

mQuest

a product of **CLUETEC** 

mQuest[®] Client Manual

Version 11.0

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1 Introduction

mQuest Client allows you to comfortably realize your surveys at any location with the help of a mobile device. A project with the associated questionnaire has to be loaded only once from the QuestServer, subsequently allowing many surveys to be carried out **off-line**, which are stored on the mobile device. Therefore, connection to the QuestServer during the survey is not necessary. You can, at a later time, transfer the data sets to the QuestServer. Only at that time a connection to the QuestServer is established.

If you have the appropriate connection possibilities at your disposal you can also transfer the data sets after every survey.

The surveys can have different states:

- active, i.e. it is in progress
- paused (still incomplete, can be continued any time)
- canceled (data sets conducted so far are available, if **Cancelled questionings** is set to **Keep** in the questionnaire)
- completed (complete data set available)



The connection possibilities between the mQuest Client and the QuestServer depend on the hardware equipment of the mobile device and the available network infrastructure. It is possible to establish local connections via cable or connections via WiFi as well as the mobile communications network.



The number of the stored surveys on the mobile device and the corresponding data sets depends on the storage capacity of your mobile device. With normal projects several thousand data sets can normally be stored. If Media input questions are used, the number of possible data sets is strongly dependent on the storage space needed for the multimedia files.

For questions regarding storage capacity of your mobile device, please contact your system administrator.



All data sets of the surveys will be stored on the mQuest Client. The data sets are deleted from the mQuest Client only after successful transmission to the QuestServer. If the connection is interrupted during the transmission, the data sets will still be stored on the mQuest Client.



For communication with the QuestServer, e.g., loading a project or transferring data sets, a connection to the QuestServer is necessary. For such actions the QuestServer must be started and accessible for the mQuest Client.

If problems occur while communicating with the QuestServer, please contact your system administrator.

1.1 Mobile operating systems

mQuest runs on mobile devices with the operating systems **Apple iOS** or **Google Android** installed.



This documentation is focused on devices with Google Android. This applies to the text as well as to the images.

There are minor deviations of design, handling and the range of functions for Apple iOS devices. (→ Details see mQuest manual)

1.2 Handling the mobile device

1.2.1 Rotate the display

For devices with a display which can be rotated by 90°, e.g., in order to use the built-in hardware keyboard, the display content rotates along with it. The mQuest Client screen will always be displayed in correspondence with the monitor rotation in portrait or landscape format.

1.2.2 Virtual keyboard

For text input you can allow a virtual keyboard to be displayed.

OPENING THE VIRTUAL KEYBOARD:

→ Tap into the input field.

CLOSING THE VIRTUAL KEYBOARD:

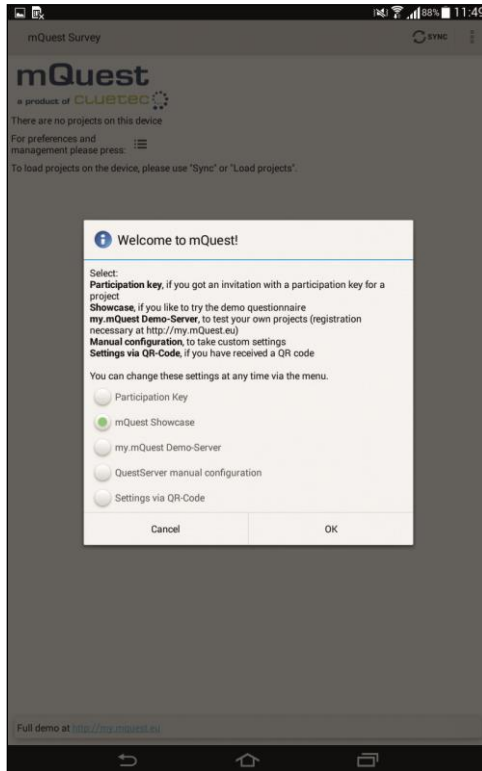
→ Tap on the symbol at the lower edge of the display.



1.3 Start mQuest Client

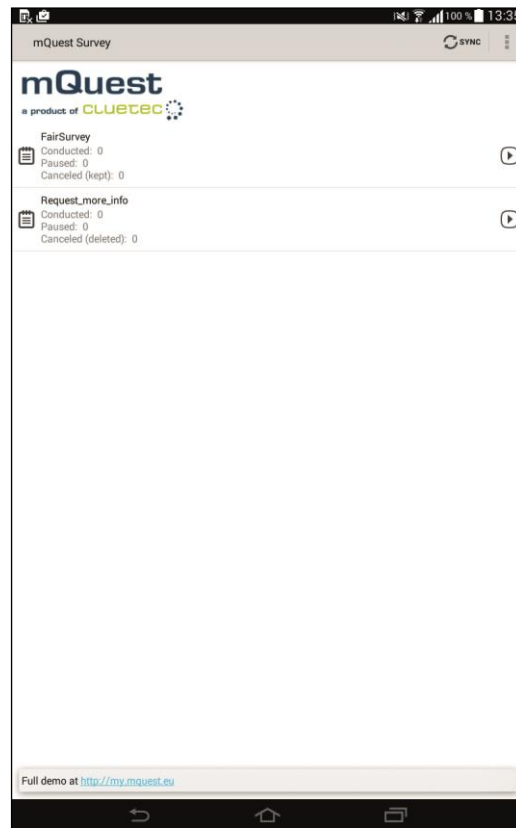
→ Tap on the **mQuest Icon** on your mobile device.

If you start the mQuest Client for the first time, the welcome screen will appear.





If you have started the mQuest Client previously, the main screen of the mQuest Client will appear.

Depending on whether there are projects on the mQuest Client or not, you will receive different views of the main screen.

Main screen without projects:**Main screen with projects:**

In the main display the available projects are listed. You can select a project and start a survey with **Start** (→ See also Page 12).

With the button **Sync**  you can use the Sync function in order to synchronize projects and data sets (→ See also Page 11).

Furthermore, by tapping the button **Menu** , you have the possibility to manage the projects and the data sets and to adjust several settings (→ See also Page 7).

The current battery charge condition of your mobile device is displayed at the upper edge of the main display and the menu.

The three pieces of information below the project name have the following meaning:

- The first number specifies how many surveys were carried out with this project questionnaire since the last synchronization.
- The second number specifies how many surveys are paused.
- The third number specifies how many surveys were canceled. However, this number will only be displayed after the first survey was canceled and if the function **keep canceled questionings** is activated for the project. Until the next synchronization it will be increased with every canceled survey.

When you select a project, the project screen will be displayed. There you will find additional information on the project such as the version number. The version number is marked by the letter **V** followed by the version number. The version number is increased automatically with every changing of the project.

Furthermore the temp counter and the number of not synchronized media data are shown.

1.4 Exit mQuest Client

→ Tap on **Menu** > **Exit** in the main display.

1.5 mQuest Client main menu

→ Tap on **Menu** in the main display to reach the main menu.



The main menu contains the following items:

- **Project management**
Load project questionnaires from the QuestServer onto the mQuest Client (→ See also Page 9) or delete projects.
- **Settings**
Here you carry out different settings which are necessary, for example to communicate with the QuestServer (→ See also Page 36).
- **Global variables**
Carry out settings for the Global variables (→ See also Page 40).
- **System overview**
Shows detailed information on device, connectivity and QuestServer.
- **About**
Shows information on mQuest Client.
- **Exit**
Exits mQuest Client.

1.6 mQuest Client Project Menu

→ Tap **Menu** in the project screen to get to the project menu.

The project menu contains the following items:

- **Continue paused survey**
Resume with a previously paused survey (→ See also Page 33).
- **Delete recorded data**
Deletes all data belonging to that project on the device (→ See also Page 10).
- **Reset temp counter**
Resets the temp counter to 0.
- **Review recorded data sets**
Allows reviewing and changing data sets, if enabled in the project. (→ See also Page 33)

2 Manage projects and data sets



In order to manage the projects and the data sets, the QuestServer must be started.

2.1 Load projects

1. Tap on **Menu > Project management > Load project**.
A list of the available projects on the QuestServer will be displayed.
2. Select the desired project(s). Confirm the selection with **Ok**.
The selected projects will be loaded from the QuestServer and will then be available on the mQuest Client for surveys.



Please note that when loading a project which has the same name as a project already available on the mQuest Client, the project will not be loaded. If you want to update an already loaded project, use the button **Sync**.

2.2 Create data backup

The data sets can be transferred into the internal memory of the mobile device.

1. In the main display, tap on **Menu > Settings > Create data backup**.
2. Confirm with **Ok**.
A confirmation will appear that all data sets were transferred successfully to the memory card and that you can now remove the memory card.



All surveys will be transferred to the memory; this also includes canceled and paused surveys.

2.3 Delete data sets

In practice it might occur that you do not want to upload certain data sets to the QuestServer, but would like to delete them immediately.



Please note that you cannot delete single survey data sets, but only **all** data sets of a project.

DELETE DATA SETS

1. Select the desired project in the main screen.
2. Tap **Menu > Delete recorded data**.
3. Confirm the safety message with **Yes**.
4. Complete the process with **Ok**.

2.4 Delete projects

If you would like to delete not only the data sets but also the corresponding projects from the mQuest Client, continue as follows:



Please note that by deleting a project you are also deleting all of its data sets.

1. In the main display, tap on **Menu > Project management > Delete project**.
2. Select the desired project(s) and tap on **Ok**.
3. Confirm the displayed safety message with **Yes**.

