LID710 Scanner

Guide for Users

trovan®

Contents

User Guide V1.0

Introduction

LID710 Scanner is an application which captures reads of Trovan Unique RFID tags from a LID710 mobile device over Bluetooth and sends them to a web server, another application, or a text field. It runs in the background, and is configurable to allow successful reads to be sent to any or all of the possible outputs.

This means that users can continue to operate a LID710 device as normal, and need only to scan using the device to record a read - with no need to open a dedicated application. LID710 Scanner can also be used as a simple means of integrating RFID reading into other applications by using the app.

Important notices

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Installation

Upon installation from the device's application store, the 'LID710 Scanner' application icon will appear in the list of installed apps. This will launch the application and enter the administration and setup screen. Users will not need to access this configuration screen and so the icon may be hidden by administrators to avoid inadvertent user alteration of configuration settings.

Usage

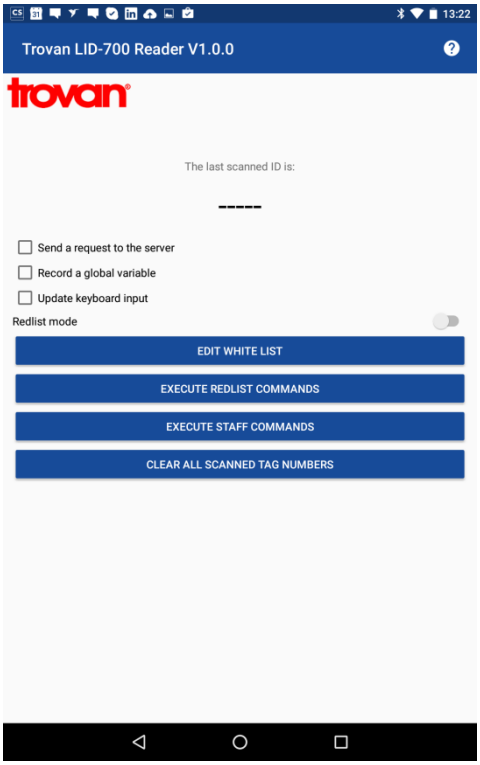
Once the application is installed on the device, it will run in the background and allow the device to be used as normal. The device must be powered on and unlocked in order to scan an RFID sensor.

A successful read will be indicated by a small pop-up notification on the device screen and an audible notification. The captured data will be used according to the configuration of the app.

Configuration

This screen displays the main system settings and can also be used to test the LID710 reader. While on this tab, the URN of a successful read will be displayed at the top of the screen.

Activating the check boxes on this screen switch on or off the various outputs of the data captured by the app.

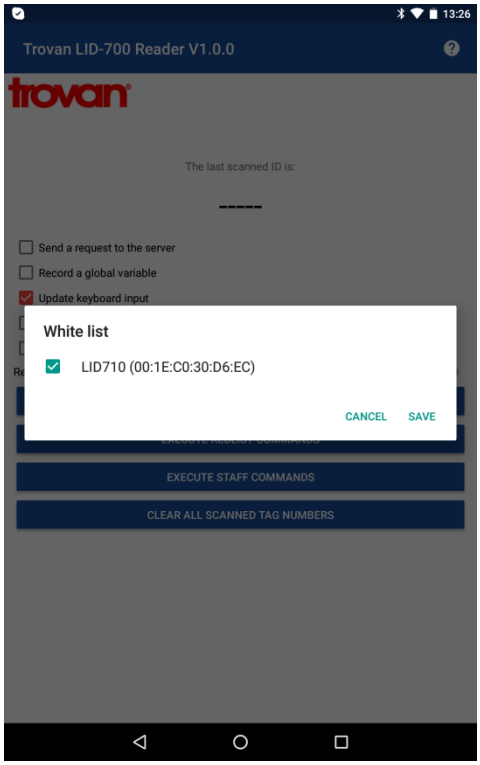


Connecting a scanner via Bluetooth

When the application is launched and visible on the screen, switch on your LID710 scanner device. The device will display ‘Bluetooth Sync Ready’ when it has successfully connected to the app. Before using a device for the first time it must be added to the app’s ‘Whitelist’.

