Akuvox ACR-CRP12 Tool Administrator Guide

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AKUVOX ACR-CRP12 TOOL

Administrator Guide

This manual guides you in setting up the Akuvox access control reader ACR-CRP12 with its software tool, including all features and parameter explanations. It is written based on the software version V1.01.

Product Overview



Akuvox's ACR-CRP12 is a long-range access control reader that operates at ultra-high frequencies, offering stable card reading performance. It boasts low power consumption and a long service life. This device is ideal for applications such as parking lot management.

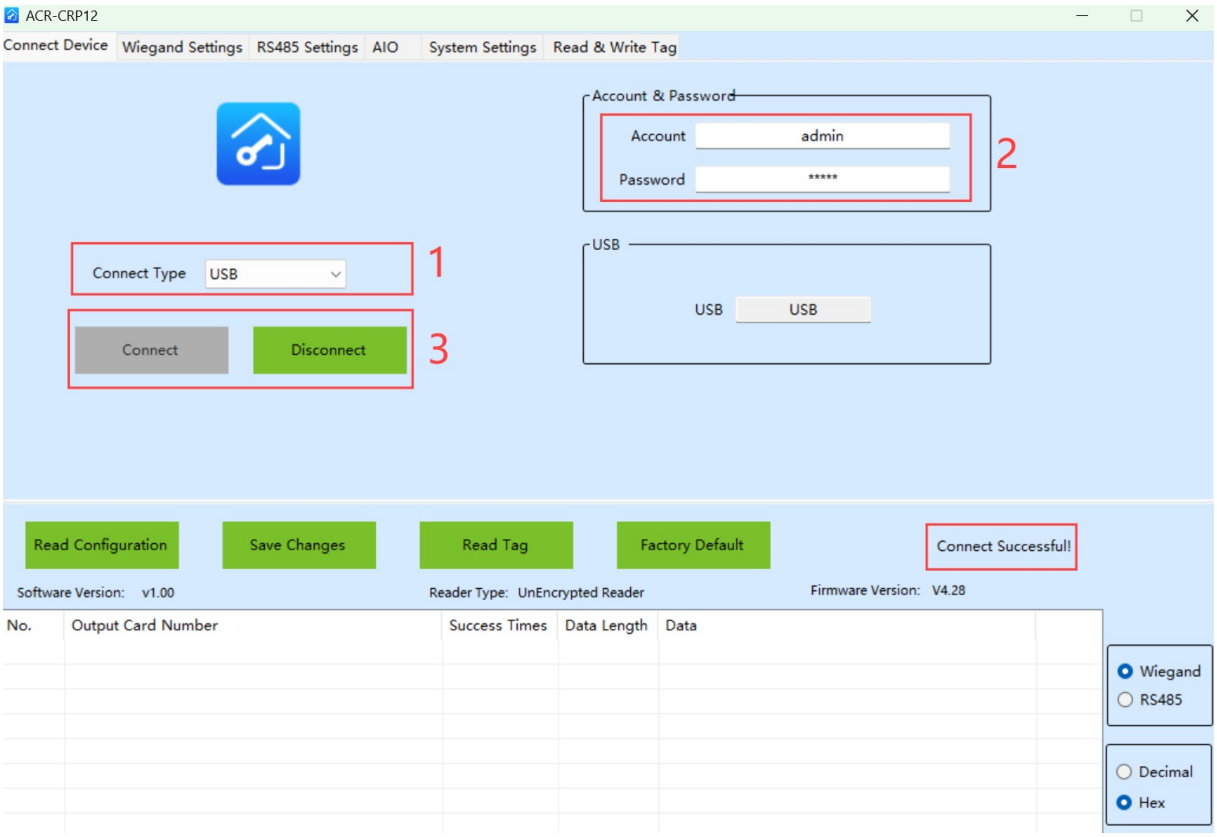
Before You Start

Make sure:

- you have acquired the latest version of the ACR-CRP12 Tool from Akuvox tech support;
- ACR-CRP12 is powered on with a 12V power supply in a normal status;
- ACR-CRP12 is connected to your computer through USB correctly.

Device Connection

1. Run the ACR-CRP12 tool to enter the **Connect Device** interface.
2. Select **USB** as the connect type.
3. Enter the Account Name and Password, both **admin** by default.
4. Click **Connect**. When your computer detects and connects to ACR-CRP12, “Connect Successful” will display.
   You can click **Disconnect** to cut off the connection.



