FieldHart

HART Communicator Software

User Manual

V1.0

Warning

Please read the user manual carefully to have better understanding on how to use the software.

Disclaim

The contents of the manual have been checked to confirm the consistency of the described hardware and software. Since the error cannot be eliminated completely, the consistency cannot be guaranteed absolutely. We will regularly check the data in the manual and make necessary corrections in subsequent versions. Any suggestions for improvement are welcome.

Shenyang FieldIoT Technology Co., Ltd.

Technical data is subject to change at any time.

About FieldIoT

Shenyang FieldIoT Technology Co., Ltd. was founded by several senior scientific researchers of the Chinese Academy of Sciences and is committed to the research, development, production, sales and service of communication products based on ZigBee, NBlot, 5G, MQTT, OPC/UA and other Internet of things technologies. All R&D and sales personnel of FieldIoT have bachelor degree or above. FieldIoT has good cooperative relationship with many universities and scientific research institutions in Shenyang. With their help, FieldIoT has completed the transformation from scientific research achievements to products, and carried out deeper cooperation in talent training.

FieldIoT's products have broad application prospects in many industries, such as wireless meter reading, power monitoring, smart home, medical monitoring, industrial field data acquisition and control, etc. The company will provide technologies and products related to Internet of things for the global market, as well as ODM and OEM business of products in this field.

Summary

FieldHart is a fully self-developed HART protocol device configuration software, including Windows and Android versions, which can be used on different platforms. The software supports standard HART device DD file analysis and all the device configurations registered by FCG.

Features

- ➢ Mobile HART communication solutions based on DD
- ➢ Perform complete HART device configurations with Android device
- ➢ Support HART 5, 6, 7 and WirelessHART devices
- ➢ Complete access to all features of the device DD including methods
- ➢ Monitor PV, multi-variables and device status
- ➢ View and edit device variables
- ➢ Easy to navigate device menu structure
- ➢ Get the information you want quickly
- ➢ Language support for Chinese and English

Installation

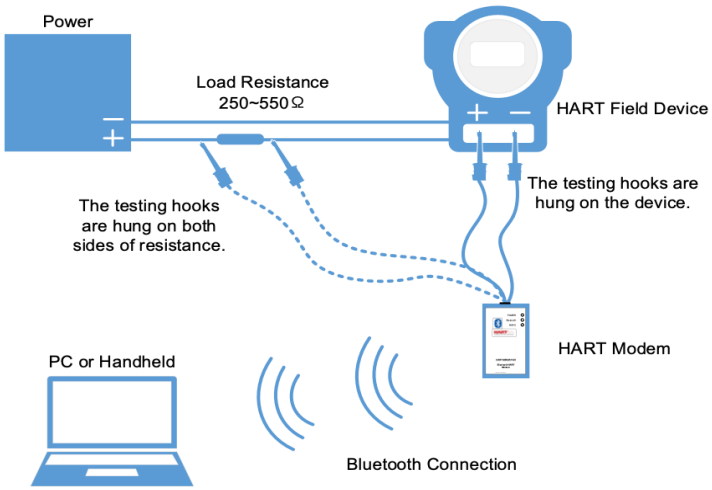
FieldHart software is divided into two APP programs, one is the main program FieldHart, and the other is the DD library installation FieldHart_DD_Update. The installation sequence is to install Fieldiot.FieldHart.apk first and then Fieldiot.FieldHart_DD_Update.apk. Please follow the prompts to install by default. Users can obtain the latest APP software through the internal upgrade function of FieldHart APP program.

Note: The FieldHart App program needs local storage, Bluetooth communication and other permissions when running. Users need to agree to use these permissions when using the FieldHart app program for the first time, otherwise the APP program will be abnormal.

Note: FieldHart_DD_Update app will occupy about 1.5G of storage space. Please make sure the Mobile has enough storage space to install DD files.

Device Connection

When using FieldHart APP program, the users shall use HART Bluetooth for HART device debugging. Please refer to the following figures about the connection.



