123RFID Mobile Application for Android

This document summarizes the 123RFID Mobile Application for Android 1.0.0.32 release:

Application Release Number	Release Date	See page
V1.0.0.32	15-June-2020	Page 1

For support, please visit www.zebra.com/support

123RFID Mobile V1.0.0.32

RELEASE DATE: 15-June-2020

The Zebra 123RFID Mobile application demonstrates the performance, functionality and versatility of the RFD8500 / MC3300R / RFD2000

Functionality:

1. Inventory – A quick snapshot of the scanned RFID tags and the ability to search a tag from the list.
2. Rapid Read – A simple screen to quickly get unique and total tag counts.
3. Locate Tag - Use the Locate Tag feature to find and locate an item by searching for a specific Tag ID. The device will provide feedback that indicates the relative distance to the tagged item.
4. Filter – Select/deselect a tag based on pattern criteria.
5. Access - manipulate standard tag memory locations.
6. Settings – Configure the reader to meet your needs.
   a. Canned profile support for varying usage scenario
   b. Configure the RFID Antenna power and link profile.
   c. Time the Start/Stop Trigger
   d. Control the audible beep volume
   e. Configure reader to report only unique tags
7. Use the Power Management settings to optimize battery usage
8. Battery level notifications
9. TAG list match mode support – import tag data using csv file named 'taglist.csv'
10. Export RFID data to a PC

Updates in release V1.0.0.32

1. Includes Android RFID SDK V2.0.1.29 which addresses the issue with app usage on non RFID Android 10 devices.
2. Fix for SPR 39298 - The gun trigger and soft trigger will not stop RFID tag read operation from RapidRead screen.
3. Changes for better Application robustness and fixes related to pre-filter scenarios.
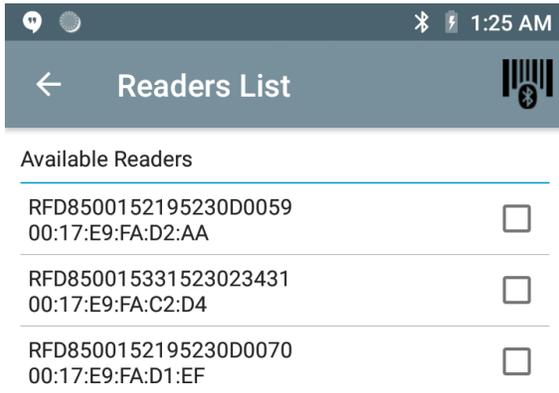
Scan and Pair of RFD8500

This section describes the Scan and Pair feature of 123RFID Mobile application with RFD8500.

To ease RFD8500 pairing process we support scanning serial number (or BT MAC) bar code and initiating Bluetooth pairing inside the application. Also, this can be used by customer/partner as reference to integrate same feature in their application.

Scan and Pair
1. Launch the 123RFID Mobile Application
2. Settings -> Readers List
3. Tap on top right icon to open pair/unpair UI

