
# *Android Apps from aitronic*

**Operating Manual**

Edition 04.12.2017

Manual

# 1. devin

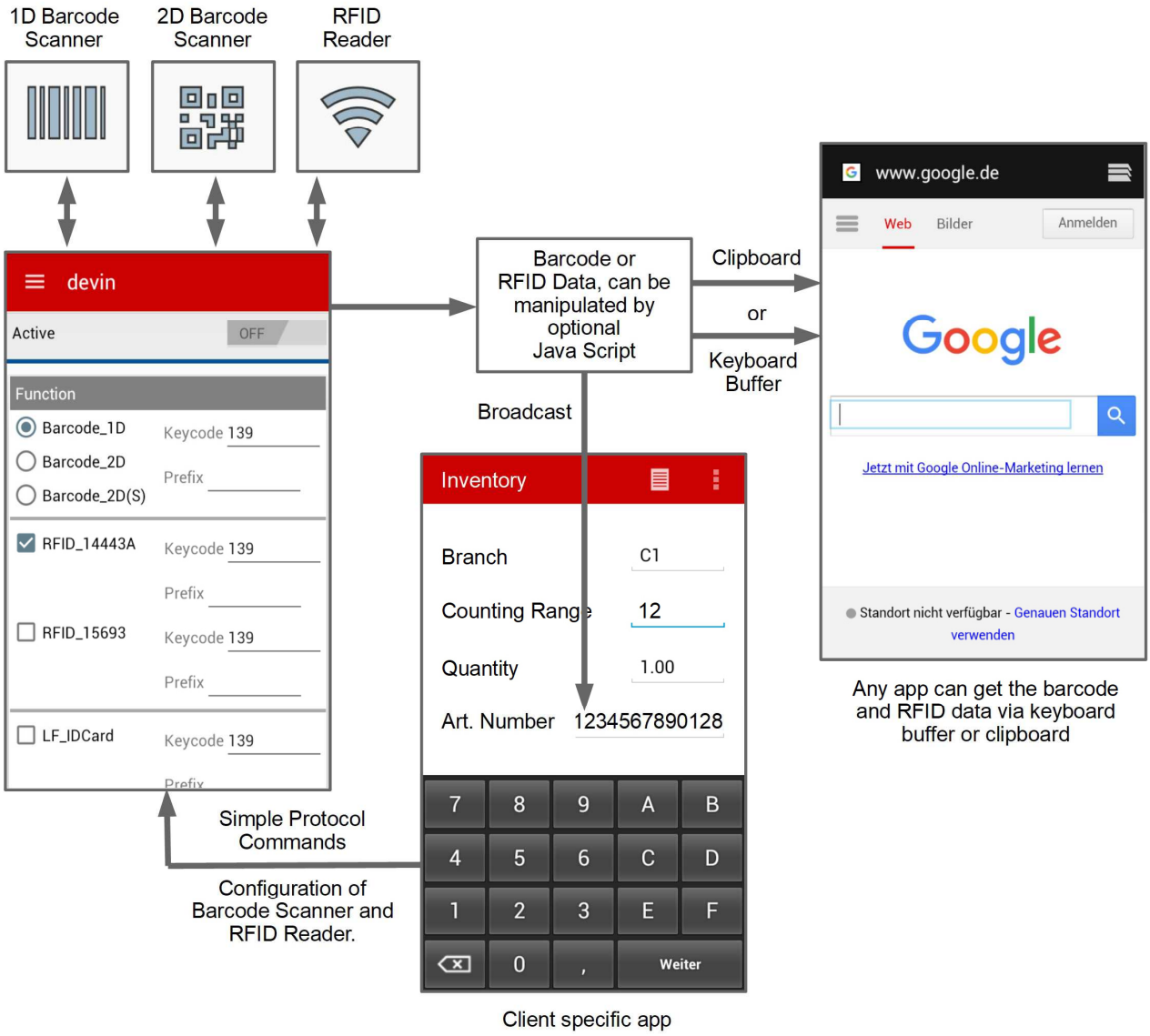
## Kinds of Application

The Android app **devin** together with Android app **aiBrowser** enables the data scanned by barcode or RFID readers to be transferred to the input fields of apps and web-based applications in an elegant and simple way. The following overview lists the options and the settings to be made in devin.