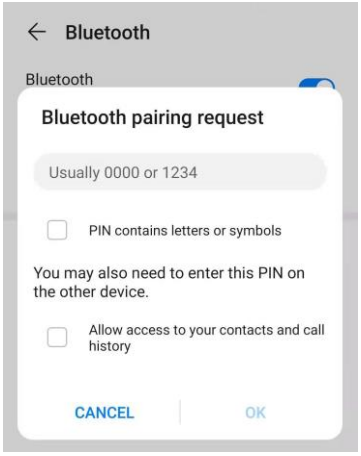
The Connection with Bluetooth Modem

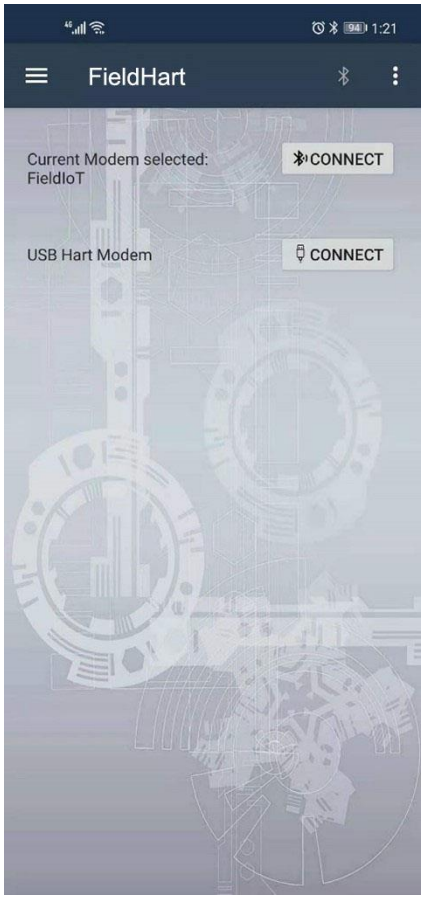
Operation

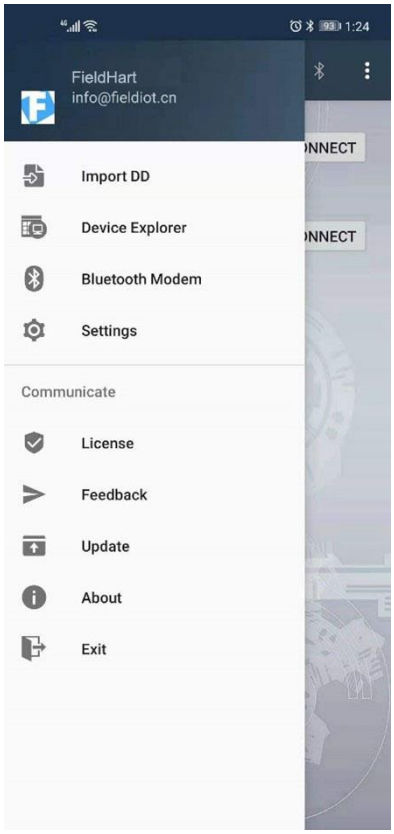
The startup page displays software name, company ID and version number.

The main interface displays the main connection mode of the software, including Bluetooth mode and USB mode. The users can click CONNECT to connect corresponding HART modem for online device operation.

Note: The Bluetooth HART modem needs to be paired in advance in the system settings of the mobile. The users can find the Bluetooth device with the name beginning with FieldIoT for pairing, and the pairing pin code is 1234.