2.5 Sync

Sync is used for the synchronization between the QuestServer and the mQuest Client. The following will be synchronized in the process:


- **Data sets**
All data sets on the mQuest Client will be transferred to the QuestServer. The data sets will then be deleted on the mQuest Client.
- **Projects**
If new project versions exist on the QuestServer, the existing projects on the mQuest Client will be updated. In order to get updated, the old project version must be on the QuestServer.

Data sets of the old project version will be transferred to the QuestServer beforehand.
(→ See **mQuest Manual** for the compatibility of different project versions.)

! Project questionnaires are **updated** during sync, i.e. no new project questionnaires are transferred from the QuestServer to the mQuest Client.

- **Quota values**
With a Sync the quota values will get synchronized too. If a quota value on the QuestServer has changed in the meantime, e.g. because of other Clients or by manually changing it in the QuestAdmin, the new value will be transferred to the Client when synchronizing.
- **Date and time**
Sync sets the date and time (if it has not been set yet).

USING SYNC

→ In the main screen, tap on **Sync** .

The synchronization will be executed automatically.

i You have the possibility to only synchronize multimedia files when there is a WiFi connection available (for further information on this setting, see the mQuest manual, chapter 13.1 “Configure mQuest Client via QR codes”).

3 Conducting the survey



If there is no project available, you must first load the desired project.

3.1 Starting the survey

1. Select the desired **project** in the main display.

The project screen opens.

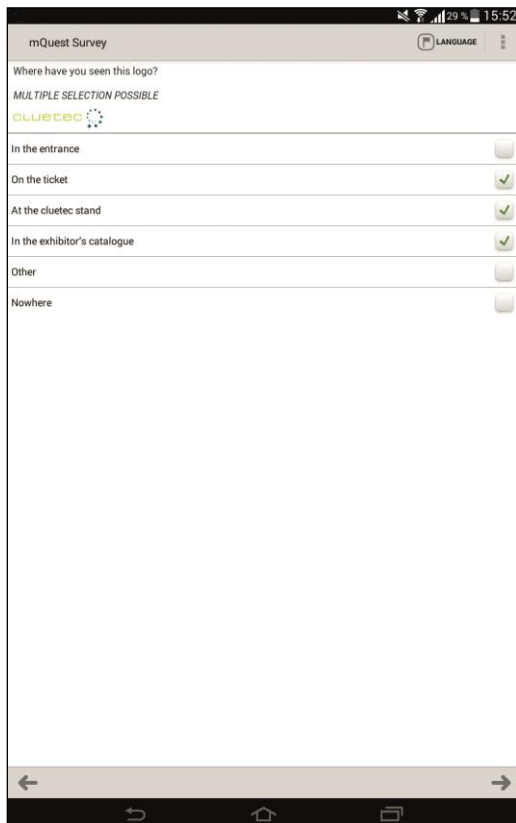
2. Tap on **Start**.

The survey will be started.



3.2 Survey screen

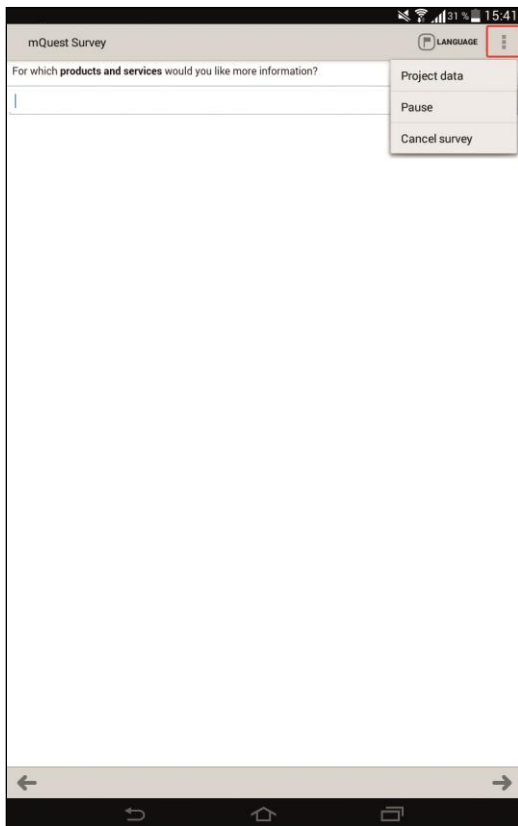
Basically the screen is always composed of the same components during the survey: Question text, answer possibilities or operating elements (for Media input questions) as well as optionally an image. At the lower bottom of the screen you will find the **Next**- and **Back**-arrows. In the headline of the screen you will find the menu, the question title or the standard question title, if it exists for the question.



3.3 Survey menu

→ Tap the **Menu Button** to enter the survey menu.

The menu items depend on the question type and the project preferences.



- **Cancel survey**
Cancels the current survey



If you have not yet finished a survey and you tap **Cancel survey**, it depends on the settings of the project whether the previous data sets will be kept or deleted.

- **Help**
Displays the help text to this question
- **Hint**
Displays the hint text to this question
- **Project data**
Displays project data of a project
- **Pause interview**
Pauses the current survey, so that it can be continued at a later time (→ See also Page 32)
- **Delete current input**
Deletes the entered text

3.4 Hints on conducting the survey

3.4.1 General information

- Tap on the **Back-arrow** or on the **Next-arrow** to return to the previous or to go to the next question in the project questionnaire.



When you navigate through your project questionnaire with **Next-arrow** and **Back-arrow**, all of your entries will be kept. Therefore, it enables you to return and review your entries at any time and, if necessary, to make corrections to already answered questions.

DISPLAYING HELP TEXT:

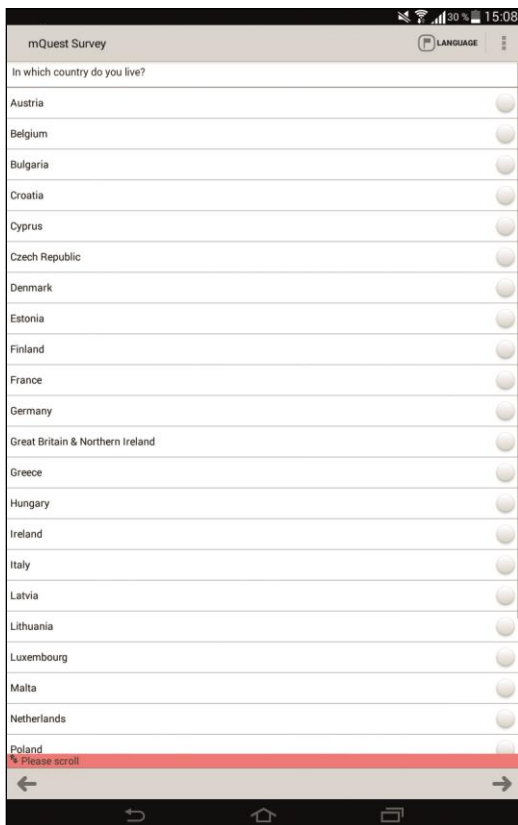
- Tap **Menu Button > Help** to access the help text.
- After you have read the help text you end the displayed help again with **OK**.

DISPLAYING HINT TEXT:

- Tap on **Menu Button > Hint** to access hint texts.

SCROLLING:

If the content of a question cannot be completely shown on the display, a scrollbar appears on the right-hand side of the display screen. In order to scroll the content up or down, pull the screen content in the corresponding direction.



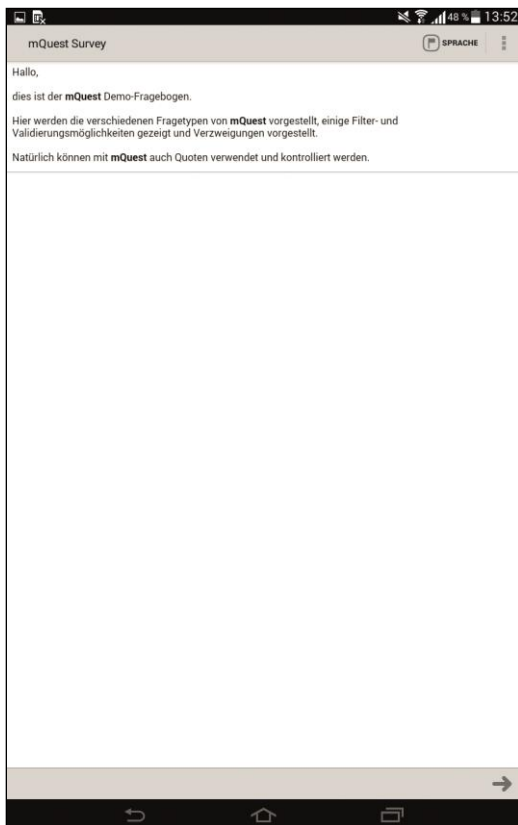
SELECTING ANSWERS:

- Tap on the suitable answer in order to select an answer with **Single selection**, **Multiple selection** or a **Ranking**. You can tap the radio button as well as the entire line.

3.4.2 Message

It displays an image or a text, e.g. a greeting text or additional information for the following question. A Message is also often used to distribute a long question to several display pages in order to avoid scrolling.