| Type of application | Possibilities of barcode/RFID data transfer by appropriate configuration of devin |
|---|---|
| **Existing app**<br>i.e. the source code is not available and therefore there is no way to change the app. | Data transfer must be done in the **keyboard buffer**. **devin** must be configured manually. Further settings such as, e.g. the barcode types to be accepted must be set manually in devin. |
| **Self developed app**<br>i.e. the source code is available and therefore the possibility exists to change the app. | The data can be transferred in the **keyboard buffer** (no additional programming required) or via **broadcast**. Broadcast provides e.g. The ability to manipulate or intercept the received data before it is inserted into an input field. **devin** can be configured by the app. For example, The barcode types to be accepted can be set. |
| **Web-based application**<br>is executed in a browser by calling a URL. | The **aiBrowser** from aitronic was developed for the barcode/RFID data transfer in web-based applications. Data transfers must be done by **broadcast**. **devin** must be manually configured for this. Further settings such as, e.g. the barcode types to be accepted must be set manually in devin. |
| **Windows application on a PC** | The scanned data can be transmitted by **devin** via Wifi and written directly to the cursor position on the PC using the **devinHID** Windows Keyboard Server. |

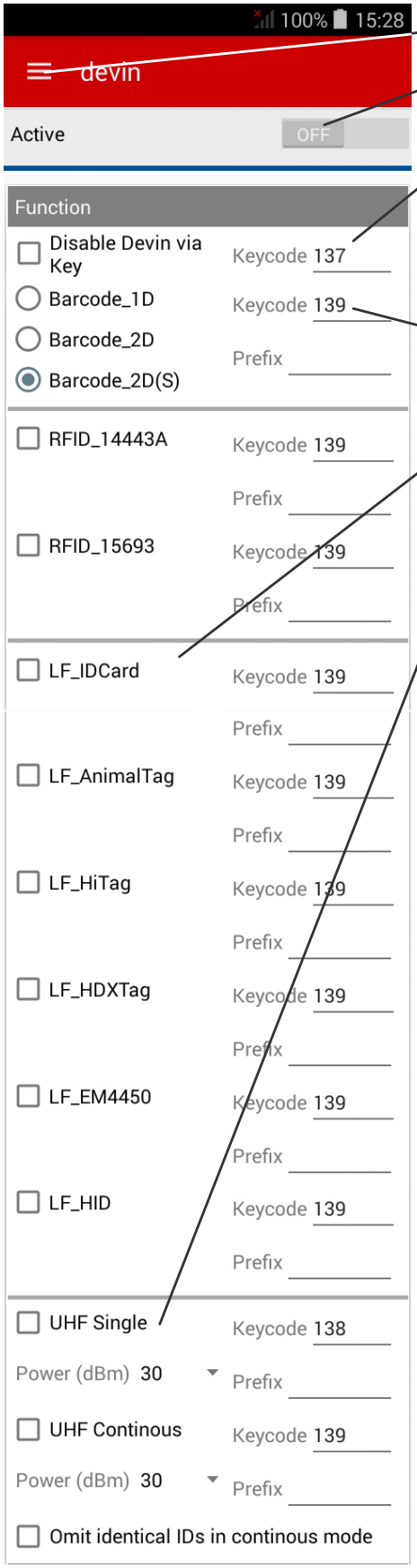
# Functionality

devin devin allows the transfer of the scanned barcode scanner or RFID reader data to the keyboard buffer or the clipboard. Alternatively, a broadcast message is possible. Thus, the bar code scanner and RFID reader can serve as a data source for each app. Together with the devinHID Windows application, devin can also write the scanned data directly into the input fields of a Windows application.




The next pages contain **devin's** user interface description. Only the options for the available hardware are shown. For example, when there is **no** RFID module **no** RFID options are displayed.

# Configuration




Menu (refer to next page)

After adjustments made devin has to be activated here. With devin activated no setting can be changed.

Function button that can be used to disable devin to use the camera. As soon as one of the devin-defined scan buttons is pressed, the activation of devin is activated again.