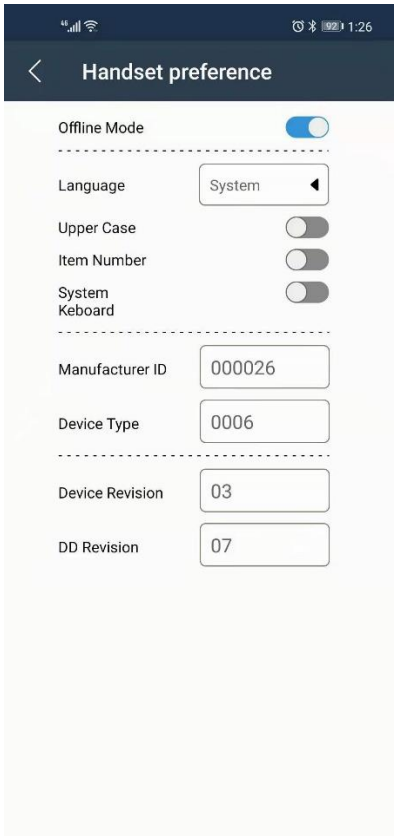






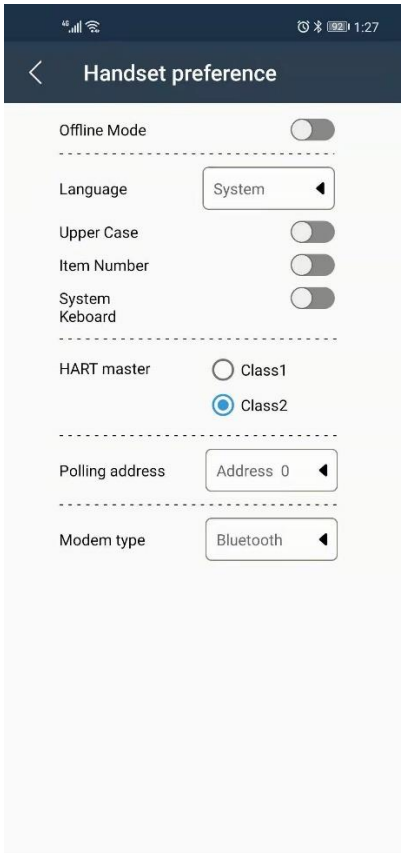
The software main menu mainly displays the main functions of the software, including Import DD, Download DD, Device Browsing, Setting, Authorization, Feedback, Upgrade and About, etc.

In the setting interface, the users can select the offline mode. At this time, the users can configure the language, DD file to browse, manufacturer number, device type number, device version and DD version.



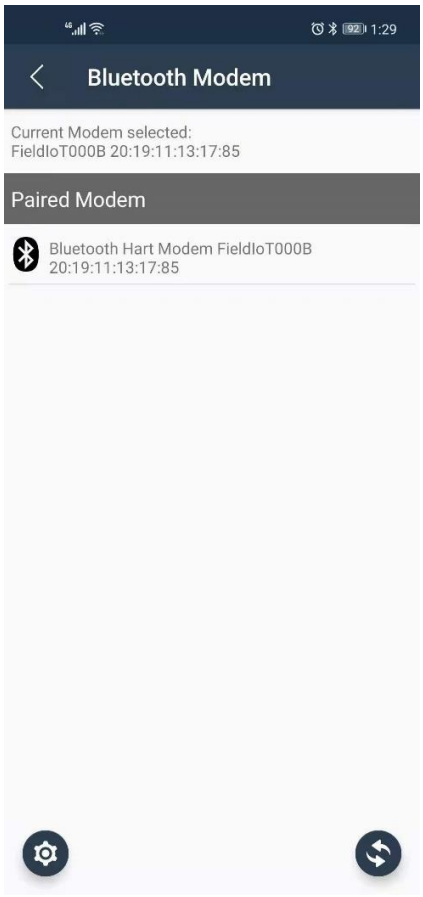
Note:
DD file storage path is:
\Internal storage\com.FieldIoT\FieldHart\ddl\ library

If the installed DD library does not contain the DD file of the debugging HARTS device, the user need to manually copy the DD file to this directory.

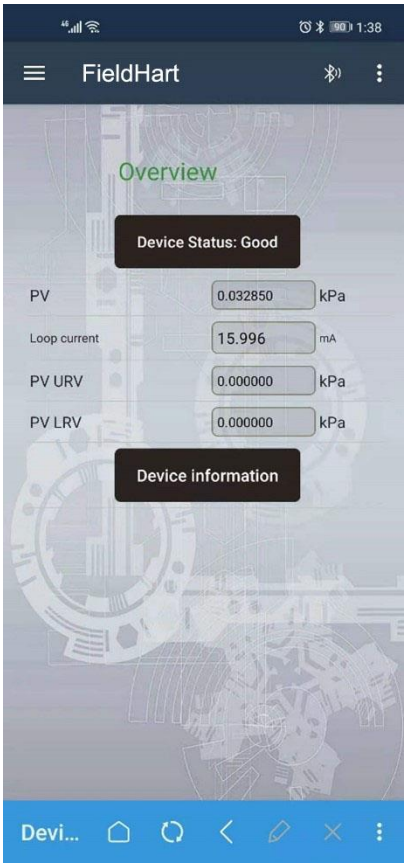


The online mode can be selected in the setting interface. At this time, the language, HART host type, polling address and interface type can be configured.

After the Bluetooth interface is configured, the user can click the Bluetooth interface to select the Bluetooth device to be connected.



In the offline mode, the user can click the menu to browse the device and view the device DD file structure offline. In the online mode, after connecting the required modem, the user can click browse device in the menu to start operating the device.