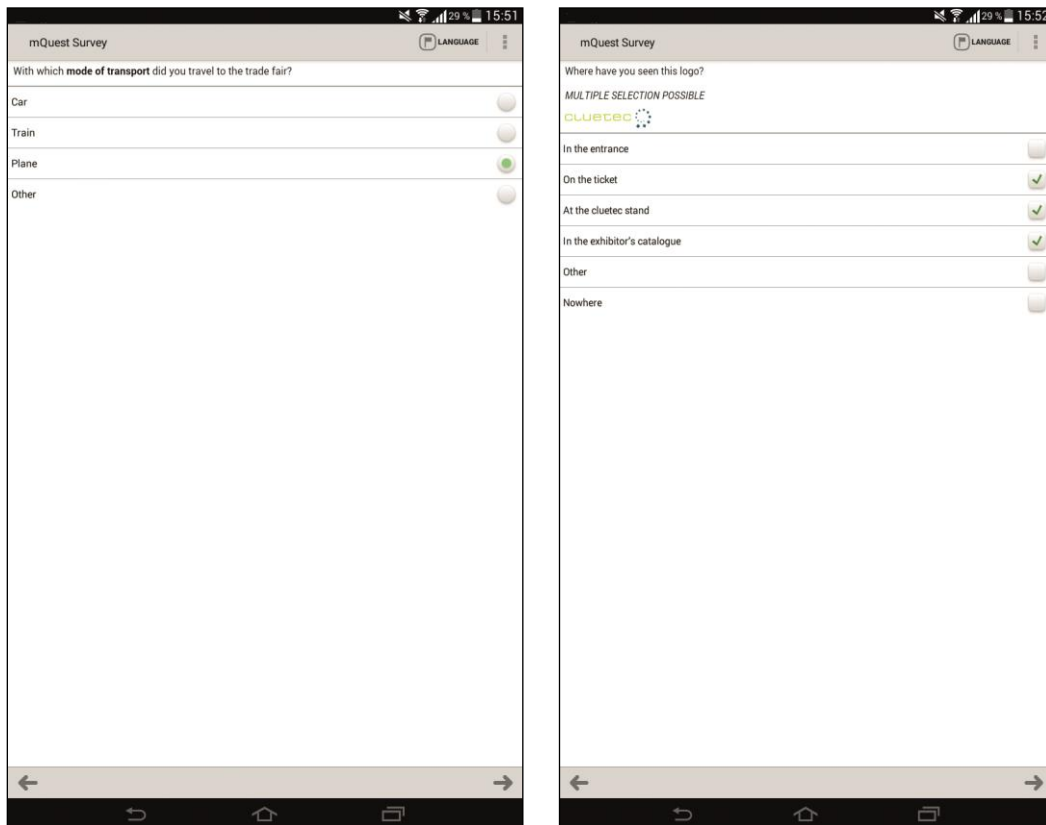
- After you have read the text, tap **Next-arrow**.



3.4.3 Single selection / Multiple selection

A **Single selection (on the left)** allows for only one answer from a **vertical list** to be selected. An answer must be selected in order to continue with the survey.

A **Multiple selection (on the right)** allows for several answers in a **vertical list** to be selected.



SELECTING AN ANSWER:

- Tap to select the corresponding answer with the question type **Single selection** or **Multiple selection**.

You can recognize a **Single selection** by a radio button. When you select an answer with **Multiple selection**, a tick will be displayed in the box.

If the **QuickClick** preference has been enabled in the questionnaire for a question type **Single selection**, you are automatically sent to the next question as soon as you have selected an answer.

UNDOING ANSWERS:

- Tap the chosen answer once again to undo an answer of a **Multiple selection**.

When an **ImageMap** (area-sensitive graphic) for the question type **Single selection** or **Multiple selection** has been specified in the questionnaire, you can tap and select one or

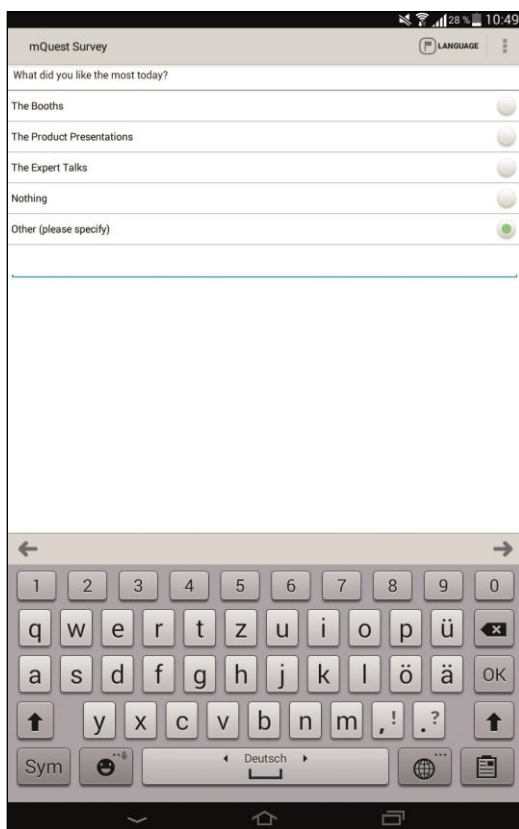
several areas, depending on the question type, in the displayed graphic. Each selectable area in the graphic corresponds to an answer possibility.

When a **Single answer** configured answer has been selected for a **Multiple selection** question, no other answers for this question are possible. All other selected answers, if applicable, will automatically be unselected.



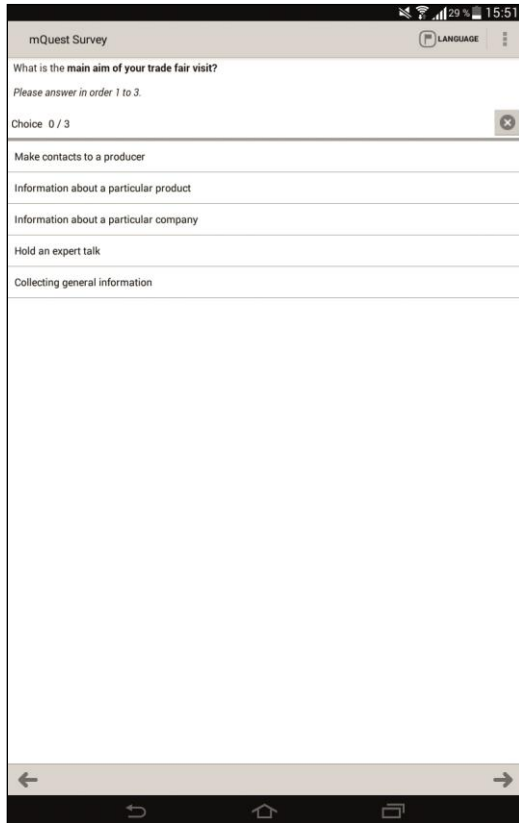
A **Single answer** is an answer that excludes all the other answer possibilities, e.g., “None” or “Not applicable”.

When an open-ended text answer can be given with the question type Single selection, you have to additionally select the corresponding answer from the list (e.g.: “Other reasons”). Only then are you able to move to the next question.



3.4.4 Ranking

Provides answer possibilities for the selection of several answers in a desired order of precedence. The first chosen answer is on position 1; the second answer is on position 2 etc. The two figures displayed above the answer possibilities (in this case: 0/3) specify how many positions have already been assigned (in this case: 0) and how many total positions can be assigned (in this case: 3).




SELECTING ANSWERS:

- Tap the corresponding answer in order to select it.
The selected answer will automatically be marked.

Firstly, choose the answer for the first position, then for the second position etc., until you have assigned all positions and reached the maximum number of positions configured for that question.

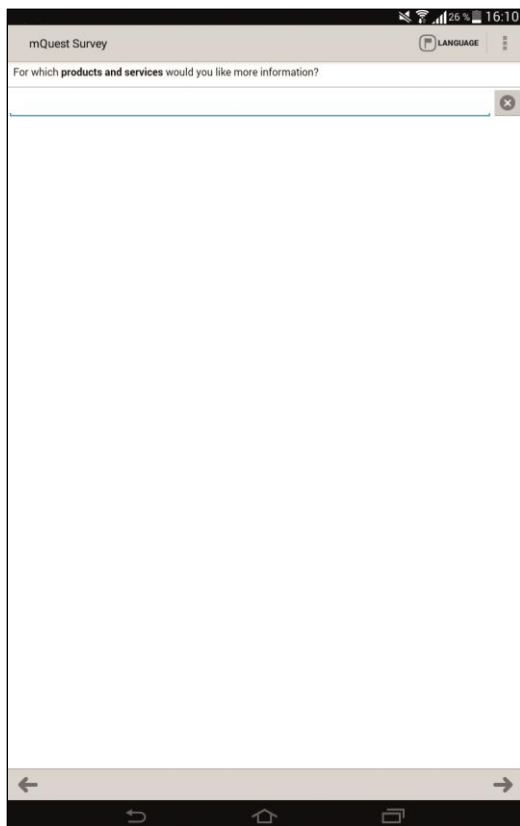
RESETTING THE SELECTION:

- Tap on  **Reset ranking** to reset your entire selection.

In the case that the option **QuickClick** has been enabled in the questionnaire for a question type **Ranking**, the survey will directly jump to the next question as soon as the maximum number of ranking positions configured for this question has been reached.

3.4.5 Text input and Numeric input

A **Text input** provides a text field for the input of an open-ended text answer.