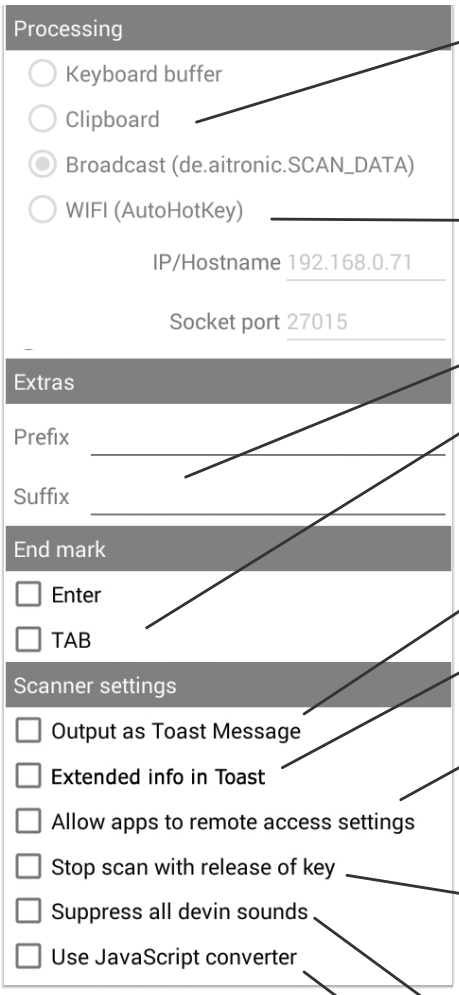
Barcode scanner or RFID reader can be activated. If bar code scanner **and** RFID reader are used, **different** key codes have to be used.

Each input device can be activated separately. To each input device a key code (this can alternatively be entered on the numeric input directly with the desired key) and a prefix can be assigned.

**UHF Settings**

- UHF Single: UHF reader is switched off in each case, after reading a tag.
- UHF Continous: UHF reader remains turned on for reading multiple tags as the button is pressed.
- Omit identical IDs in continous mode: In continuous mode, the multiple reading of identical tags is prevented.

With the drop-down lists "Power", the respective transmit power can be adjusted.




If bar codes or RFID tags are transferred from conventional apps, the keyboard buffer is to be selected. That means that barcodes and transponder tag IDs appear as keyboard input for the app.

The scanned data can be transmitted via Wifi and written directly to the cursor position on the PC using the Windows keyboard server **devinHID**.

These prefix and suffix apply to all input devices.

The passed string can be completed with ENTER or TAB. **Note:** Some Web browsers convert the TAB to spaces. The aiBrowser, on the other hand, goes to the next focusable element.

Scanned data can be output as a message.

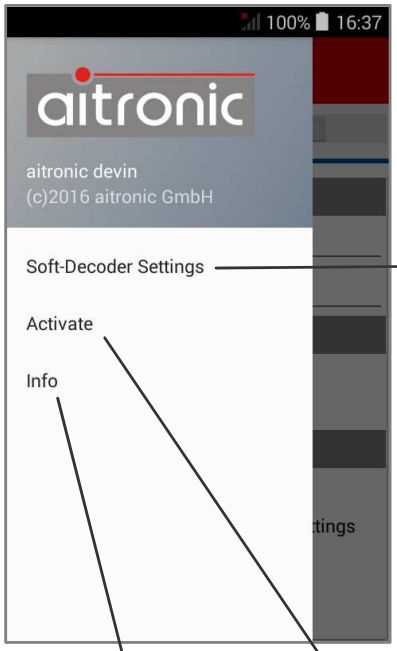
Information on the read barcode / RFID type may be issued with in the message.

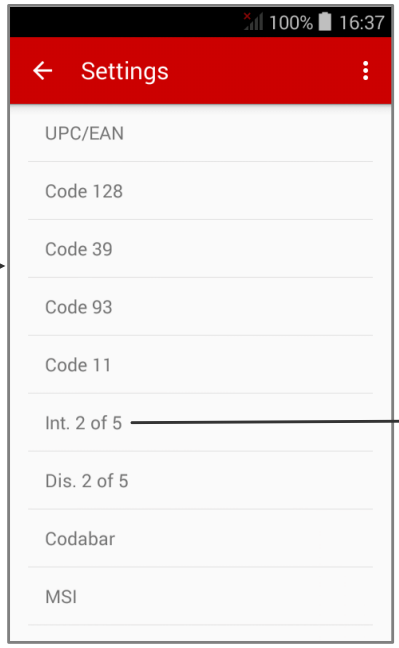
This allows customer-specific apps to change the settings of devin (refer to **devin Programming Manual**).