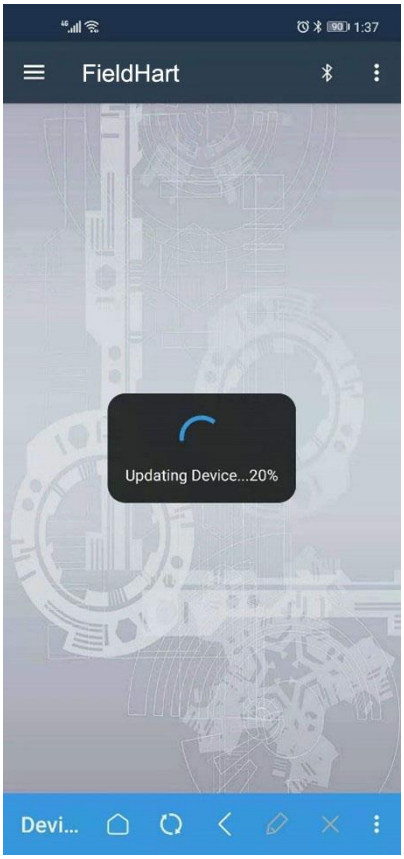


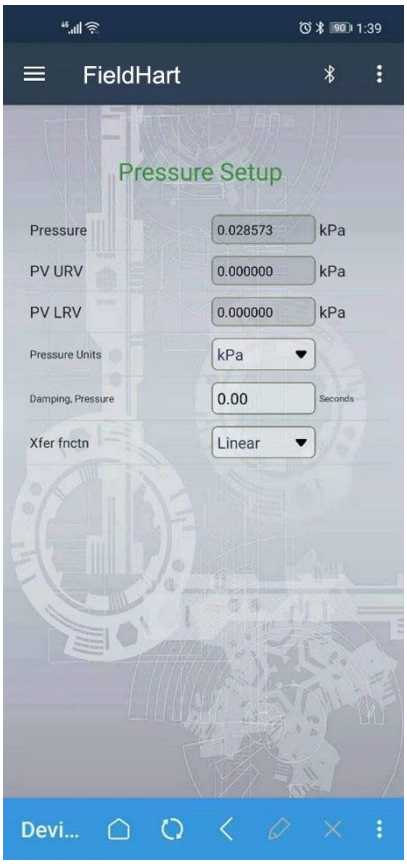
After the device refreshes and goes online, the online root directory menu will be displayed. The user can enter menus at all levels through the root directory.

In the device operation, the menu button is marked in black, and the method is in blue.

The general device provides device information browsing, as shown in the figure.

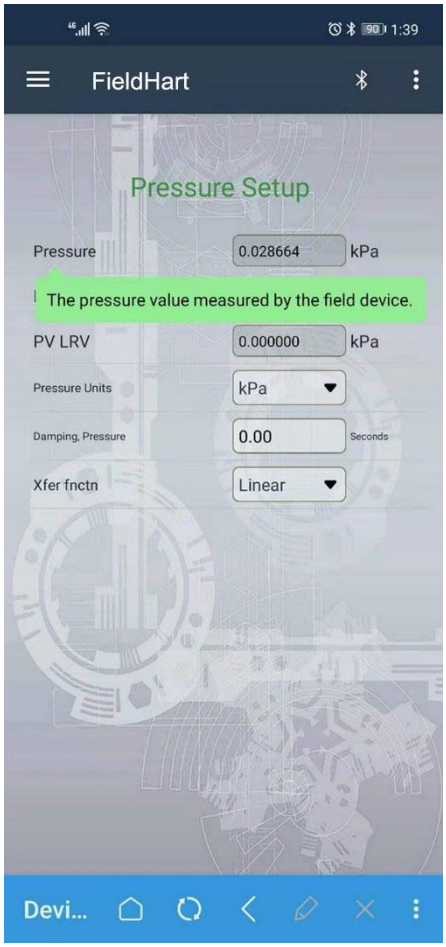
The refresh percentage will be prompted when the device is refreshed.