The screenshot shows a mobile application interface for 'mQuest Survey'. At the top, there is a status bar with icons for signal, battery (26%), and time (16:10). Below the status bar is a header bar with the text 'mQuest Survey' on the left and a 'LANGUAGE' button on the right. The main content area contains a question: 'For which products and services would you like more information?'. Below the question is a large, empty text input field with a blue border and a small 'x' icon in the top right corner. At the bottom of the screen is a navigation bar with three icons: a back arrow, a home icon, and a forward arrow.

mQuest Survey

How old are you?

24

← →

1 2 ABC 3 DEF ✕

4 GHI 5 JKL 6 MNO OK

7 PQRS 8 TUV 9 WXYZ SYM

* 0 + # ⚙

mQuest Survey

How do you like the fair overall?

Please use a scale for your rating. 0 stands for "like it very much" and 100 stands for "don't like it at all". You can grade your opinion with the values in between.

Value: 80

0 100

← →

A **Numeric input** provides a **text field (on the left)** for the input of decimal numbers and whole numbers, a **scale (on the right)**, a **date input (on the lower left)** or a **time input (on the lower right)**.

mQuest Survey

Numeric inputs can also be queried in a time or date format. The input becomes easier through the pre-set buttons.

E.g.:
When is your birthday?

16 Nov. 2013

17 Dez. 2014

18 Jan. 2015

← →

mQuest Survey

When did you arrive?

13 04

14 : 05

15 06

← →

With question types **Text input** and **Numeric input** the virtual keyboard of your mobile device automatically opens (→ See also Page 4).

DELETING THE CURRENT INPUT:

- Tap on **delete current input** next to the input field to delete the input of question types **Text input** or **Numeric input**.

You can to jump to the next question by pressing the Enter key on the virtual keyboard with the question type **Text input** if **QuickClick** is enabled in the questionnaire. This option is always enabled with **Numeric inputs**.

If the question type variant **Scale** is activated for a question with the type **Numeric input**, you have to select the desired value with a slide control on a horizontal scale.

3.4.6 Text input with an auto-completion list

With this feature you do not have to enter the entire answer, but after entering the first letters all answer possibilities on the auto-completion list are displayed that begin with these letters, and the desired answer can then be chosen from the list.



Provided that for the auto-completion list a maximum number of matches has been configured, the matching answers will only be shown if the maximum matches number has not been exceeded.

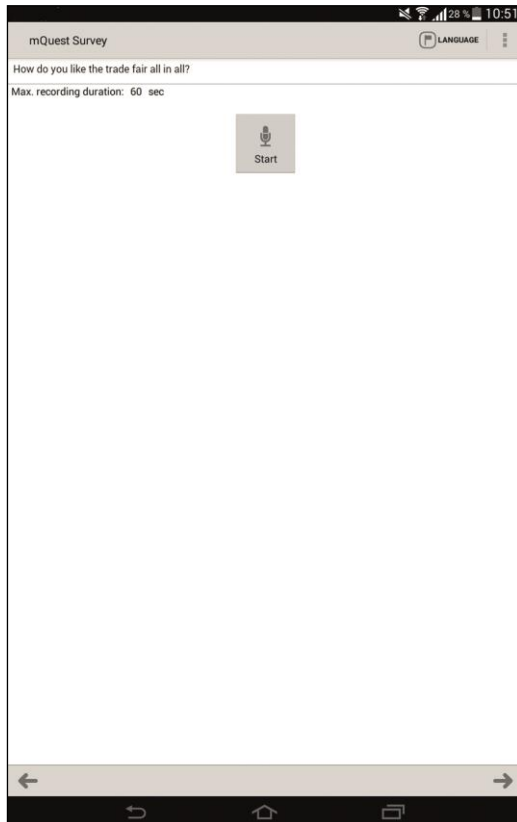


With auto-completion lists the input of open-ended answers which are not included in the list is also possible. This setting can be altered by a property in a way that only answers from the auto-completion list are allowed.

3.4.7 Media input

Media input allows **Audio**, **(markable/multiple) Photo**, **Video recording**, or the capturing of the **Location (GPS)** data (if a GPS module is available in the device) to be used as an answer for a question.

Audio recording



i To guarantee good quality and volume with an audio recording, the maximum distance between the person speaking and the microphone of the mobile device should be 0.3 meters. The quality of the recording always depends on the device in use.

Refer to your mobile device reference manual regarding the position of the microphone to allow for the best possible setting during recording and to avoid covering the microphone, for example with the hand.


STARTING A RECORDING:

→ Tap on  to start a recording.

STOPPING A RECORDING:

→ Tap on  to end a recording.

PLAYING A RECORDING:

→ Tap on  to check/play/display the recording after it has been stopped.

i You turn the loudspeakers of the mobile device on or off via the menu of the mobile device or the corresponding operating element.

DELETING A RECORDING:

→ Tap on  to delete a recording.
You can now start a new recording.

REPEATING A RECORDING:

1. In order to repeat a recording, delete the previous recording.
2. Start a new recording as described above.

Photo / Video recording

With the question type variants **(markable/multiple) Photo** and **Video** the external camera module starts. It is used to capture the photo or video.


Refer to your mobile device reference manual on how to start and end a recording with an external camera module.

A Multi photo question allows you to take several pictures as an answer for a question.

→ Tap the button **Take photo** for each picture you want to take and refer to your mobile device reference manual on how to operate the external camera module.

A preview of your pictures will be displayed immediately after taking the pictures.

It is also possible to delete pictures or videos.

- Tap on  in the top right corner of the preview to delete a picture or video. You can then capture a new photo or video.



The mobile device needs to provide the required hardware in order to record pictures or videos. Please check the availability of the required functions timely, e.g. Apple iPads of the first generation do not provide a camera module.

Location capturing

With the **Location (GPS)** capturing the button **Save location** will be displayed. Above you will see the accuracy of the capturing. Depending on your mobile device and settings, GPS, WiFi, and the current radio cell are used to determine your position.

- Tap on the button **Save location** to save the current GPS coordinates.
*The coordinates will be saved and the button **Save again** will be displayed.*

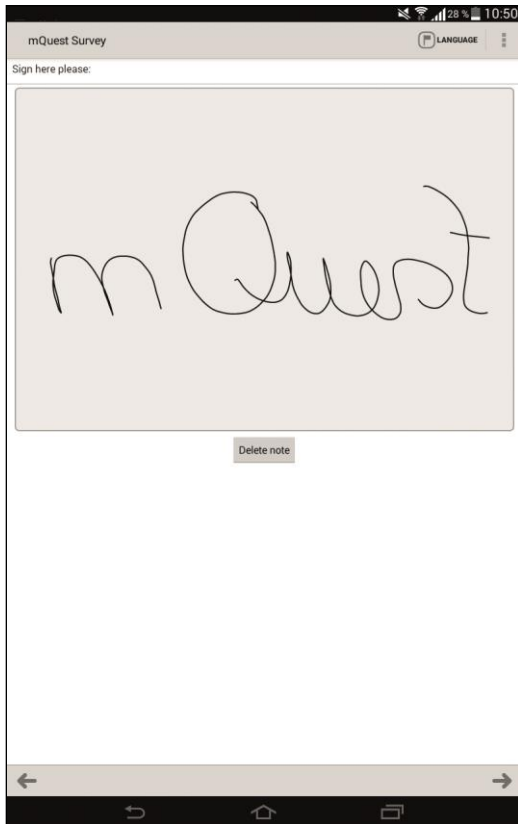
- If necessary, tap on **Save again** to save the coordinates once again.

On devices with Apple iOS you also have the possibility to delete a captured position.

Note

With a **Note**, a field for free hand drawings will be displayed.

→ Draw or write with your fingers in the drawing area.

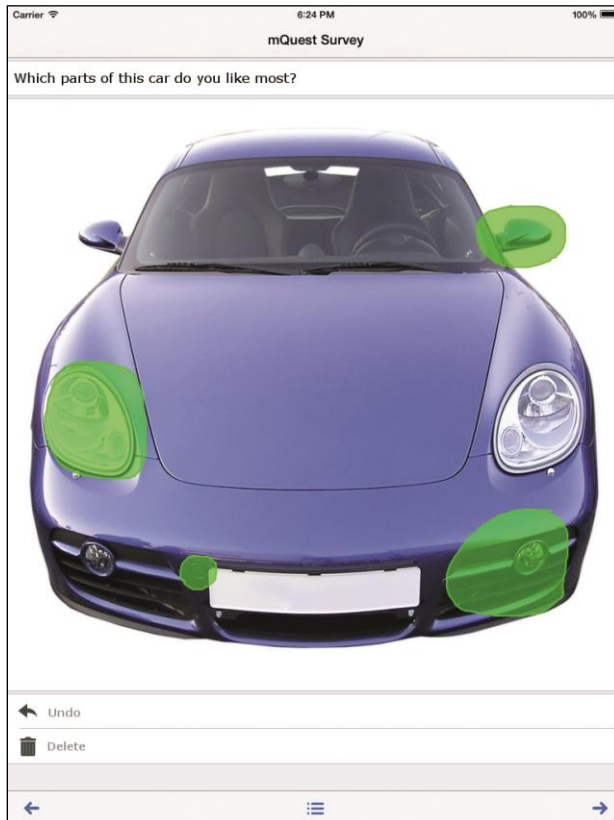


→ If you would like to clear the drawing area, tap **Delete note**.

3.4.8 Heat map

A heat map allows highlighting areas within a graphic.

