evaluation version on Play-store, and evaluation period has expired the defect on SVOX will prevent DialoQ working (DialoQ will wait TTS to end – even it hasn't started, but SVOX won't inform failure to calling application). So either: <ol style="list-style-type: none"> 1) acquire full version of SVOX 2) install some other TTS engine 3) use build-in TTS engine
Dictation of SMS doesn't work.	Dictation requires internet-connection either via mobiledata or Wi-Fi.
Internet connection works, but dictation is not correct.	Ensure that you're on quiet place. Background noise will affect to speech recognition and especially for dictation. Try to keep dictated sentence simple enough.
Can I dictate without internet connection.	Unfortunately not, but DialoQ includes fully speech controlled short message templates. So basic answers can be send without internet connection. Message templates also support dynamic fields for example for numbers and time.
I want to dictate more than one sentence.	Dictation is only for one sentence short messages. Longer dictation would require some speech controlled editing features. DialoQ desktop is available for Windows PC – that enables fully speech controlled editing for longer messages like Facebook, Chat or e-mails.
Videocalls are not working.	Both caller and receiver devices needs to support videocalls via mobile network to be able to support this feature. Samsung Android devices usually supports this.
Proximity sensor support doesn't work.	Ensure that your device supports proximity sensor. Sensor is located on front of device usually up close to front camera. Proximity sensor needs to be covered quite close (approx. 5cm from device) and during 2 seconds

	period.
Call to <contact x> won't work at all.	Ensure that contact name <contact x's> is written without special characters in the contact list. Also don't use terms like Mrs. or Mr. in front of name as they are not very easy to recognize with speech recognition.
Speech recognition doesn't open message templates.	Predefined message templates cannot include any special characters. Only special characters allowed are macros for dynamic fields {time} and {number}. Modify the message template or just remove it and rewrite without special characters.
Text To Speech fails with some sentences or telling the current time.	Unfortunately there are some known issues with text to speech – engines. Try different engines (build-in engine or Play-store's Vocalizer as an example).
Mobile's 'call waiting' – feature doesn't work when answering with speech.	This is known issue. Unfortunately switching the state from ongoing call to 'call waiting' is not possible with speech commands. We recommend to switch off the 'call waiting' – feature from phone settings.
There's an information note popping up on the screen telling: 'SVOX Classic TTS is stopped'.	SVOX Classic is not very compatible with new Android OS's. Either install another TTS engine or check updates for SVOX TTS. Phone will recover from the notification – just wait for few minutes (approx. 5min) and SVOX will restart and notification disappears.
Results for free speech dictation are for some other language than expected.	Go to the phone settings and check: System – language and input – input methods -> Google Voice – input -> language -> Swedish

7. Contact information and feedback

We're more than happy to hear from you and get ideas about improvements.

You can contact us by:

dialog@code-q.fi

or via mail:

Code-Q Oy / customer feedback
Kirkkokatu 19 A 30
90100 OULU
Finland

Be free to contact us regarding the DialoQ or any other speech recognition or accessibility software matter you have.