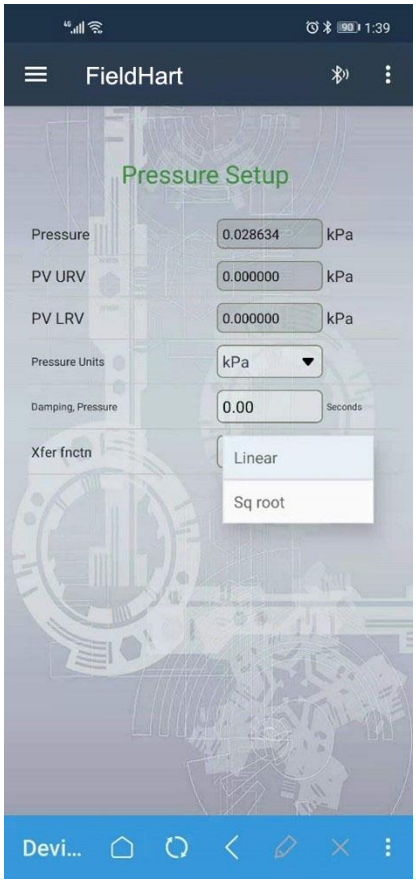




The gray background is an inoperable option, and the white background is a modifiable one.

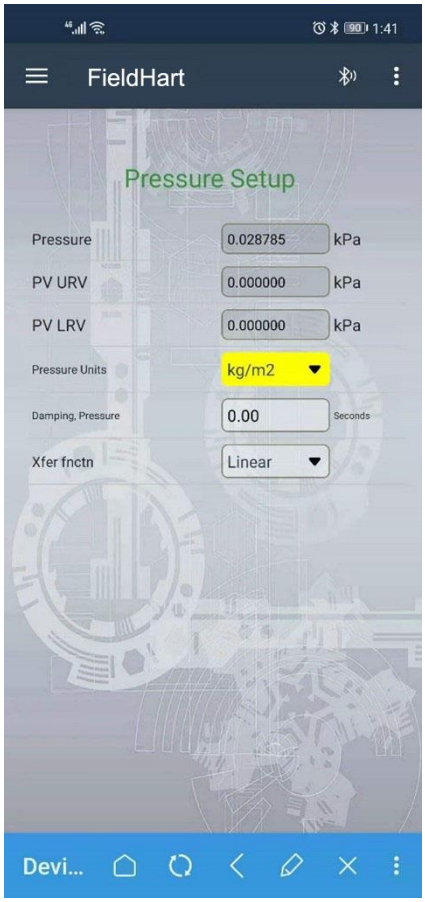
The user shall click the option title to display the description information of the currently clicked attribute.

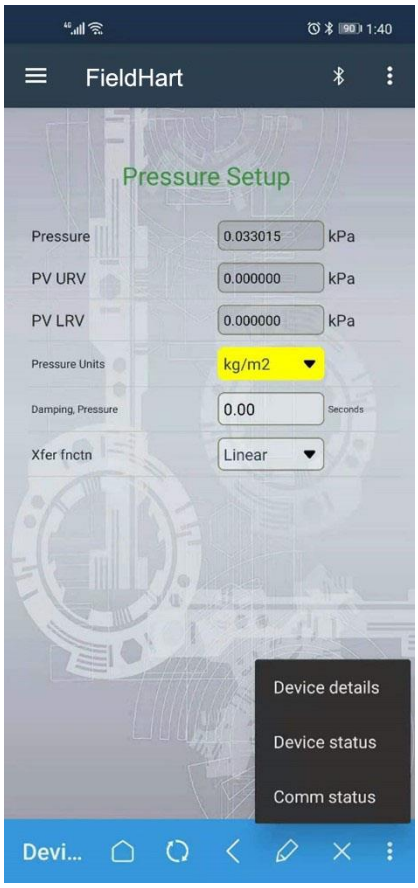




The attribute information is selected from the information in the drop-down list.

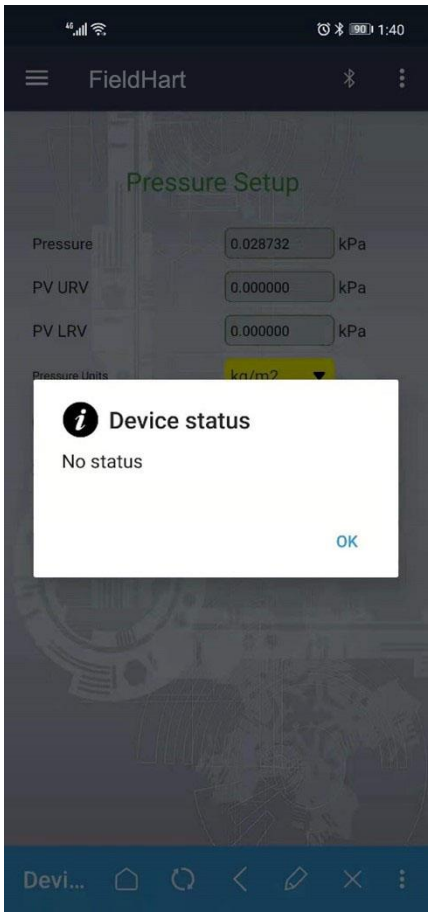
After modifying the data of text input attribute, the background is marked in yellow.