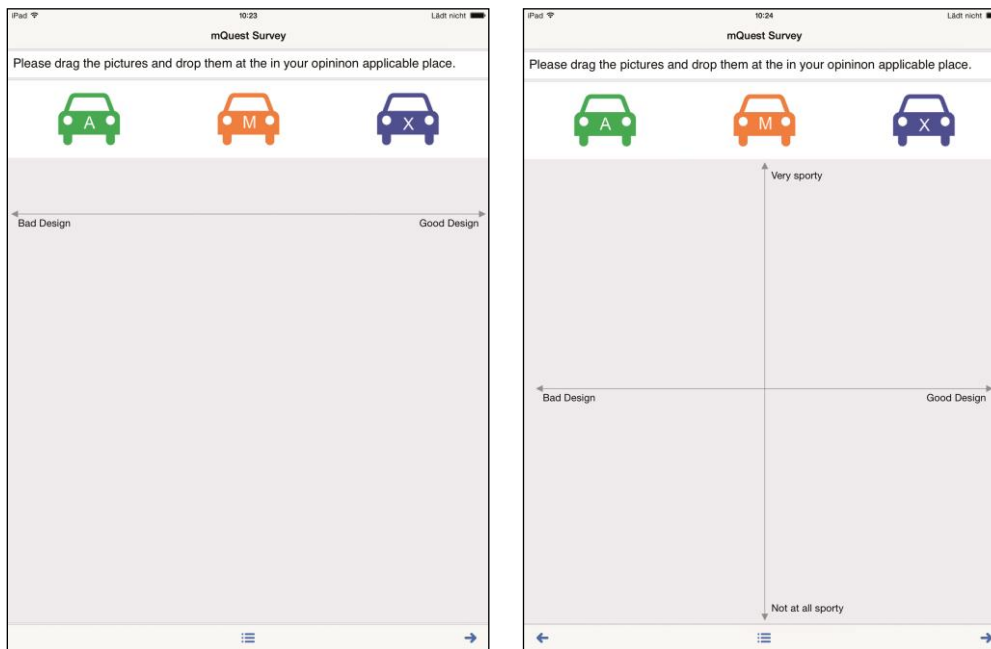
1. Circle the desired area in the graphic with your finger.
As soon as you finish drawing the area will be closed and colored automatically.
2. Repeat step 1 for all desired areas.



With the button **Undo**, you can delete the last highlighted area. With the button **Delete**, you can delete all highlighted areas.

3.4.9 Drag&Drop

Enables the placing of pictures. **Drag&Drop** provides a **1-Dimensional** X-axis (left) or a **2-Dimensional** coordinate system with X-axis and Y-axis (right) depending on the question type variant.



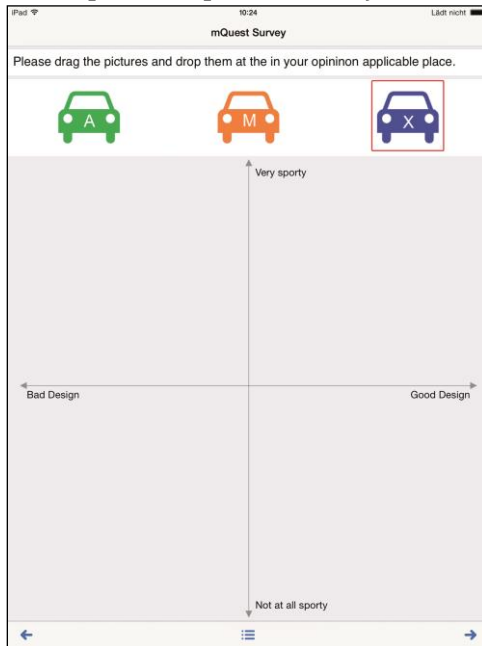
The axes represent a previously defined value range. The appropriate X-value and Y-value (if used) are assigned to every picture according to its placing.



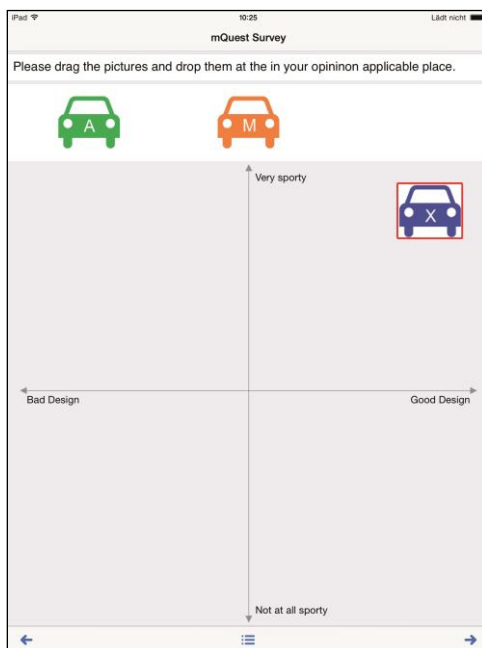
The question type **Drag&Drop** is supported on Android devices from version 4.0 onwards.

PLACING THE PICTURE

1. Tap on the picture that you want to place.



2. Drag the picture to the desired position on the X-axis or in the coordinate system.




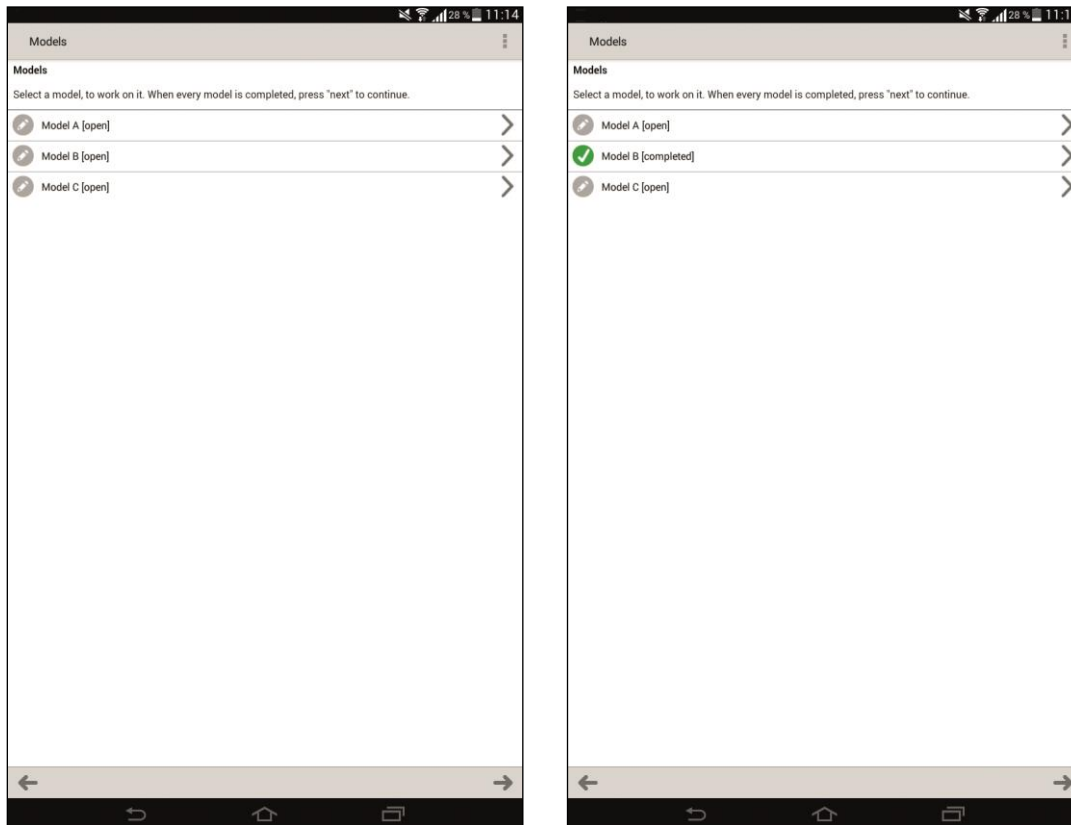
If you do not place the picture on the X-axis with using **1-Dimensional**, it is placed automatically at the appropriate position on the X-axis. If you drag the picture to a position using **2-Dimensional**, it remains at the appropriate position.




For the assignment of the X-value and the Y-value (if used) the center of the picture is decisive. The X-value and the Y-value (if used) are assigned to the center of the picture.


3.4.10 Chapter overview


A chapter overview displays the suitable sub-chapters, which you can select for editing if the superior chapter was defined as **navigable** in the QuestEditor. Not yet edited chapters are marked with the icon  and the suffix **[open]**.

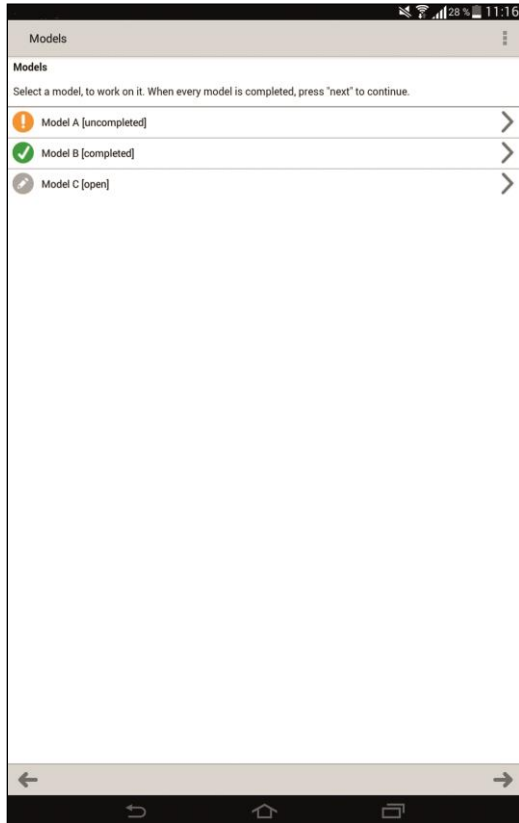


When you have edited a sub-chapter, you are sent back to the chapter overview. An already edited chapter is marked with a green checkmark  and the suffix **[completed]**.