Editing the Whitelist

Tapping ‘Edit Whitelist’ will open the whitelist editing screen. This will display a list of all LID710 scanners found by the app, and also all previously whitelisted scanners. A scanner must be ‘paired’ in this screen to be used with the app.



Tapping the check box beside each scanner will connect or disconnect it from the app. Once done, click ‘Save’ to store the new values. or ‘Cancel’ to restore the previous settings.

Operation

LID710 Scanner supports the usage of the data captured in three ways - sending a request to a server, capturing a global variable for use by another application, or directly using the scan into a text field, via the LID710 Scanner keyboard plugin which is installed along with the app.

These functions may be used separately, or combined. To activate or deactivate each function, tap the check box to its left.

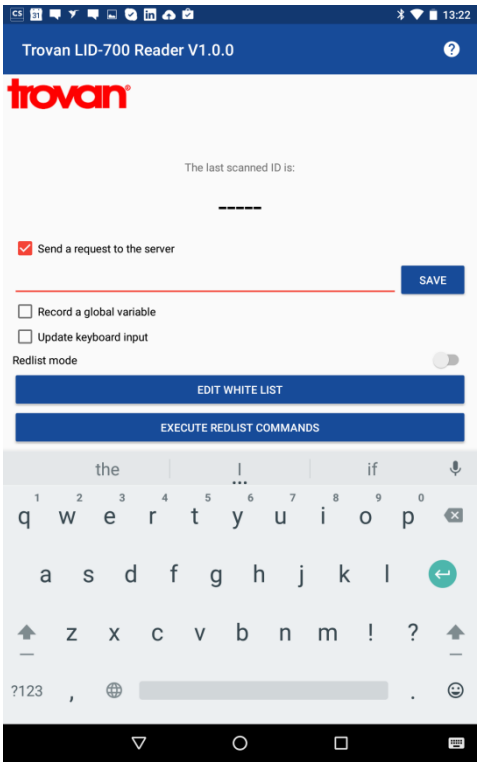
Accessing reads through an API

Upon tapping 'Send a request to the server', a text field will open up. The relevant server address (e.g. *http://www.MyDomain.com/MyApplication/api.php*) must be entered. To amend the existing setting tap 'Change' and then 'Save' once the changes have been made.

The data from each scan event will be output in the following format:

`*user api url*`?TagNumber=*XXXXXXXX*&TimeStamp=*yyyy-mm-dd hh:mm:ss*

Where **user api url** is the server specified in the configuration; *xxxxxx* is the NFC tag's URN and *yyyy-mm-dd hh:mm:ss* is the date and time of the successful read.



Accessing reads from another app

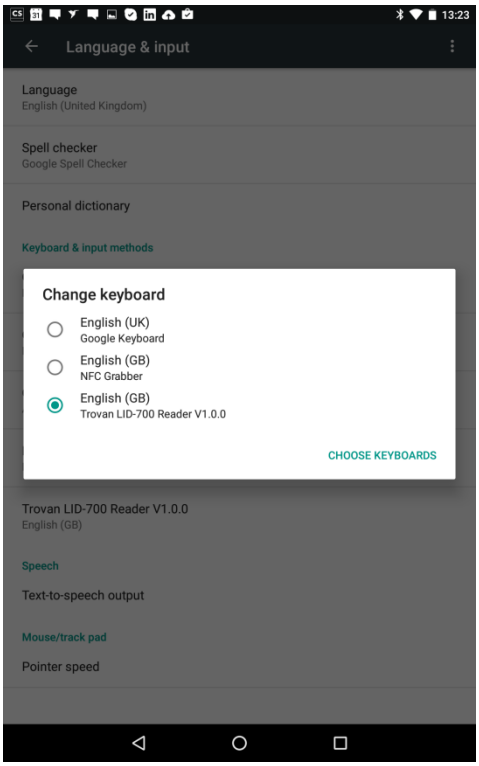
When this check box is selected, each scan will be recorded as a global variable which may be accessed from any other application. That application must be set up to periodically check for the presence of this variable, as only the last successful scan is stored.