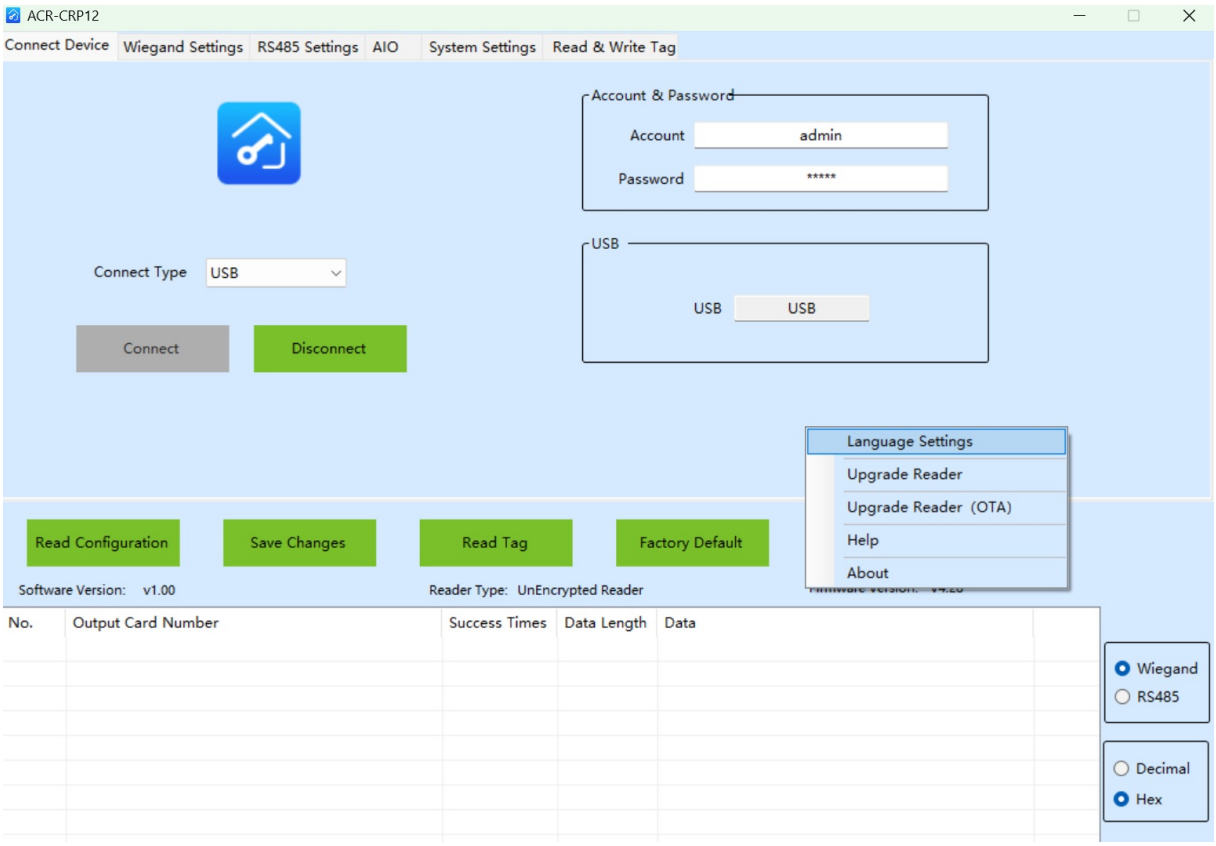
Basic Setup

You can change the software language, upgrade it to the latest version, and obtain the device's current configuration.

Select Language

You can select the software language.

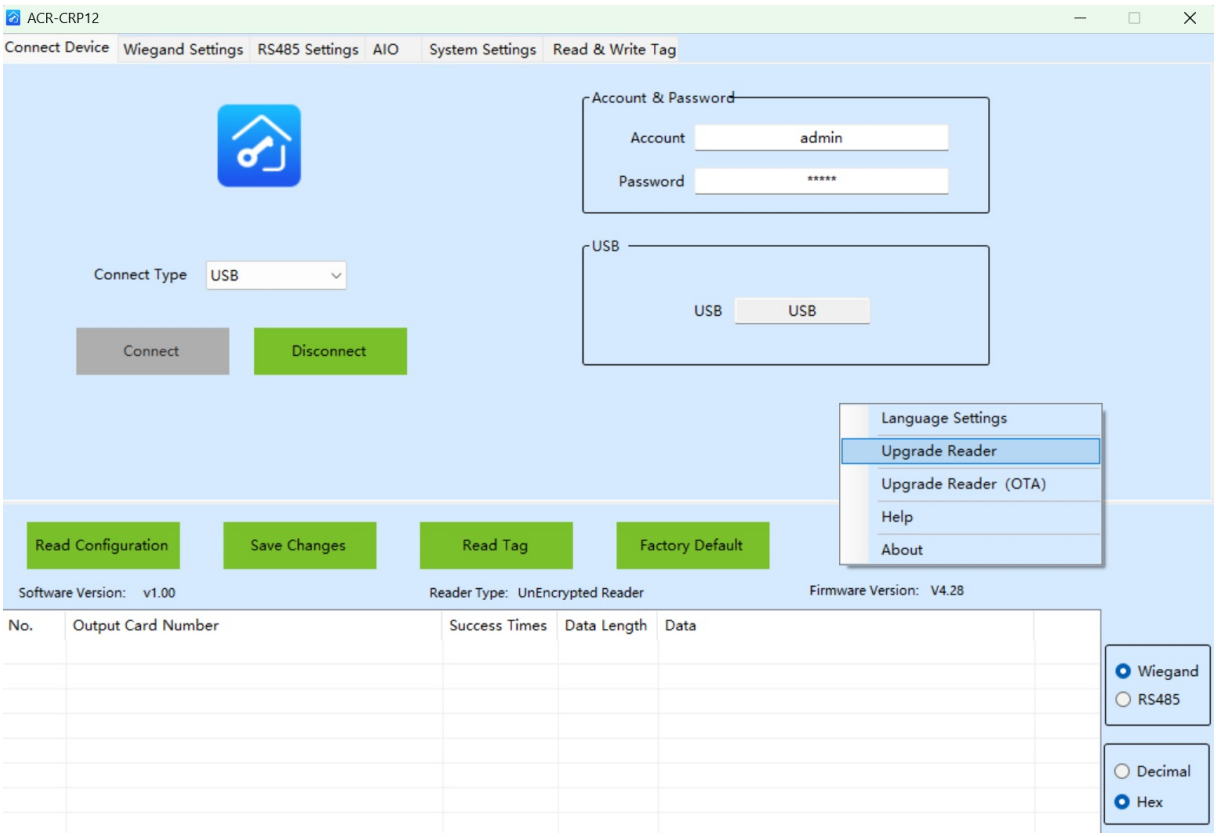
1. Right-click on a random interface and click **Language Settings**.
2. Select the language between English and Simplified Chinese. You will be prompted to restart the software for the change to be effective. After restarting, you need to log in again.