ABORTING A CHAPTER:

→ Tap on  to exit the chapter without completing it.

*The aborted chapter will be marked with the icon  and the suffix **[uncompleted]** in the chapter overview.*



i If you abort a chapter a warning message appears. Tap on **Yes** to return to the chapter overview. The answers given up to this point will be kept. You have the possibility to go on with the aborted chapter later.

LEAVING THE CHAPTER OVERVIEW:

→ When you have edited all sub-chapters, you leave the chapter overview by tapping on **Next-arrow**.

RETURNING TO THE QUESTION BEFORE THE CHAPTER:

→ Tap on **Back-arrow** and confirm the following acknowledgement message with **Yes** to return to the question before the chapter.

! If the questionnaire was configured in a way that one or several of the displayed sub-chapters have to be completed and you try to leave the chapter overview with **Next** without having edited these sub-chapters, you will receive a warning message. You can then decide if you would like to ignore or edit the incomplete sub-chapters by tapping on the displayed sub-chapters.



If you have completed a sub-chapter and call it back up, you will receive a warning message. When re-editing, the sub-chapter has to run through to the end, in order to close it again.

3.5 Cancel survey

→ Tap on **Menu Button > Cancel survey** during the survey in order to cancel it.



Provided that for the project type **continuous** has been configured, a new one will automatically start after every survey. If you would like to end the survey, then you have to cancel it.



A canceled survey cannot be continued again.



The data sets of the canceled survey will be kept or deleted depending on the settings in the project. However, the data sets of the previously carried out surveys will be kept in any case.

3.6 Pause survey

When the **Pause** navigation element in the questionnaire is enabled, you can pause the survey at any time, conduct other surveys or actions in the meantime, and continue the paused survey from the same spot at a later time.

1. During the survey, tap on **Menu Button > Pause interview**.
2. Tap on **Yes** to pause the survey.



A currently running survey is always automatically in a paused state. In case of a system crash of the mobile device, data sets will not get lost and the survey which was just carried out will be continued automatically.

3.7 Continue paused survey

1. In the project screen, tap on **Menu > Continue paused survey**.

All paused surveys belonging to the selected project questionnaire will be displayed with the time stamp of when they were paused. If there is only one paused survey it will be continued immediately.

2. Select the corresponding **Survey** and tap on **OK**.

The selected paused survey will be started, and you will be able to continue the survey from the same spot where you had it previously paused.

3.8 Review data sets

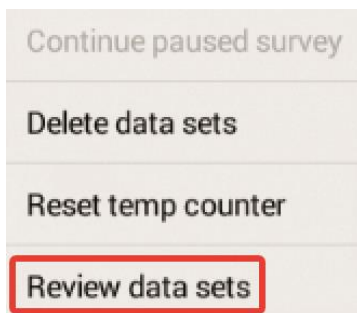
After conducting one or several surveys, you can review the data sets, if this feature was enabled for this project. In this case data sets will only be synchronized when they have been tagged as reviewed.



It is possible that the review function is protected by a password. This makes sure only authorized persons can review and change data sets.

REVIEW DATA SETS

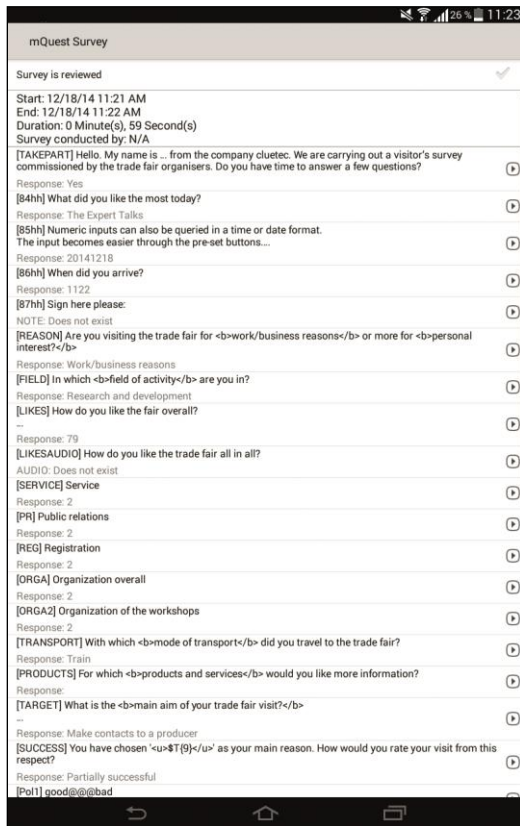
1. Select the desired project from the main menu.
2. Tap **Review recorded data sets** in the project menu.



An overview of recorded data sets is displayed.

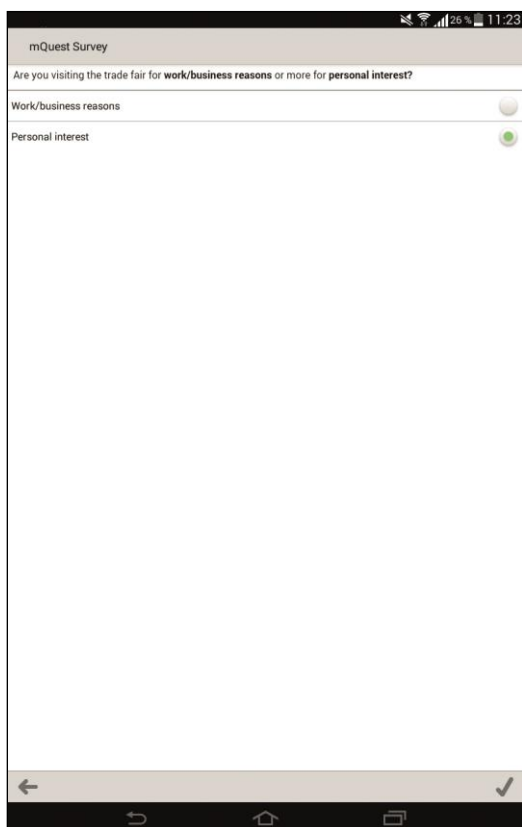
3. In case you have reviewed a data set, tick the box behind the respective data set. If you want to see more details of a data set, tap the respective data set.

An overview of the data set is displayed. Edited questions are tagged.



4. Tap the question you would like to edit.

The question and the provided answer possibilities will be displayed.



5. Edit the question and confirm your changes by tapping **Edit**.
A warning message will be displayed.
6. Confirm the warning message and repeat steps 4 and 5 for all desired questions.
7. Mark all data sets as reviewed in the upper area of the data set overview or in the overview of recorded data sets.
8. Use the back button of your mobile device to navigate to the overview of recorded data sets, the project menu or the main menu.
The data sets have been reviewed and can now be synchronized.

4 mQuest traffic

mQuest traffic is used for traffic surveys. It is an extended version of mQuest with some additional features. The general functions, operation and navigation are nearly identical to the standard version of mQuest Client. Therefore, this manual applies to both versions equally. The differences and additional features of mQuest traffic will be explained in this chapter.

4.1 Activate mQuest traffic

All functions of mQuest traffic are already integrated in mQuest Client. No additional client or download is necessary. The additional features of mQuest traffic are available as soon as an mQuest traffic project has been loaded and started on the device.



The additional features of mQuest traffic are only available in mQuest traffic projects. These can be created with the mQuest traffic QuestEditor.

4.2 Components of mQuest traffic


mQuest traffic consists of ride start-, questioning- and count module. When starting a questionnaire, the ride start module will always be displayed first.

In the ride start module you choose ridenumber and count categories.

With the questioning module you conduct passenger surveys. The operation and function of the questioning module is nearly identical to normal mQuest projects.

With the count module you count the number of passengers who get on or off the vehicle as well as the entire manning of the vehicle for each stop.

4.3 Start traffic Survey

1. Download a project as described in chapter 2.1.
2. Select the project in the main screen and tap **Start**.
The project will be loaded.
3. Enter the **ridenumber** and confirm with **Done**.
4. If there is not yet synchronized count data on the device, select how you want to proceed.
5. Select the **count category** which you would like to use and confirm with the **Next**-arrow.
The survey will be started.
6. Tap on the **Count symbol**  to start counting or **Next** to start a passenger interview.