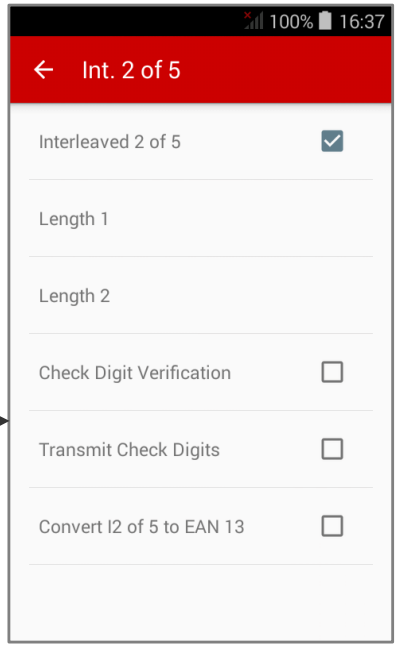
If no bar code read and this option is enabled, the scanner turns off when you release the button, if the other switches off after a timeout.

devin sound output can be suppressed.

Barcode and RFID data can be manipulated via JavaScript (refer to **devin Programming Manual**).

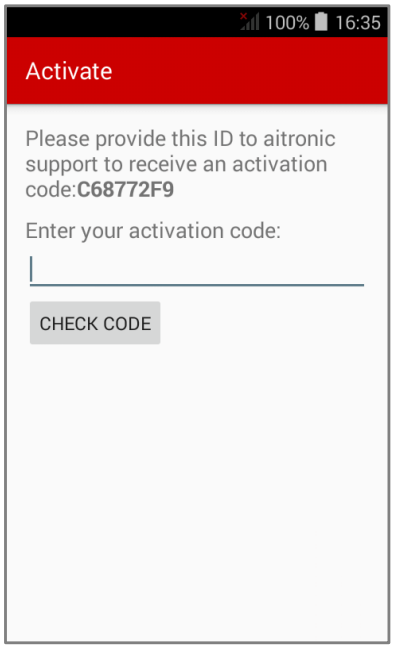



Menu

For the barcode reader type "Barcode_2D (S)" for each type of barcode various parameters can be set. For example it is very important for Code 2 of 5 int. to specify a length fixing, if no check digit is used.


Before devin can be used, activation has to be performed.

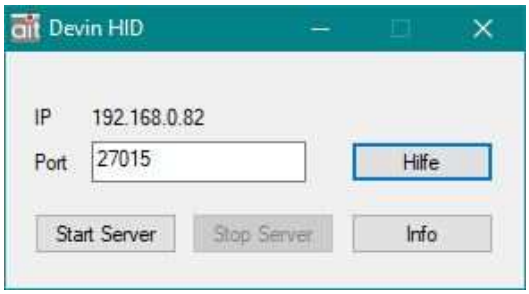
With this button updates can be searched for.

This button can be used to reset the setting to the default values.

# devinHID

**devinHID** can be used to send data from an aitronic LogiScan device via WLAN directly to the PC. **devinHID** writes the received data to the current position of the cursor or the currently focused element. So you can use data, e.g. Write directly into an Excel spreadsheet or similar.

The Android devin app on the aitronic LogiScan devices and the Windows application **devinHID** work together via LAN / WLAN, so both devices must be able to reach each other via the network. When starting **devinHID** on the Windows PC, you can define a port number where **devinHID** should listen to data.




In the Android app **devin**, you must then configure the connection to **devinHID**. To do this, set the value "Processing" to "WIFI" and enter both the IP or host name of the PC on the **devinHID**, as well as the port on which **devinHID** is listening.

If a connection is not possible, you must adjust the firewall settings under Windows accordingly.

# 2. aiBrowser

The Android app **aiBrowser** together with the Android app **devin** enables the data scanned by barcode or RFID readers to be transferred to the input fields of apps and web-based applications in an elegant and simple way. The following overview lists the options and the settings to be made in devin.

| Type of application | Possibilities of barcode/RFID data transfer by appropriate configuration of devin |
|---|---|
| **Existing app**<br>i.e. the source code is not available and therefore there is no way to change the app. | Data transfer must be done in the **keyboard buffer**. **devin** must be configured manually. Further settings such as, e.g. the barcode types to be accepted must be set manually in devin. |
| **Self developed app**<br>i.e. the source code is available and therefore the possibility exists to change the app. | The data can be transferred in the **keyboard buffer** (no additional programming required) or via **broadcast**. Broadcast provides e.g. The ability to manipulate or intercept the received data before it is inserted into an input field. **devin** can be configured by the app. For example, The barcode types to be accepted can be set. |
| **Web-based application**<br>is executed in a browser by calling a URL. | The **aiBrowser** from aitronic was developed for the barcode/RFID data transfer in web-based applications. Data transfers must be done by **broadcast**. **devin** must be manually configured for this. Further settings such as, e.g. the barcode types to be accepted must be set manually in devin. |

# Start and Menu Bar

After launching the **aiBrowser**, the web page set under the default URL is displayed. By default, the default URL is `about: blank`, i.e. As long as no other URL is set, a white page is displayed.