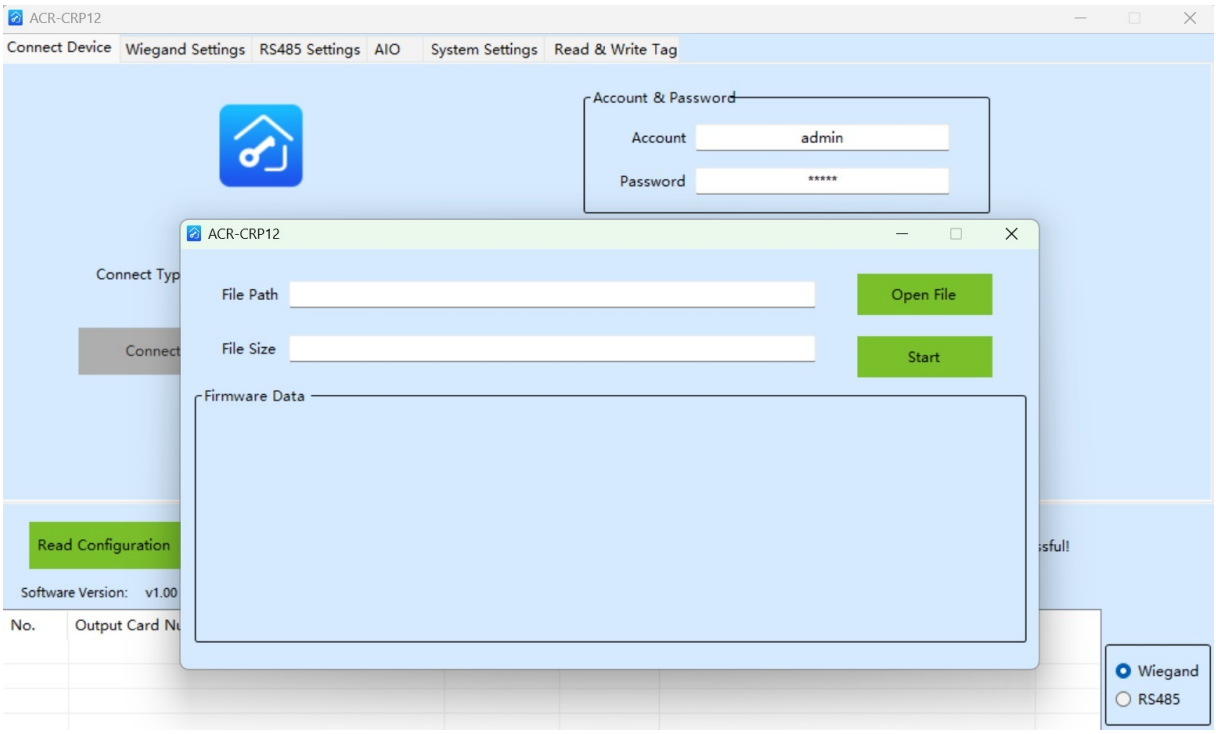
Upgrade the Device

You can upgrade the device to the latest version.

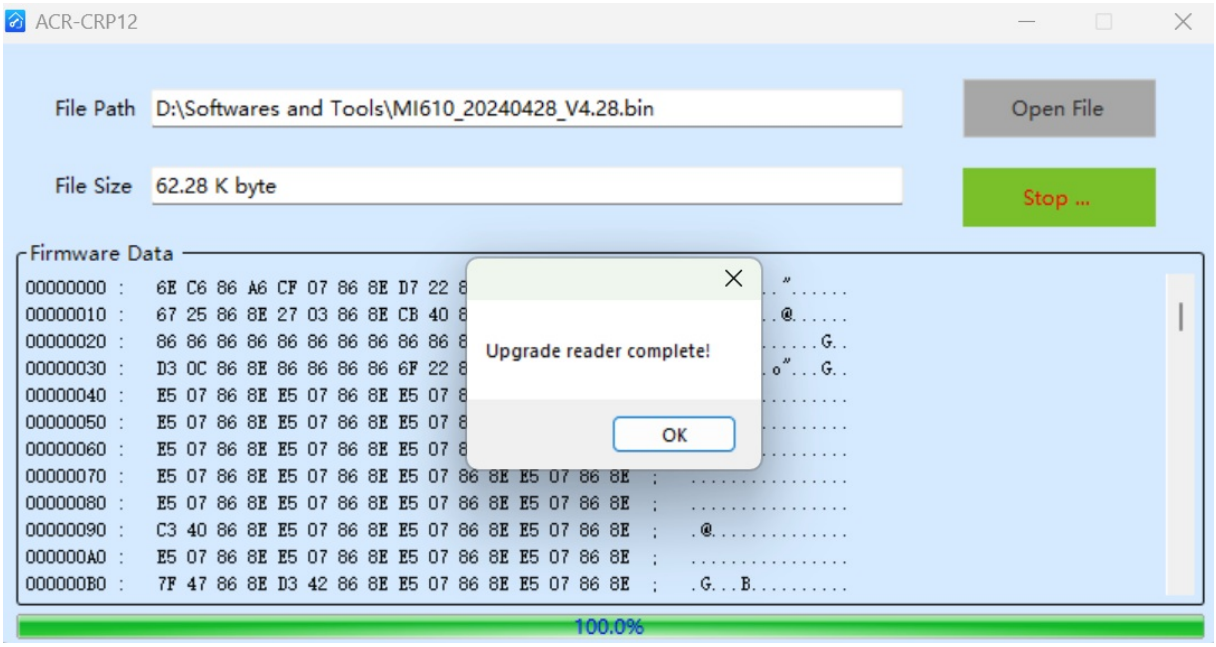
1. Right-click on a random interface and click **Upgrade Reader**.



2. Click **Open File** and select the file from your driver.
3. Click **Start** and power off the device and disconnect it from the computer by unplugging the USB.
   Please do not close off the upgrade window.