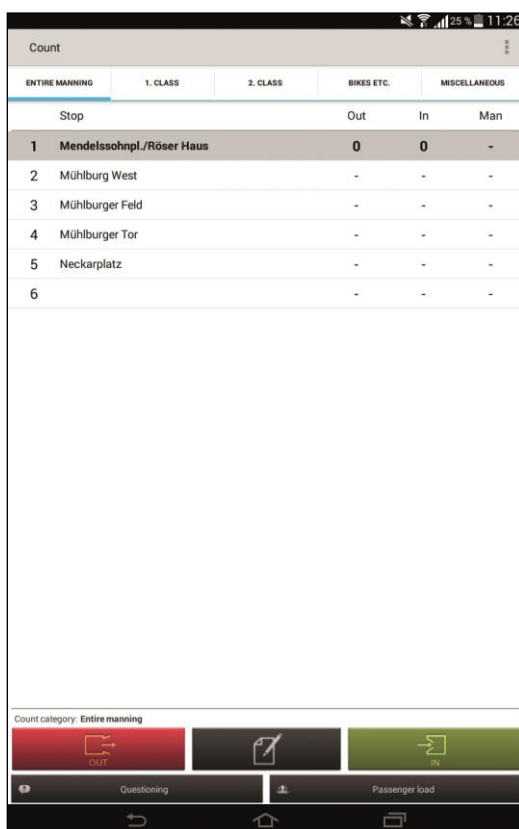


If count data which has not been synchronized yet is available for a ride, you have three possibilities how to proceed with this data:

- **Edit/continue existing count data**
The available data set will be used
- **Delete existing count data**
The available data set will be deleted and a new count will be started
- **Leave count data unchanged and re-collect**
A new data set will be created for this count

4.4 Count the number of passengers

The count module is used in order to count the number of passengers.




The count module consists of three areas: In the upper area, tabs for the count categories are shown if more than one count category has been selected.

In the central area, there is a list of stops with the number of passengers who have entered or left the vehicle as well as the entire manning which you can enter manually.

In the lower area, there are the buttons used for counting the passengers. Additionally there are buttons to enter the entire manning and to switch to passenger interviews.

After a ride has been selected, the questioning module will be displayed first.

1. In order to count passengers, tap the button **Count** . This button is available in the start ride module and during questionings.
The count module will be displayed.
2. If necessary, tap the tab with the desired **count category**.
3. Tap the name of the stop for which you would like to gather passenger numbers.
4. Tap the **red button** once for every passenger **getting off**.
5. Tap the **green button** for every passenger **getting on** the vehicle.
The number of passengers getting on or off will be displayed for the selected stop.
6. Tap the button **Passenger load** and enter the entire manning of the vehicle with the help of the virtual keyboard.
7. Repeat steps 2 to 6 for every stop.
With the help of the black button in the center you can also edit the passenger numbers. In this case you have additionally the possibility to enter the number directly or to increase or decrease the number of passengers with the + and - buttons.
With the button **Questioning** you switch to the questioning module and can then conduct passenger surveys.

4.5 Survey passengers

For passenger surveys the questioning module is used. These surveys are nearly identical to normal mQuest surveys and are conducted in the same way. You will find more information on conducting surveys in chapter 3.


→ To start a survey, tap **Questioning** in the count module or **Start** in the project details.



With the button **Count** you can switch to the count module at any time. The survey will be paused for this time. As soon as you switch back to the questioning module the survey will continue where it had been paused.

4.5.1 Copy results

After you conducted a survey, you have the possibility to copy the results of this survey for the next one. This is useful in cases where passengers take the same route or for passengers traveling in groups. You can either directly copy the results or initialize the input fields of the questionnaire with the last results. If you copy the results, they will be saved immediately with no further editing. If you initialize the fields with the results, you will conduct the survey as usual but the answers from the previous survey are already preset and can be edited if necessary.

1. Tap  in the survey screen.
2. Choose if you want to copy or initialize results and confirm with **Ok**.
Results will be saved directly or the next survey will be started with preset results.

4.5.2 Question type entered/ exit at stopover

With the question type entered/ exit at stopover, you can select the stopover at which the respondent entered or exited the vehicle. A full-text search supports you in choosing the right stopover.

1. Start entering the name of a stopover.
If there are matching stopover names they will be displayed.
2. Select one of the stopovers or enter the complete name of the stopover manually.

4.5.3 Restart interview

Surveys in mQuest traffic cannot be paused and continued at a later time. It is also not possible to cancel surveys directly.

But it is possible to restart a survey, which cancels the current survey.

- In order to restart a survey, press **Menu button > Restart interview**.
A warning message will be displayed. If you confirm with yes the survey is canceled and a new one is started.

4.6 Finish ride

Once the vehicle has reached its destination and you completed all results, you can finish the ride.

1. Tap **Menu button > Finish ride**.
A warning message will be displayed.
2. Confirm the message with **Yes**.
The main screen or a final survey will be displayed.

4.7 Further procedure

It is possible at a traffic survey that a final survey is defined. Usually it serves to ensure the quality of the collected results.

- Complete the final survey.

Once all data are complete you still need to synchronize them with the QuestServer. You will find information on synchronizing data in chapter 2.5.

5 Preferences

5.1 Global variables

On the mQuest Client, you can assign any value to the Global variables which were defined in the questionnaire. General information which is valid for several surveys is entered one time only before the first survey and is then taken over automatically in every other survey, as long as you have assigned the global variables a new value.



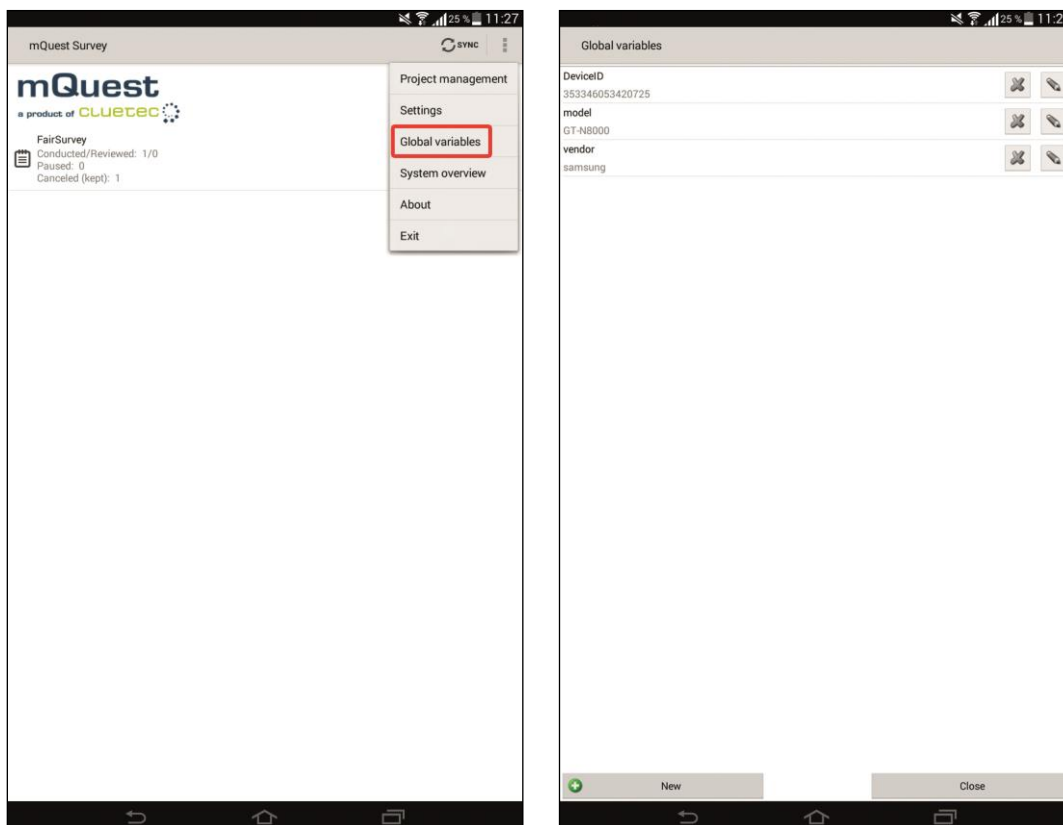
Global variables are case sensitive. Therefore, pay particular attention to upper and lower case letters.





If you do not define a Global variable in the mQuest client even though it is applied in the questionnaire, a warning message will appear. You can indeed conduct the survey without defining the Global variable; but then no value can be assigned to the Global variable in the data set.

→ Tap on **Menu > Global variables**.

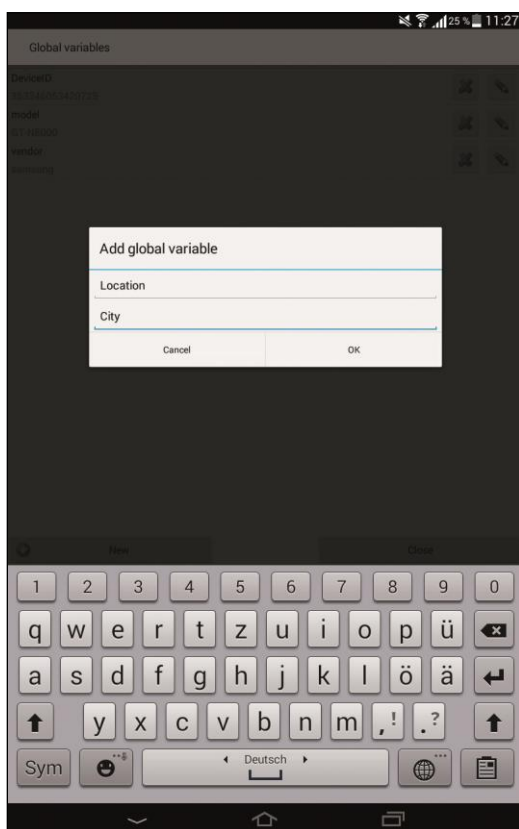
The window for Global variables will open.




- **New**
Allows adding a Global variable and assigning a value
- **Change** 
Allows changing the selected Global variable if it is changeable.
- **Delete** 
Deletes the selected Global variable.
- **Close**
Closes the menu, changes will be kept.

