RapidScan

Bluetooth SPP Guide

August 2023

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Introduction

This guide describes how to use the RapidScan application in SPP mode. The way the app behaves in SPP mode is slightly different than BLE mode so there are a couple things you should be aware of if you choose SPP mode.

Before we get started, be aware that RapidScan supports being used as both an SPP Central and an SPP Peripheral. We will cover the differences and how to configure RapidScan later.

Pre-Requisites

- HaloRing with the RapidScan application installed
- SPP backend service

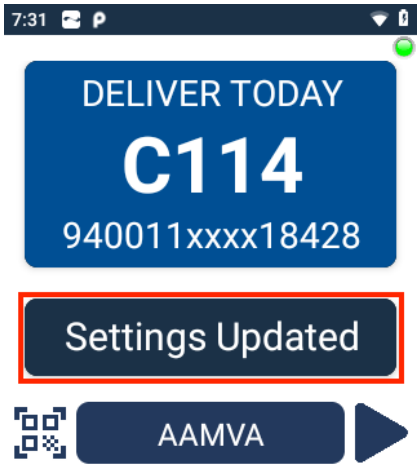
App Configuration

Out of the box, RapidScan's default connection mode is Wi-Fi so you will need to change the app's configuration to switch it to your desired SPP mode. The easiest way to do this is by scanning a QR code containing an app config JSON like the sample below.

The contents of the QR code are shown in the lines below. As stated previously, RapidScan can be used as both peripheral and central. If you would like instead to use RapidScan as a central, generate a QR using the same text as below but with "sppCentral" as the mode.

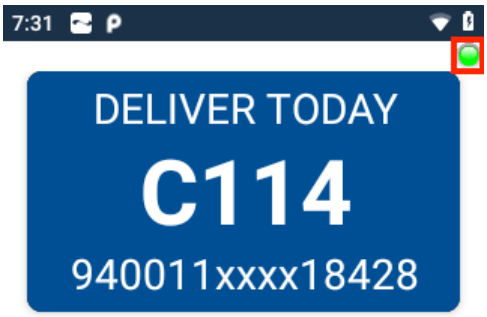
```
{
    "action": "config",
    "command": {
        "mode": "sppPeripheral"
    }
}
```

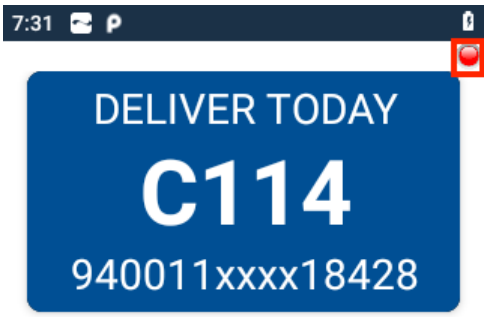
With RapidScan open and in the foreground, scan the app config QR and if successful you should get a message that looks like the following highlighted in red below.



Connection Status

The connection status indicator is shown below highlighted in red. When the indicator is green it means RapidScan is currently connected to your SPP service. Red indicates that the device is not currently connected.





As an added indicator, if a barcode is scanned while the device is not connected RapidScan will notify the user with an error message + beeps & vibrations.

Outgoing Payloads

The SPP payload format is made to fit into legacy systems and is thus quite different from JSON payloads used when RapidScan is using Wi-Fi. You will notice that we only send a payload in SPP mode for the basic barcode scan event.

Barcode Scanned

This payload is sent on successful barcode scan. The format covered below is the default payload for outgoing barcode scans but this can be changed via MagicFilter. You can check out our MagicFilter documentation for more info on this.

Format: [STX]type,barcode,verb[ETX] or [STX]type,barcode[ETX]

Parameters	Details
[STX] = start of text ASCII character	
type = barcode type	**Values:** Any integer Integer value of the corresponding barcode type. Lookup table to come.
barcode = string value of barcode	**Values:** Any string
verb = current verb (OPTIONAL)	**Values:** Any string Name of the current verb. ***If there are no verbs this field will be omitted.***
[ETX] = end of text ASCII character	

Incoming Payloads

There are currently only 2 possible incoming messages: “risl” which is how RapidScan receives RiSL cards and “config” which is another way RapidScan can consume app config payloads. Both messages should follow standard JSON formatting.

```
// RiSL Action
{
    "action": "risl",
    "command": "^StartCard|290|70^TextC|4|Hello World!^ShowCard"
}

// Config Action
{
    "action": "config",
    "command": {
        // App settings go here
    }
}
```