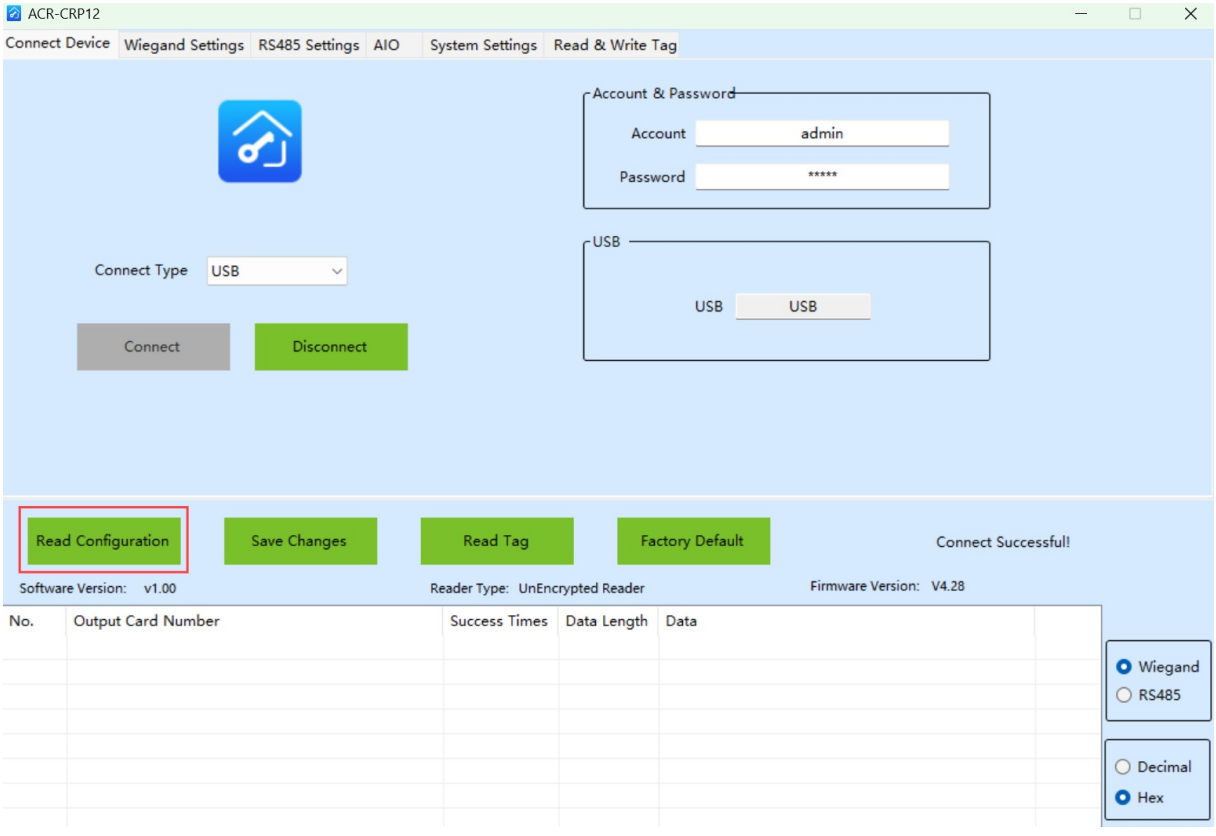
4. Power on and reconnect the device to the computer through USB.
   The device will start upgrading automatically.



Read Configuration

You can acquire the device's current configuration by clicking **Read Configuration** on any interface.

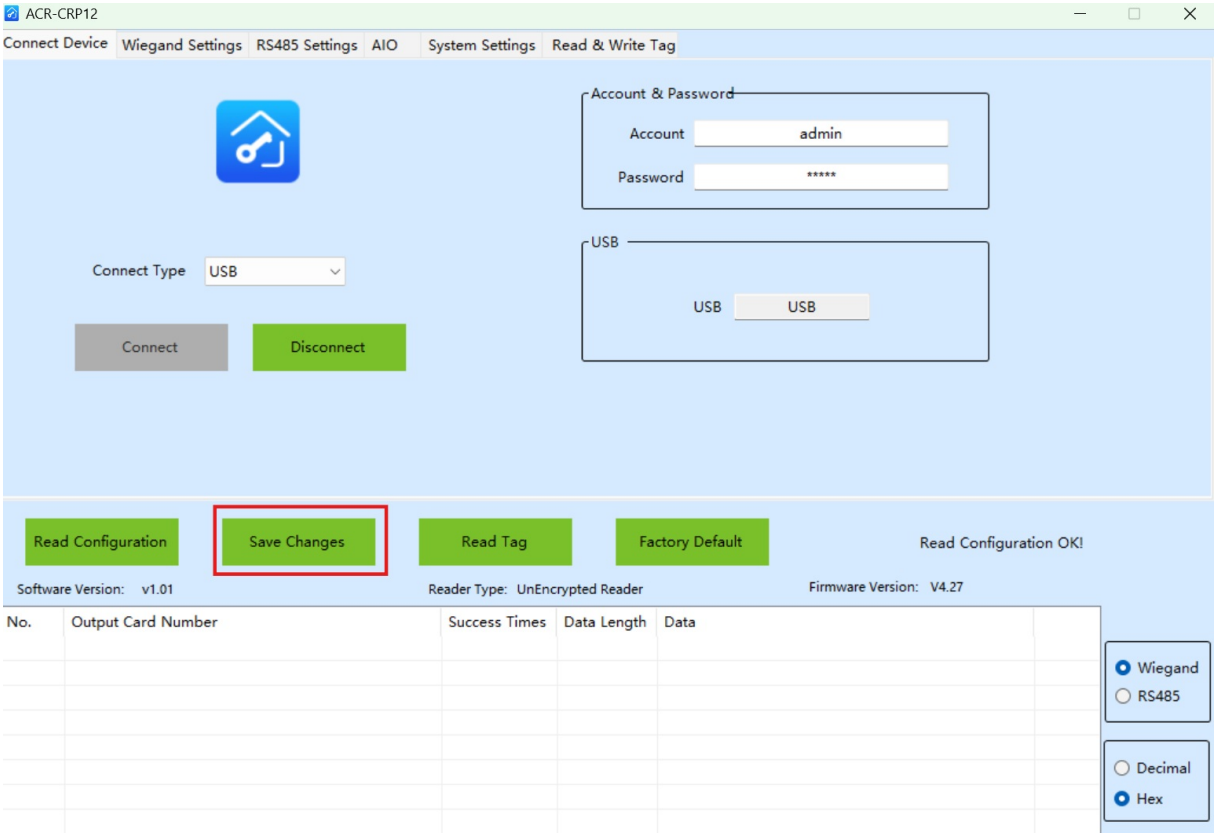
This tab works for all interfaces of the software.



Save Changes

You need to click **Save Changes** to confirm the configuration after changes.

This tab works for all interfaces of the software.