5.1.1 Add Global variable

1. Tap on **New** in the menu for Global variables and enter name and value of the Global variable.



- **Name**
Here you enter the name of the Global variable. The name must correspond to the name which was defined in the questionnaire.

 If a Global variable with the same name already exists, it will be overwritten.

- **Value**
Here you enter the value which you would like to assign to the Global variable for the upcoming surveys.


2. Tap **Ok**.

You have now assigned the Global variable a value. As long as you do not change the Global variable, this value will automatically be stored for all new surveys from questionnaires for which this Global variable was defined.



A Global variable which you define in the mQuest client is independent of questionnaires. You can also use a Global variable for several projects.

5.1.2 Change Global variable

1. Tap on **Change** () in the menu for Global variables and enter the changed value of the Global variable.
2. Tap on **Ok**.

You have now assigned the Global variable a new value which can immediately be used for all new surveys.

5.1.3 Delete Global variable

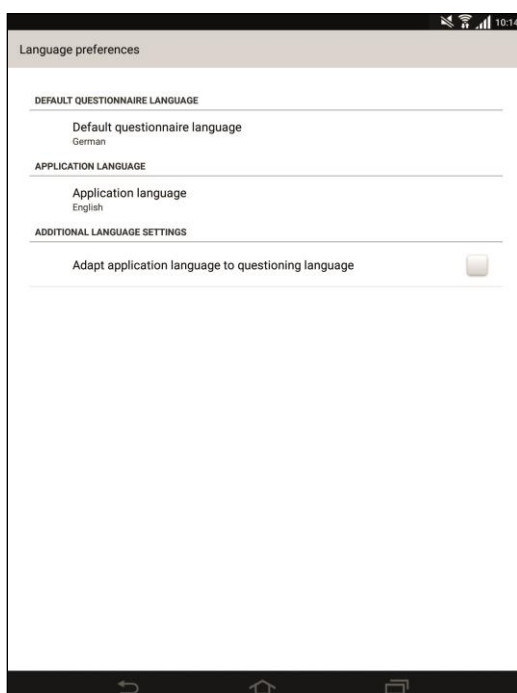
- Tap on **Delete** in the menu for Global variables.

The selected Global variable will be deleted.

5.2 Languages

There are three language settings for the mQuest Client:

- **Default questionnaire language** for the presentation of the project questionnaire
- **Application language** for the screen texts of the mQuest Client
- **Adapt application language to questioning language**



CHANGING THE PROJECT LANGUAGE:


1. In the main screen, tap on **Menu > Settings > Language preferences**.
2. Under Default questionnaire language or Application language, tap on the desired language.

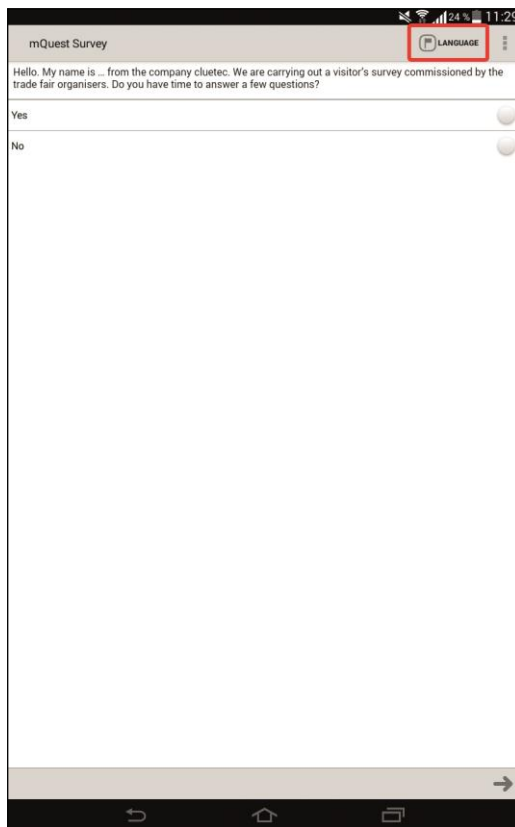


If you select a questionnaire language which is not available in the questionnaire it will be displayed in the language the project was created in.



If the questionnaire contains several languages, you always have the possibility to change the questionnaire language.

1. Tap on  and select the desired language.
2. Confirm the choice with **OK**.



If you change the questionnaire language, then the application language can be changed automatically as well. Select the option **Adapt application language to questioning language** to change the application language in accordance with the project language.

5.3 Change font size

mQuest Client allows you to change the font size so you can adapt it to your needs.

1. Tap **Menu > Settings > Font size**.
2. Select the desired font size. The default size in Android is 16.
3. Confirm with **Ok**.

Changes will be applied immediately.

5.4 Preferences

With mQuest Client certain preferences must be configured, so that you have access to the QuestServer in order to, for example, load the projects and transfer the data sets.



You will receive the preferences from different sources, depending on where the QuestServer is hosted.

The following screenshot shows an example how settings may look like.

At the first start of mQuest Client you will be asked to enter initial settings. You can make changes to these settings at any time. When you connect your device via USB, you have to select the appropriate menu option with **USB-Connection**. Connection via USB is not available for all mobile devices. You will find a list of tested devices at **my.mQuest.eu**.

In the case that the QuestServer is hosted on your own premises, but not on your own PC, you will receive the information from your system administrator.

If you are using a QuestServer hosted by cluetec, you will receive the information from cluetec.

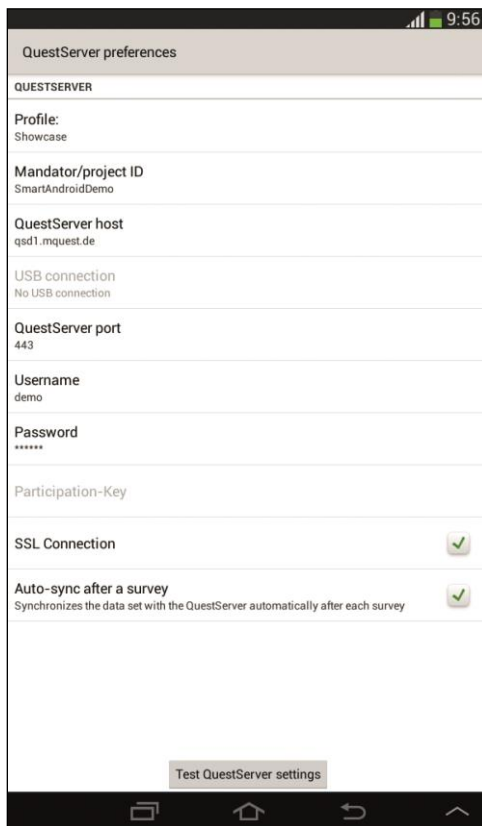


When accessing the QuestServer with mQuest Client, a connection via WiFi is always tried first. Should access not be possible, then a connection, if available, via GPRS/UMTS will be established.

CONFIGURING PREFERENCES:

1. Tap **Menu > Settings > QuestServer preferences**

The following window will open:



2. Carry out the preferences and tap on the **Back Button** in order to return to the main screen.

You have the following options:

- **Profile**

With the QuestServer Profiles you can use various default settings.

Manual

Here you can make individual settings. If you select one of the other profiles and change one of the settings afterwards, the profile will automatically switch to Manual.

Socket Connection

You have to select this profile when you want to connect to a QuestServer with the version 9 or lower.

my.mQuest Demo-Server

The demo server of the my.mQuest Portal will be used.



On my.mQuest you can test out mQuest without obligation. You can access the portal via **my.mQuest.eu**.

Showcase

The Showcase server will be used. This server is hosted by cluetec GmbH and provides two demo projects.

Participation key

The server for which the participation key has been generated is used.

Default QuestServer settings

Uses the server on the PC to which the device is connected.

- **Mandator/project ID**
Mandator description or specific ID of the project
- **QuestServer host**
IP address or name of the PC on which of the QuestServer runs
- **USB-Connection**
With this option you can synchronize the data with the QuestServer via an USB connection between the mobile device and your PC.

USB via tethering / Internet sharing
With this option you can connect the mQuest Client to the QuestServer host directly via USB. This setting is not supported by all devices.

USB via mQuest sync tool
With this setting you use the mQuest Sync-Tool for the synchronization via USB. More information about the mQuest Sync-Tool can be found in the my.mQuest portal. You find the portal under **my.mQuest.de**.
- **QuestServer port**
Port under which the QuestServer runs (Default: 8081 for Android, 80 for iOS)
- **QuestServer username and password**
- **SSL Connection**
SSL/TLS encoding for a safe data transfer between QuestServer and mQuest Client.
→ Activate this option to activate the SSL/TLS encoding and change the **QuestServer Port** to **443**.
- **Automatic synchronization after a survey**
The data sets will be synchronized automatically with the configured QuestServer after every survey.
- **Test QuestServer-settings**
This function tests the connection to the QuestServer.

5.5 Use external scanner-app

As an alternative to the integrated barcode and QR code scanner you can also use the external app Barcode Scanner by ZXing in order to scan barcodes and QR codes.

1. Install the app Barcode Scanner by ZXing on your mobile device.
2. Tap **Menu > Settings > Use external scanner-app**.

The checkbox will be ticked and the menu will close. The external app will now be used for scanning barcodes and QR codes.



Please refer to the app's documentation on how to operate the app.



The use of the external scanner-app can also be enabled when configuring the mQuest Client via QR code by using the configuration input **use_extern_scanner_app=**