Honeywell

IH40 UHF RFID Reader

Software Development Kit

Quick Start Guide

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USING THE IH40 SDK

Requirements

The IH40 UHF RFID reader Software Development Kit (SDK) has the following requirements for the IH40 and the mobile device.

IH40

- USB firmware version: FZ0000007BAA
- Bluetooth® firmware version: 4.0.6

Mobile Device

- Android OS: Android P MR16 88/87.00.16-(0181)

Note: *To learn more about Honeywell mobile devices compatible for use with the IH40, go to* sps.honeywell.com.

Import the SDK

The RFID SDK AAR archive file contains the files and libraries that enable your Android application to communicate with the IH40.

1. Import the SDK AAR file into the **libs** directory in your Android Studio project.
2. Add the AAR file to the *dependencies* section of the **build.gradle** file in the Gradle module.

   ```
   implementation(name: 'honeywell_rfid_sdk_v1.0.3', ext: 'aar')
   ```
3. Sync the project to complete the import process.

Integrating the SDK

You must create the RfidManager, which allows your application to manage communication with the IH40. You must also create the RfidReader, which allows the application to use the IH40 for RFID scanning.

1. Create the RfidManager for global calling in a class that extends the application or activity.

```
//Create RFID manager
RfidManager.create(this, new RfidManager.CreatedCallback() {
    @Override
    public void onCreated(RfidManager rfidManager) {
        //save the RfidManager
    }
});
```

2. Add the EventListener to listen for callbacks from the IH40.

```
rfidManager.addEventListener();
```

3. Create a connection between the IH40 and your mobile device by following the steps in Connecting the IH40.
4. Create the RfidReader. The onReaderCreated method of the EventListener indicates that the RfidReader was created.

```
rfidManager.createReader();
```

5. Use the RfidReader methods to allow your application to perform RFID scanning with the IH40.

```
rfidReader.setOnTagReadListener();
rfidReader.read();
rfidReader.stopRead();
```

Connecting the IH40

Your application can be designed to use Bluetooth wireless technology or a USB communication to connect the IH40 to the mobile device.

Connecting with Bluetooth Wireless Technology

Use the Android BluetoothAdapter and the IH40 RfidManager to create a Bluetooth connection to the IH40.

1. Retrieve the Bluetooth adapter for your device.

```
BluetoothAdapter adapter =
BluetoothAdapter.getDefaultAdapter();
```

2. Search for Bluetooth devices.

```
adapter.getBluetoothLeScanner().startScan();
```

3. Stop the search for Bluetooth devices.

   ```
   adapter.getBluetoothLeScanner().stopScan();
   ```

4. Create a connection to the IH40.

   ```
   rfidManager.connect();
   ```

Connecting with USB

You can connect to the IH40 with USB when a mobile device is mounted on the IH40.

Use the getAttachedUsbDevice() method of the RfidManager to create a USB connection.

```
rfidManager.getAttachedUsbDevice();
```

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