4. This will show the Scan and Pair screen with the list of already paired devices
5. User can scan the RFD8500 serial number or BT MAC bar code or enter those manually
6. Pairing process
   - Press the RFD8500 Bluetooth button to start Bluetooth discovery mode if scanning (or entering) serial number bar code.
     Note: SKIP if BTMAC barcode is used
   - Scan the RFD8500 S/N bar code (or BTMAC) barcode at the bottom of the RFD8500 antenna
   - Tap on PAIR button in application incase auto pairing does not happen.
   - Wait for blue LED flashing on RFD8500
   - Press the RFD8500 trigger to confirm the pairing process.
     Note: SKIP if RFD8500 has been configured to allow pairing w/o trigger press using 123 Scan tool
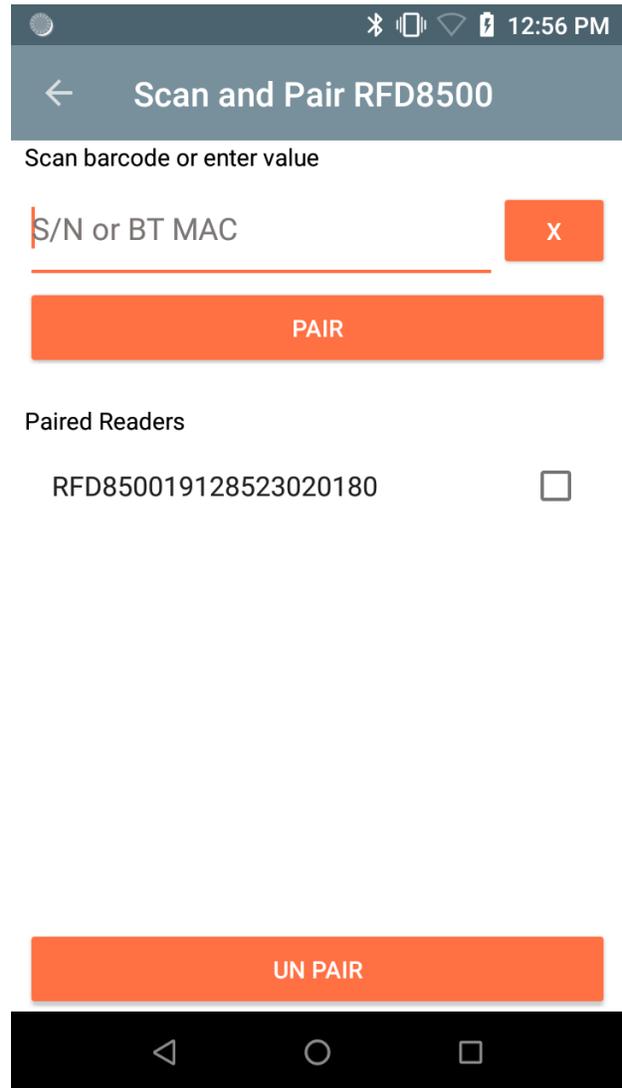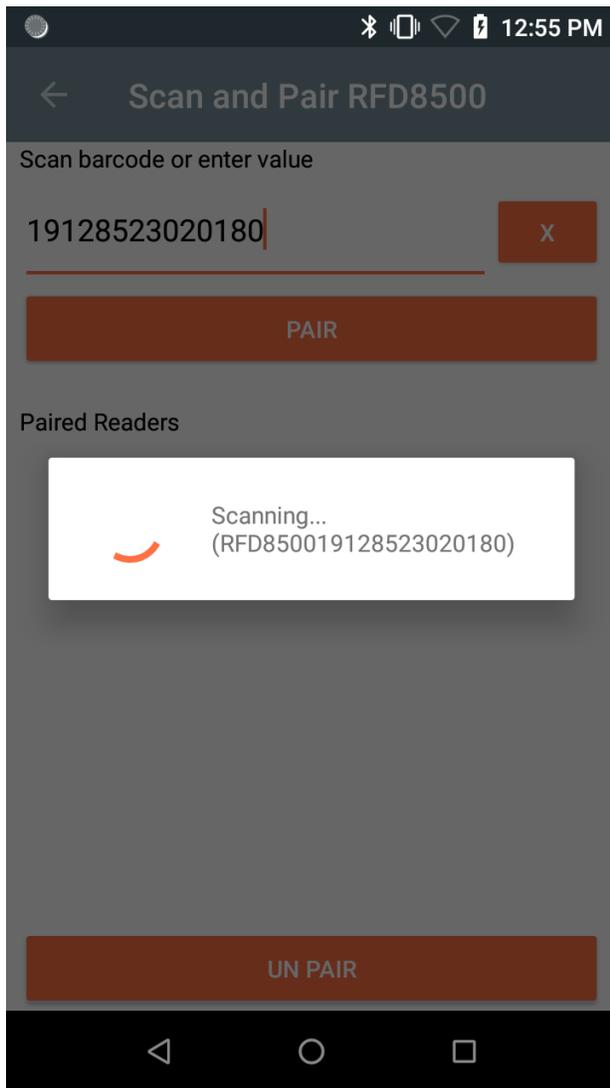
Brand ID Check

This section describes the usage of 123RFIDMobile application to verify Brand ID on NXP UCode8 tags that support this feature.

Note: Please use latest firmware on reader which supports NXP Brand ID feature to use following

Enable Brand Check
1. Launch the 123RFID Mobile Application
2. Navigate to Settings -> Advanced Reader options -> Tag Reporting
3. Under NXP Brand ID Check section, Enable Brand Id checkbox.
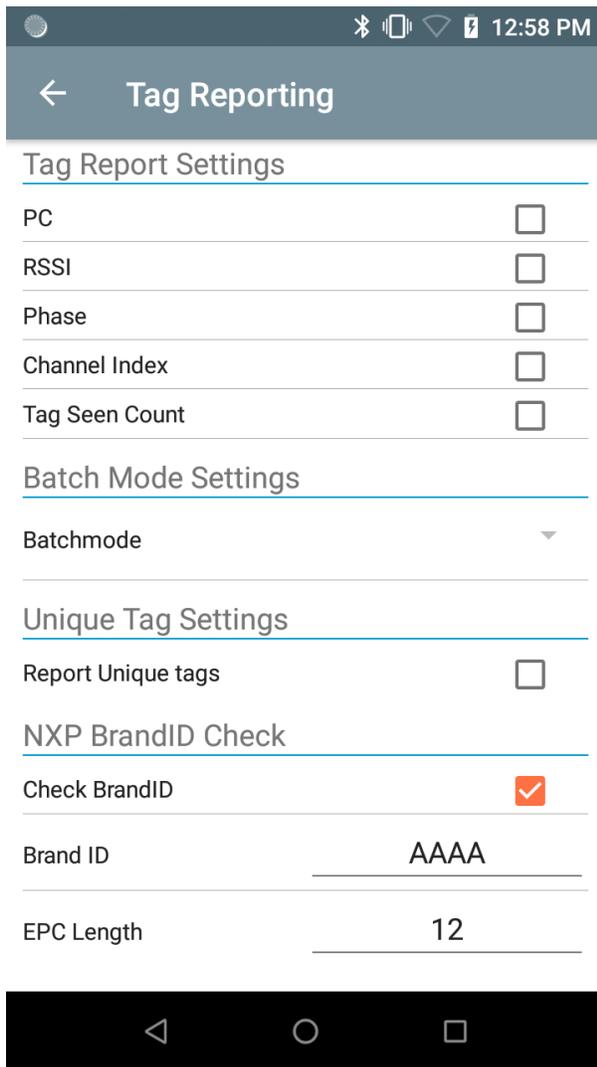
4. User also need to give input for Brand ID and EPC length as per the Tag Spec.