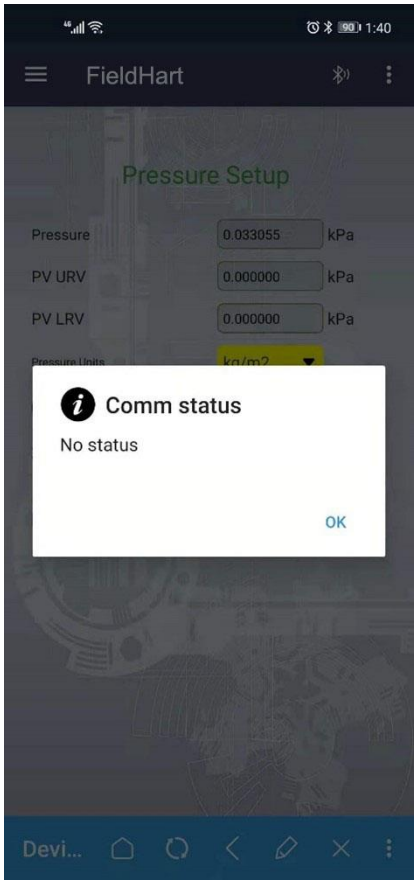
The user shall click the button in the lower right corner to view "Device Information", "Device Status" and "Communication Status".

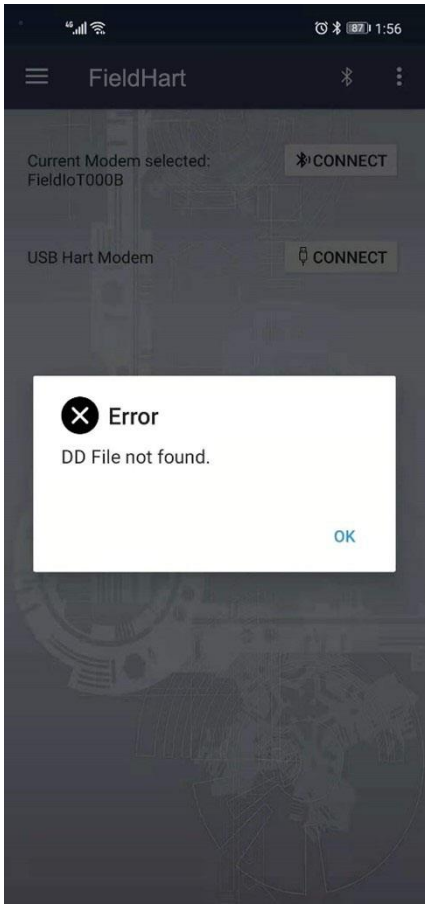
The current device information will be listed in the "Device Information", including manufacturer, device type, device version number, DD version number and DD file path.



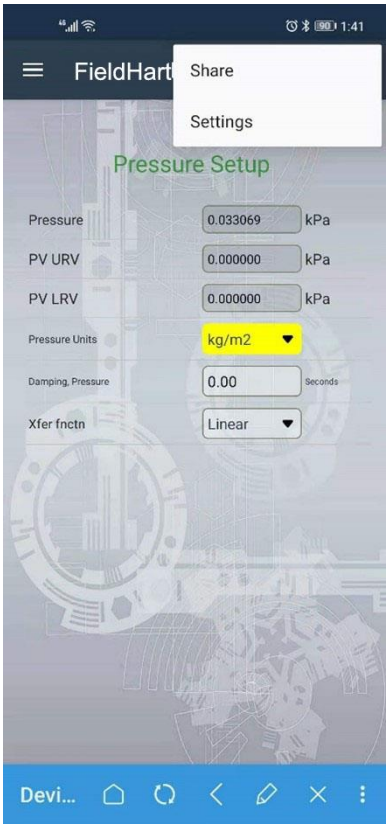
The current device status is listed in “Device Status”.