After tapping the hardware button menu (for Android 5, press and hold), the menu bar will appear

# Settings

## General

Only available after entering Password. The default Password is `ai1500`.


Default URL that is called when aiBrowser is started.

Here, the administrator can set how scan data from devin is passed to the web page.

Admin password to access these settings. If the admin password is left blank, the default password `ai1500` is active. If the password is forgotten, a master password that is valid only for the day can be requested via the aitronic support. After entering the master passwords, the password is reset to `ai1500`.

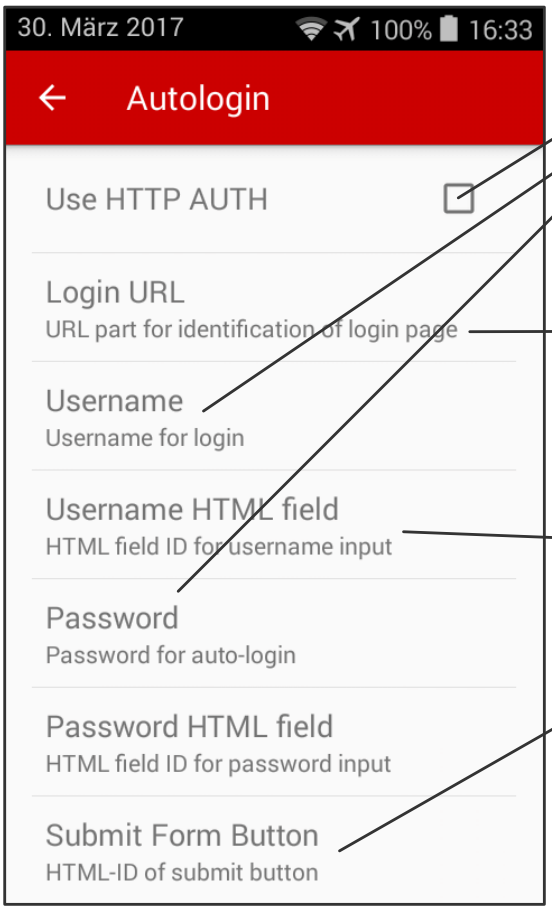
Checks if a new version of the app is available on the server.

Write a config file to `/sdcard/aitronic/aiBrowser/config.ini` for easy distribution of configurations to multiple devices.

Reads the config file at `/sdcard/aitronic/aiBrowser/config.ini`

Ends the app to access the Android system..

# Autologin




If this checkbox is activated, HTTP authentification is used for automatic login. The Username and Password field must be filled. If the checkbox is deactivated, it is possible to fill defined form fields automatically.

Here, a part of the login URL must be entered so that the aiBrowser can identify the login page on which the login data is to be entered. A short portion of the URL is sufficient, e.g. "SignIn.aspx" or "login.php".

Here the HTML-IDs of the fields for the user name and the password can be entered.

You can specify the HTML ID of the field on which JavaScript-Click is to be executed after completing the Username and Password fields. However, this works only if both Username and Password are stored.

# Info

About the copyright and version of the app.

# Transfer of the Scan Data to the Browser

In order for the scan data from devin to be transferred to the aiBrowser, the devin settings in the "Processing" section must be set to "Broadcast de.aitronic.SCAN_DATA".

## Method 1: JavaScript Function Call

Here, after a successful scan, the data are passed to a JavaScript function on the web page.

This function must be implemented by the customer on the website. The call is:

```
Aitronic.scanDataReceived('barcode')
```

Example:

```
var Aitronic = {
      scanDataReceived: function(dat){
      document.getElementById("idcode").value=dat;
      return true;
      }
};
```

## Method 2: KeyUp/KeyDown Events

Keyboard input is generated from the scanned data. A minimum of KeyDown and a KeyUp event is generated for each character in the scanned code.

Example:

The character 'a' generates the events
- `KeyDown KeyCode: 65`
- `KeyUp KeyCode: 65`

The character 'A' generates the events
- `KeyDown KeyCode: 16` (Up / Shift key)
- `KeyDown KeyCode: 65`
- `KeyUp KeyCode: 65`
- `KeyUp KeyCode: 16`

since uppercase letters are generated using the Shift key.