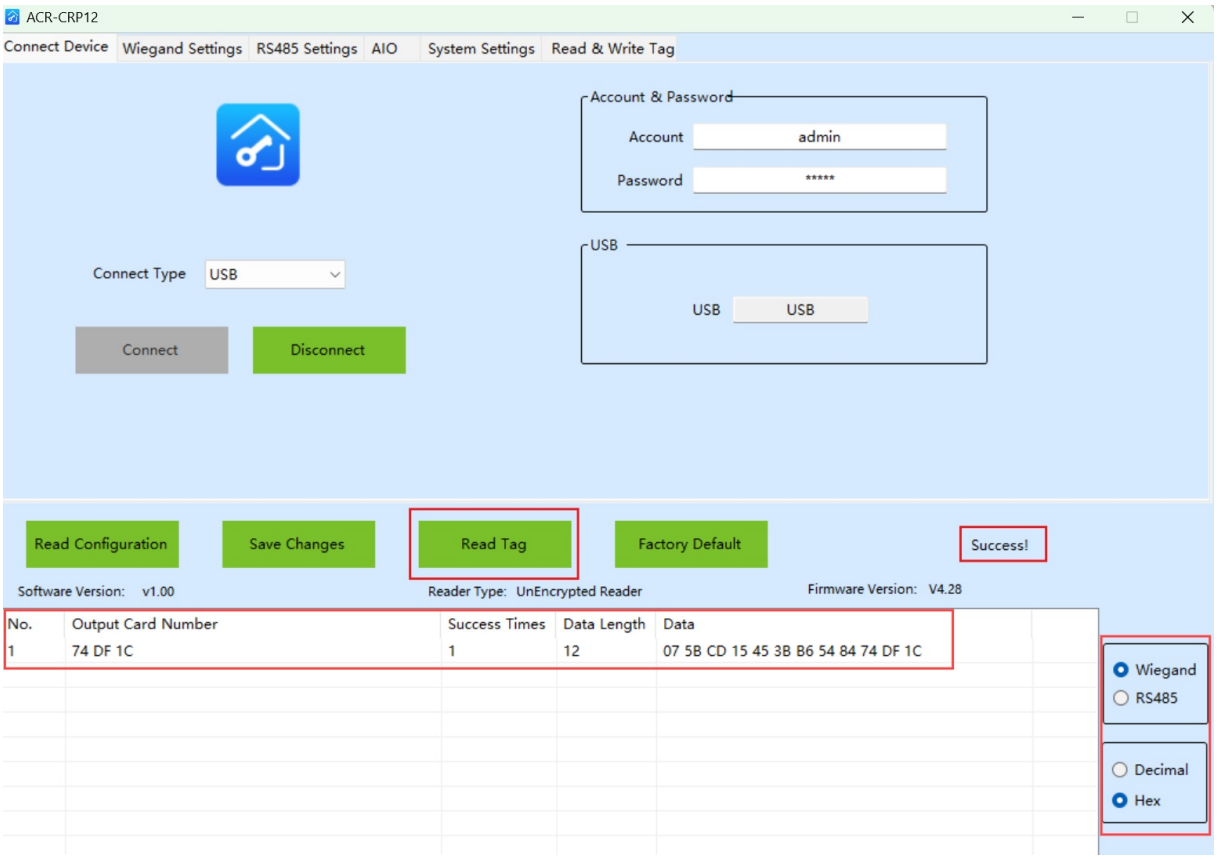


Read Tag

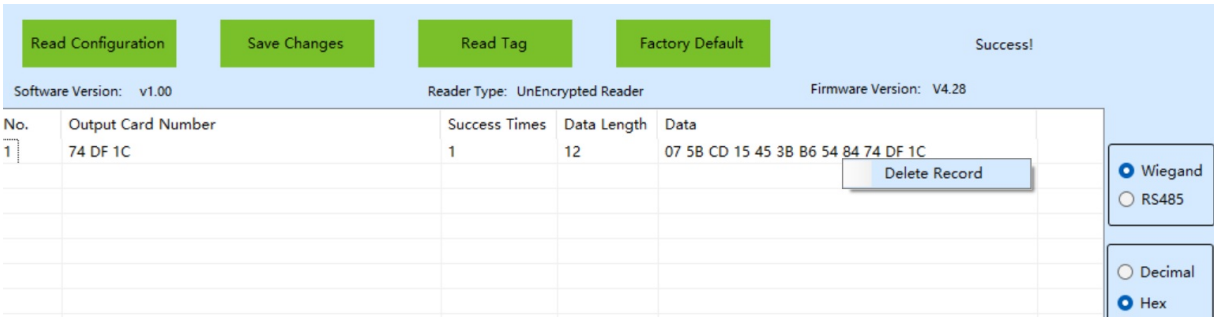
Place the tag near the device and you can click **Read Tag** on any interface to obtain the tag data.

Select **Wiegand** on the lower right box and select **Decimal** or **Hex** which decides the data display format.

When successfully obtaining the data, the device will flash green light and make a short beep.