The current communication status is listed in “Comm Status”.



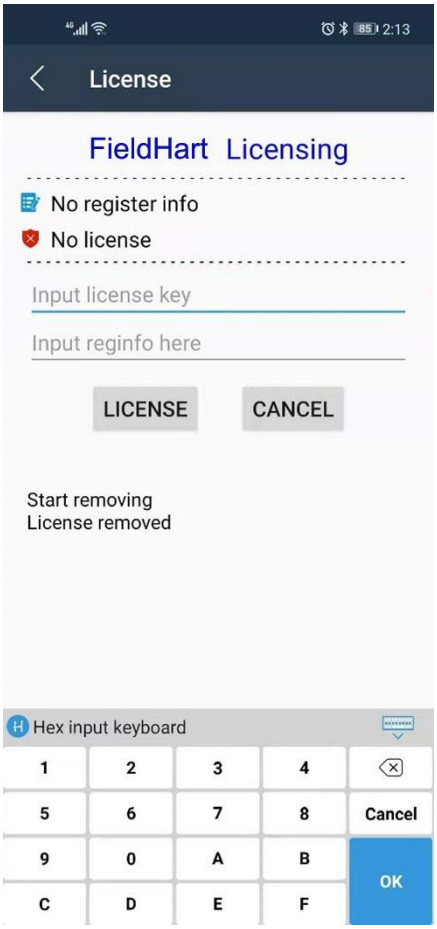


If the DD file of the connected field device is not found, the standard DD will be loaded for analyzing.



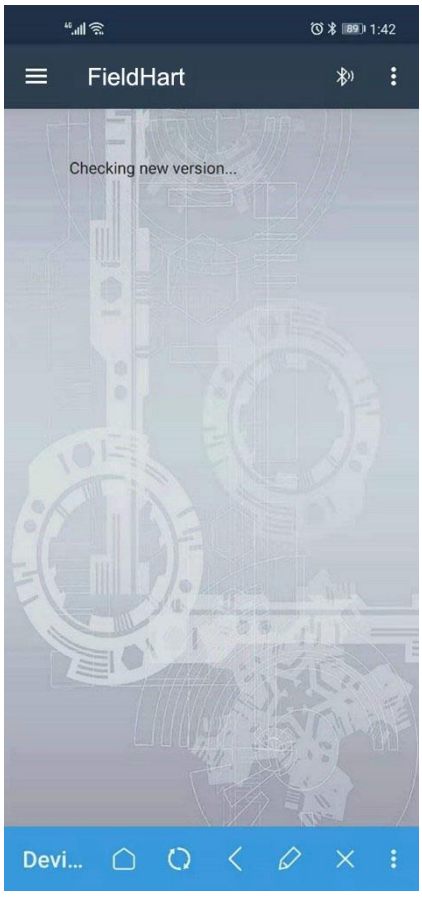
The user can click the button in the upper right corner to share the APP program.

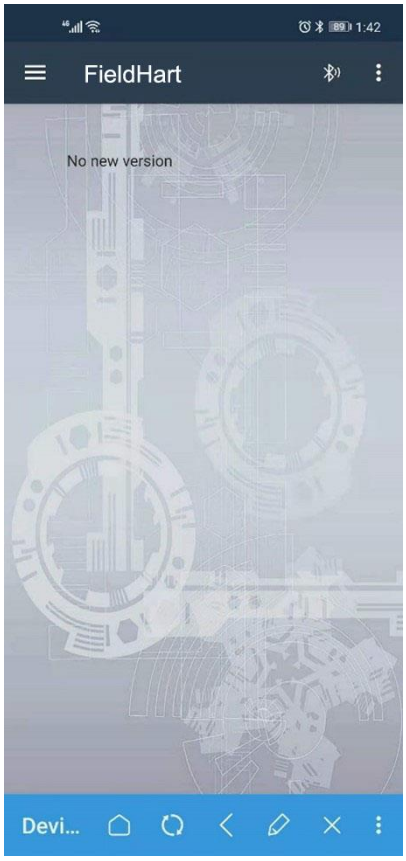
It can be shared to the following applications.



The user shall input the software authorization code to authorize.

The user shall click the upgrade menu and will be prompted to check the new version.





If there is no new version update, the user will be prompted "No new version”.