These events can then be intercepted by JavaScript event listeners.

# Playing Sounds with JavaScript

Sounds can be stored in the format wav, ogg or mp3 on the SD card of the device. For the aiBrowser to process these, they must be stored in folder `/aitronic/aiBrowser/sounds`. After changing the sound files, the aiBrowser must be restarted to read the new files. The files can then be played over the provided interface.

Example:

```
<html>
<body>
<button
onclick="javascript:AiBrowser.playSound('demo_error.ogg')">
Play Sound</button>
</body>
</html>
```

As a parameter, the file name of the sound file to be played must always be passed to the function `AiBrowser.playSound ()`.

# Disable / enable devin with JavaScript

For example, You must disable devin. This can be done out of JavaScript via the function

```
AiBrowser.deactivateDevin()
```

devin is then temporarily disabled and the use of the camera is possible. When you press the scan button, devin is reactivated and starts scanning after a short initialization time. This reactivation can also be done using JavaScript with the function

```
Aibrowser.activateDevin()
```

# 3. ScannerDemo

The app ScannerDemo is used to demonstrate the integrated barcode scanner or the RFID reader. ScannerDemo receives the scan data from the app devin and assumes that it has the following settings:

- Aktive: ON
- Processing: Broadcast de.aitronic.SCAN_DATA
- Scanner Settings: Allow apps to remote access settings


Selection of barcode scanner or RFID reader.

Barcodes of type Code 2/5 interleaved can be allowed.

Switch on the scanner or RFID module.

Switch off the scanner or RFID module.

Scanned codes are output with the preceding type.

Scan barcode or RFID tag.

# 4. aiInventur

The aitronic App **aiInventur** is used for demonstrating barcode scanners and/or RFID readers and can be used for simple inventories.

In order to use the app with barcode scanner and/or RFID reader, the app devin must be installed and enabled.


If devin can not be installed with the app max. 20 articles.

# Start Screen


Selection of screen **Menu**

Selection of screen **Article Master Data**

Selection of screen **Data Collection**

Selection of screen **List**

Selection of screen **Synchronization**

# Menu


Selection of screen **Settings**

Selection of screen **Info**

Displaying the Licence Agreement

# Info


Displays the app version, article and serial number of the device and the IMEI

Verifiy whether a new version of the app is available to install. This requires an Internet connection.

# Settings



If this option is selected, the quantity is scaled up when scanning the same item numbers.

If this option is selected, the data is synchronized with FTP instead of with MTP. The appropriate FTP settings must be made for this.

# Article Master Data

Optionally, the loading of article master data can be done with the Windows software MTPWin. When product master data is loaded, the article description is displayed for each item number entered.


After synchronizing with MTPWin, the article master file can be imported. If there is no file, a corresponding error message is displayed.

After import, the article master data is displayed.

After query / confirmation the article master data will be deleted.

Items can be added manually.


# Data Collection


Selection of screen **List**.

The item number can be scanned or entered manually.

The default quantity "1" can be incremented, decremented, or manually changed. When scanning the next barcode, the current record is automatically saved.

Manually store the current record.

# Listing

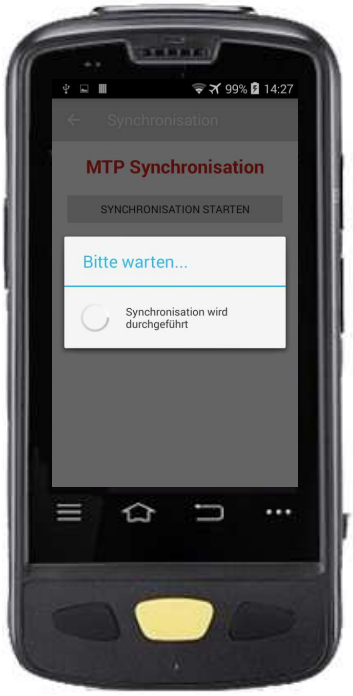

After confirming a query, the entire recorded data can be deleted.

After tapping a data record, it can be edited or deleted.

# Synchronization

For synchronization,

- the Windows software MTPWin must be started on the computer,
- the device must be connected to the USB port of the computer with Snap On or Cradle,
- MTPWin has to be configured accordingly (refer to MTPWin Operating Manual),



After tapping the button "START SYNCHRONIZATION", synchronization is performed. After the synchronization has been completed, the system asks whether the data on the device is to be deleted.