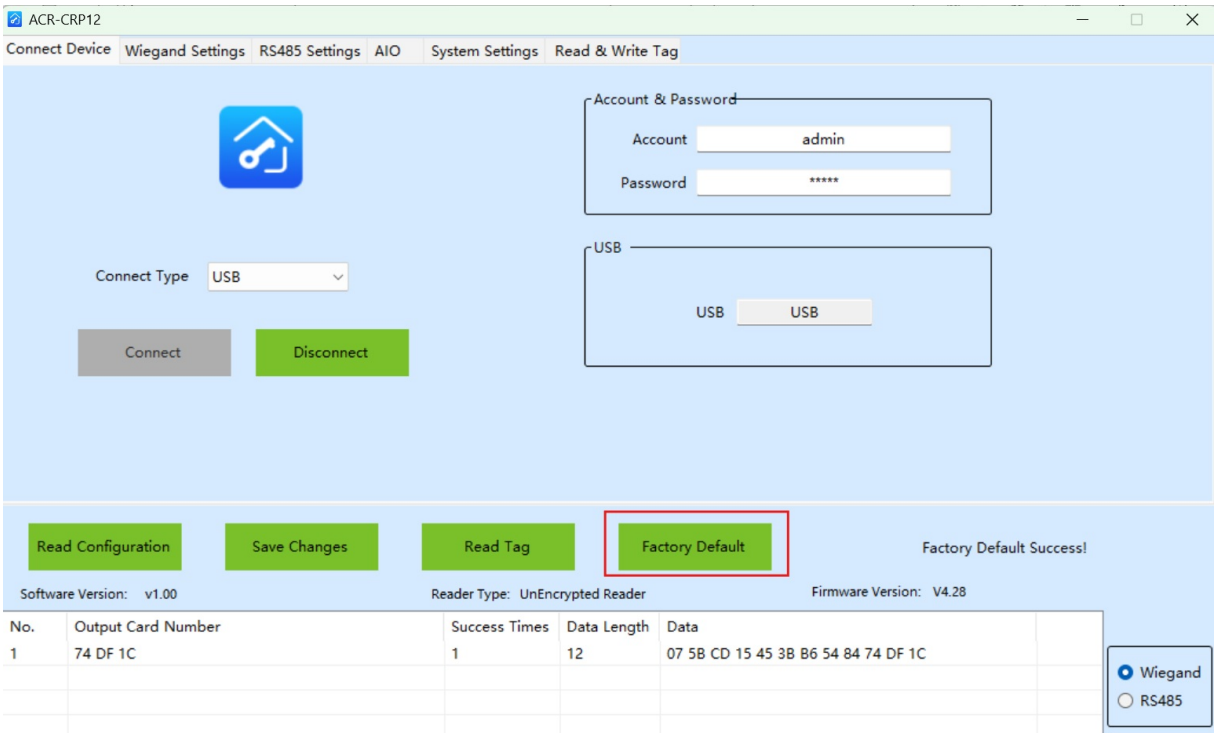


You can right-click on the record to delete it.



Reset the Device to Factory Settings

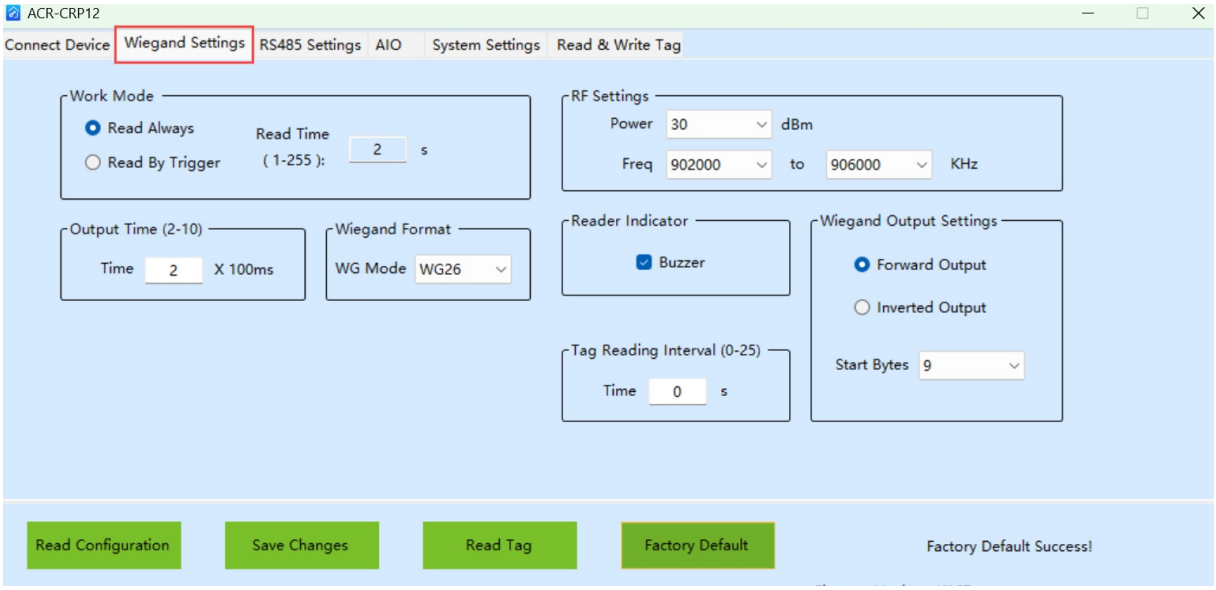
You can reset the device to the default factory settings by clicking **Factory Default** on any interface.



Wiegand Settings

The ACR-CRP12 works with Akuvox door phones and access control terminals through Wiegand. You can set up its Wiegand details.

Click **Wiegand Settings** on the upper menu. Click **Save Changes** after configuration.



- **Work Mode**: Determine whether the device reads the card automatically or upon each trigger.

- Read Always: The default option. The device automatically reads cards within its reading range.
- Read by Trigger: The device reads cards upon each trigger. When this option is selected, specify the read time.
    - Read Time: Set the read time from 1 to 255 seconds. For example, if you select 3 seconds, the device will continuously read cards in 3 seconds. The default is 2 seconds.

- **Output Time**: Set the Wiegand output interval. The default is 2×100ms.
- **Wiegand Format:** Select the Wiegand format from the available options, WG26, WG34, and WG58. The default is WG26.

Note

The Wiegand Format(Wiegand Card Reader Mode) should be consistent between the ACR-CRP12 and door phones/access control terminals for data transmission.



- **RF Settings**:
    - Power: Set the device power from 7 to 30 dBm which determines the device's card reading distance. The default is 30 dBm. Please refer to the test result. The test was conducted in an open and unobstructed place.

No.	Power	Distance
1	30dBm	20m
2	28dBm	18m
3	25dBm	15m
4	20dBm	7m
5	15dBm	5m
6	10dBm	2m
7	7dBm	1m

- Frequency: Define the frequency range for accurate UHF card reading, which covers 8 spans at most. For example, you can set the frequency from 902000 to 906000KHz but not 902000 to 906500KHz.