5. User can go back and start the inventory.

If the TAG has matching brand id, inventory list will show the tag data in blue color
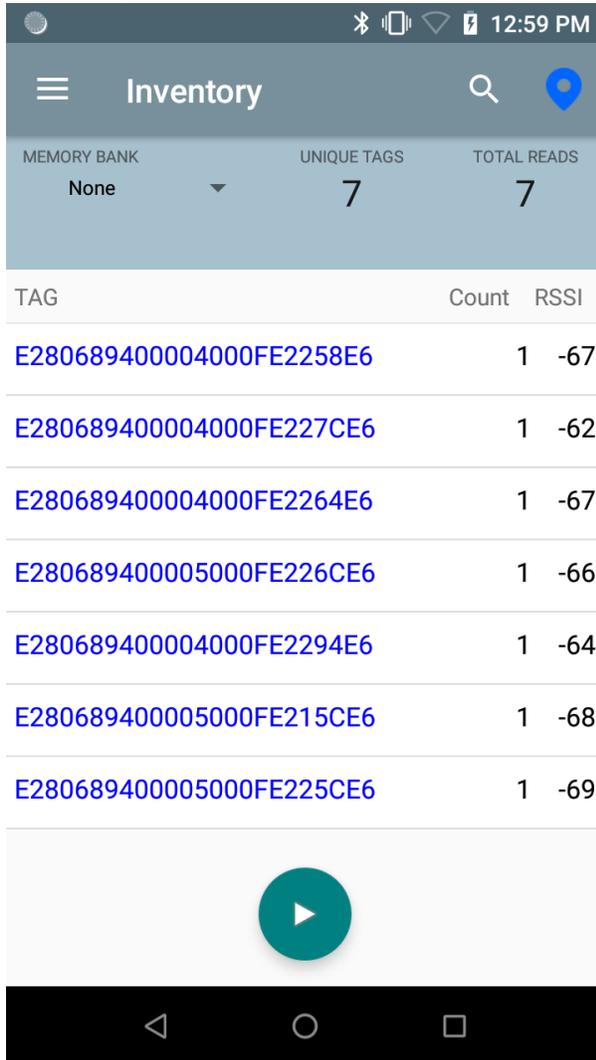
Device Compatibility

- MC3300xR (Android Nougat & Android Oreo)
- RFD2000 with TC20 (Android Nougat) and TC20 (Android Oreo)
- RFD8500

Note: RFD8500 validated with TC56 (Android Oreo), TC72 (Android Pie), TC52 (Android 10), MC3300x (Android Oreo & Android 10)

Components

The zip file contains the following components:

- 123RFID Mobile Application APK file and source code
- Android Studio project

Installation

Supported operating systems:

- Android KitKat 4.4.3 and later for RFD8500
- Android Nougat 7.X and later for RFD2000 & MC3300R

Developer system requirements:

- Developer Computers: Windows 7/64-bit
- Android: Android Studio (2.3 or later), and Android API Level 25 or later

Known issues

Note: Following issues will be addressed in next release of application

1. In rare case application can go out of sync with RFD8500 with following scenario.
   Application has started inventory. Reader goes out of BT range and moves to batch mode.
   Application is trying to do auto connect. Reader moves in range and application connects fine. After connection user presses multiple time STOP button to stop batch mode inventory which leads to exception.

   Workaround: User should kill and relaunch application which should get connected fine and batch mode can be stopped.

2. Application can misbehave when inventory is performed or "Optional Memory Bank" is read without setting the region when connected with RFD8500.

   Workaround: It is recommended to set the regulatory as the first operation when connecting to RFD8500 the first time.

3. Application shows inventory as not started (Start icon does not turn to stop) when using Periodic Start Trigger with Batch Mode – Enabled with RFD8500.

   Workaround: User needs to wait for inventory to start (based on specified period) after which the icon and operation state is correct.

4. Exporting Data multiple times causes the application to stop with Android 9. The issue is not observed in other versions of Android including Android 10.