To access the recorded global variable from another application, use the following code in the target application:

```
    public final static String ACTION_GATT_NEW_ID =
"com.trovan.bluetooth.NEW_ID";
    public final static String ACTION_GATT_EXTRA_DATA = "extra_data";

    private BroadcastReceiver mReceiver = new BroadcastReceiver() {
           @Override
           public void onReceive(Context context, Intent intent) {
              String tag = intent.getStringExtra(ACTION_GATT_EXTRA_DATA);
              doSmth(tag);
           }
    };

    // Register receiver
    @Override
    protected void onResume() {
           super.onResume();
           registerReceiver(mReceiver, new IntentFilter(ACTION_GATT_NEW_ID));
    }

    @Override
    protected void onPause() {
           super.onPause();
           unregisterReceiver(mReceiver);
    }
```

Accessing reads via keyboard input

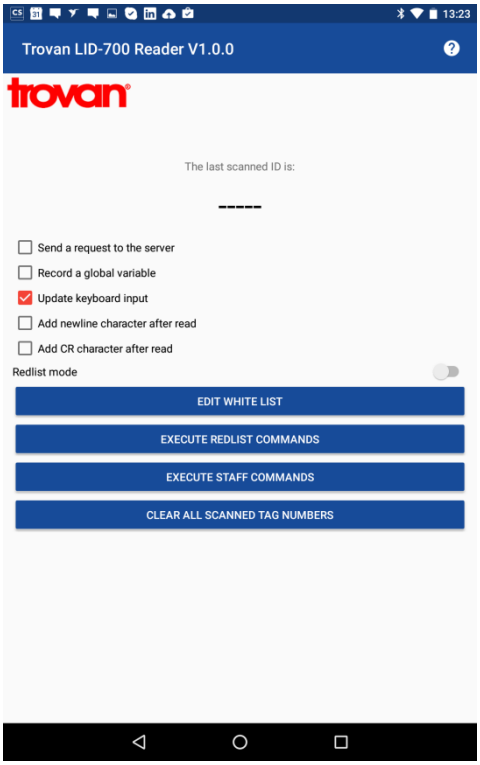
In order to use the keyboard input function, the device's keyboard must be changed to the LID710 Scanner keyboard. This can be achieved by entering the device's settings, and selecting 'Language and Input' and then changing the current system keyboard to the LID710 Scanner version.



Once this setting has been made in the device's configuration, RFID read data can be used by tapping a text entry field in any application, in order to bring up the keyboard. Scanning an RFID sensor will then result in its URN being entered at the position of the cursor.

In the LID710 Scanner settings screen it is possible to configure two further behaviours of the keyboard input setting.

Checking one of these options will add a ‘newline’ or ‘carriage return’ after each successful read. This is used if a series of scans are to be added to, for example, a text file or spreadsheet.



To activate either of these further settings, first select the ‘Update keyboard input’ option, then check the box for the desired behaviour.

Unchecking both boxes will revert to the default behaviour of placing the read at the cursor ready for the user to hit ‘enter’ on the on-screen keyboard.

Troubleshooting

RFID Reads are not being captured

- Ensure that the device has been rebooted after installation of LID710 Scanner.
- Check the scanner device is working and connected by launching the configuration screen and then scanning a tag from the Status tab - a successful read will be shown at the top of the screen.
- Make sure the device is unlocked when attempting to scan an NFC sensor - if the device is locked then reads will not be taken.

RFID reads not appearing at keyboard input prompts

- Ensure the LID710 Scanner keyboard has been installed as the device's default keyboard in the device's overall Android configuration: *Settings>Language and Input*

I cannot add reads to a text file in Google Docs

- At this time, entry into Google Docs is not supported by LID710 Scanner. Reads can be added to most other text input fields.

Support

For further support, please send full details of the hardware and software in use and any relevant entries in the system log file to enquiries@trovan.com