Concepts

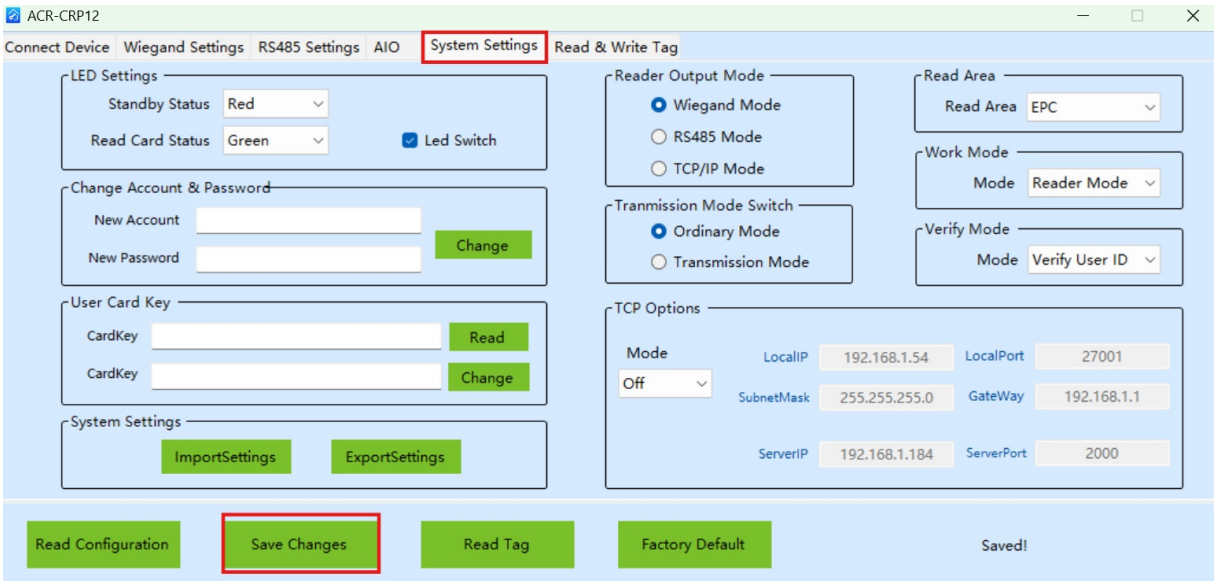
- Different types of cards operate at specific frequencies. The frequency settings directly impact the compatibility and performance of the card reader.
- The access control reader ACR-CRP12 works for Ultra High Frequency(UHF) cards operating at 860-960MHz.
- 1MHz = 1,000kHz.

- **Reader Indicator**: Set whether to sound the buzzer when the device is powered on and reads cards.
- **Tag Reading Interval**: Set the interval between reading each tag. The default is 0.
- **Wiegand Output Settings**: Set the Wiegand data output order. The default is Forward Output.
  - Forward Output: Wiegand output is in a normal order.
  - Inverted Output: Wiegand output is in a reversed order.
- **Start Bytes**: Set the start bytes of output. The default is 9.

System Settings

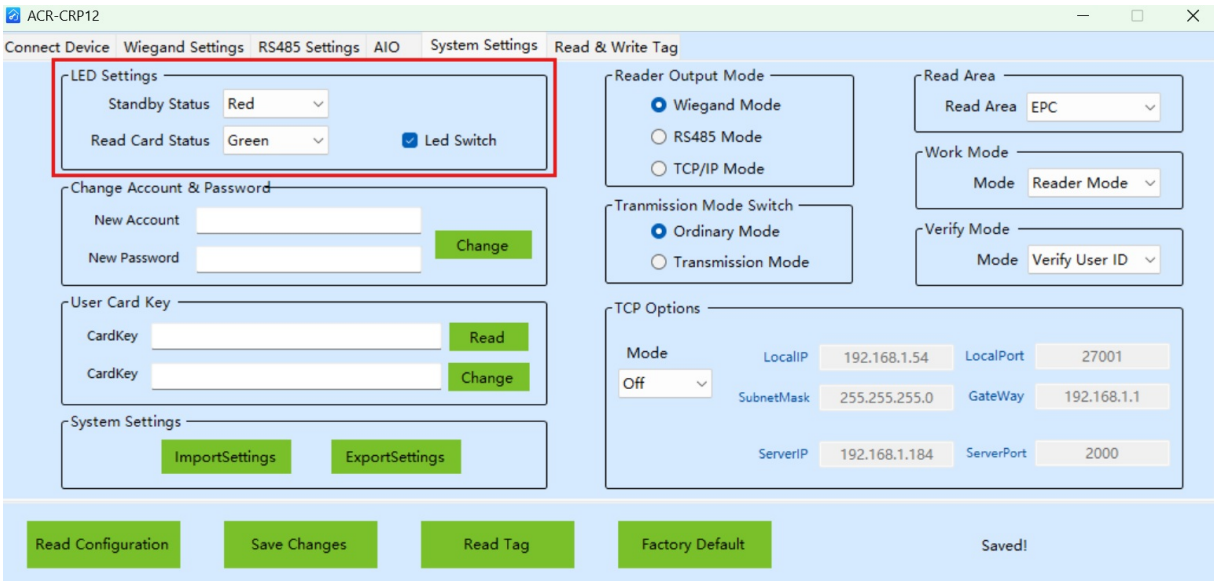
The system settings include LED settings, account and password, etc.

Click **Save Changes** after configuration.



Set up LED

You can change the device's LED when it is in Standby and Card Reading status.

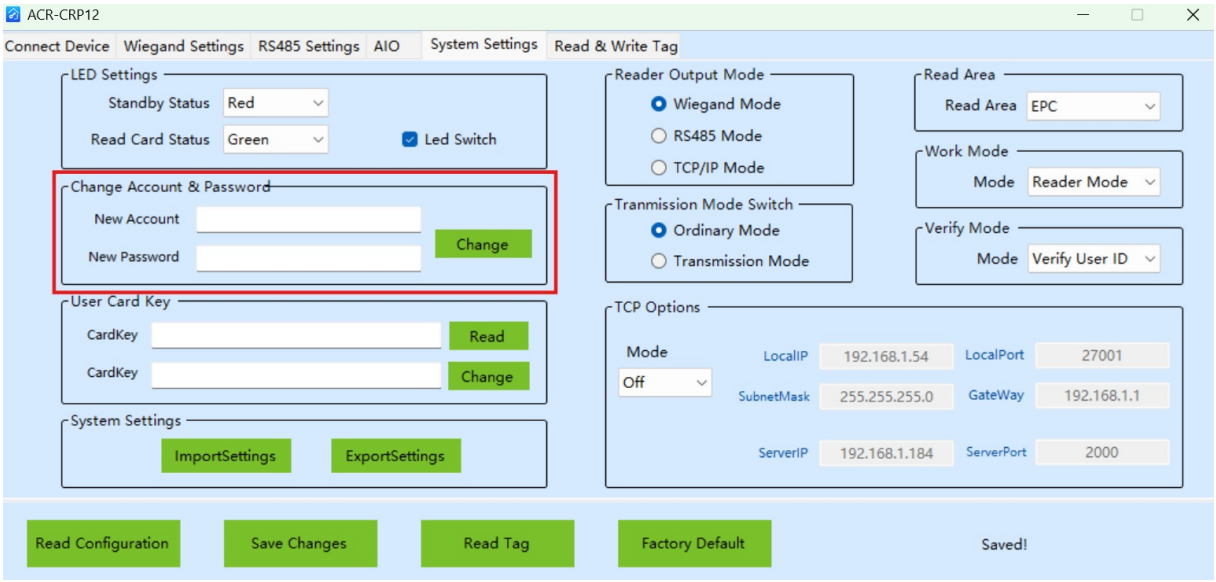


- **Standby Status**: Select from Red, Green, Blue, Yellow, Cyan, Purple, White, and Turn Off. The default is Red.
- **Read Card Status**: Select from Red, Green, Blue, Yellow, Cyan, Purple, White, and Turn Off. The default is Green.
- **LED Switch**: Enable or disable the LED indicator. It is enabled by default.

Change Account and Password

The account and password(both **admin** by default) are used to establish the connection between the ACR-CRP12 and the computer.

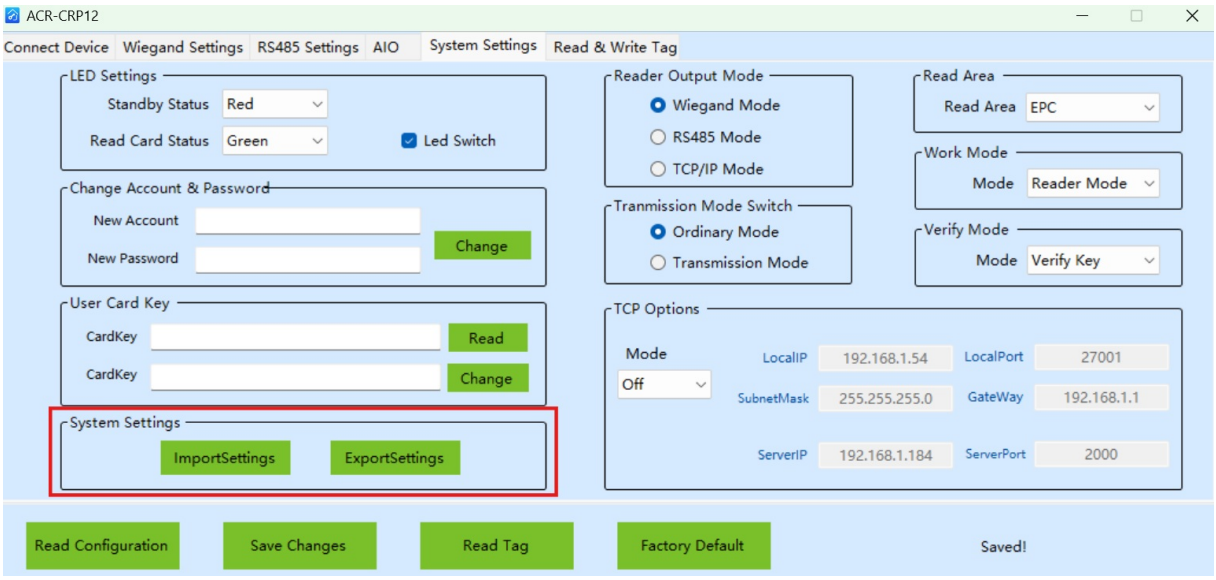
Enter the new account and password, and click **Change** to confirm it.



Import/Export System Settings

You can export the system settings and import them to another ACR-CRP12 for quick setup by clicking **ExportSettings** and **ImportSettings**.

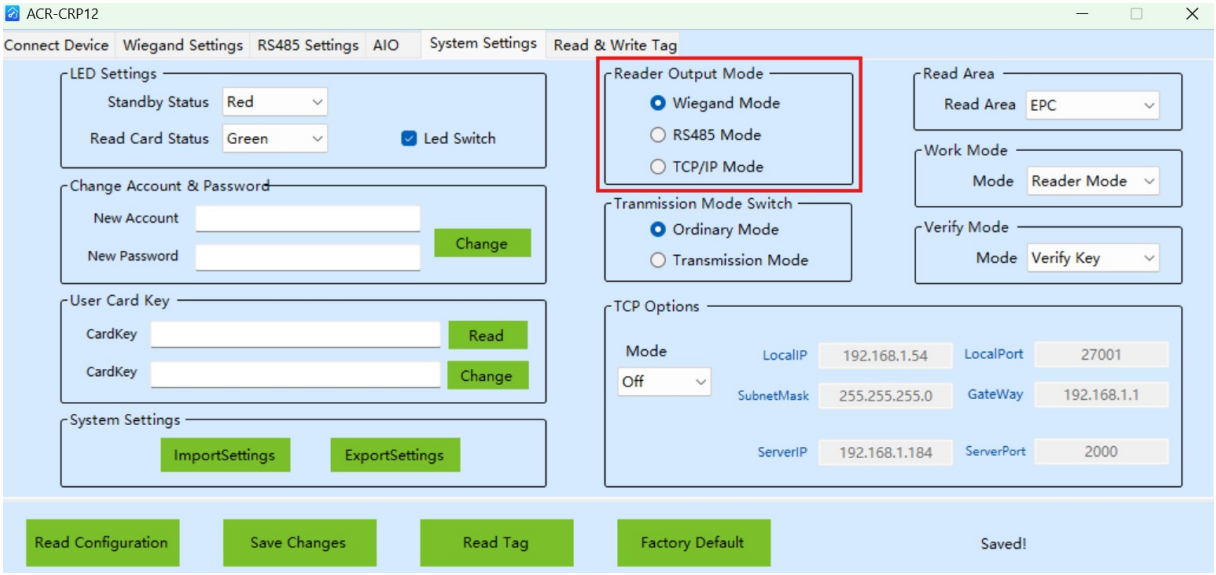
The import and export files should be in .json format.



Select Reader Output Mode

Set the data transmission mode of the device.

Select **Wiegand Mode** to make it work with Akuvox door phones and access control terminals.

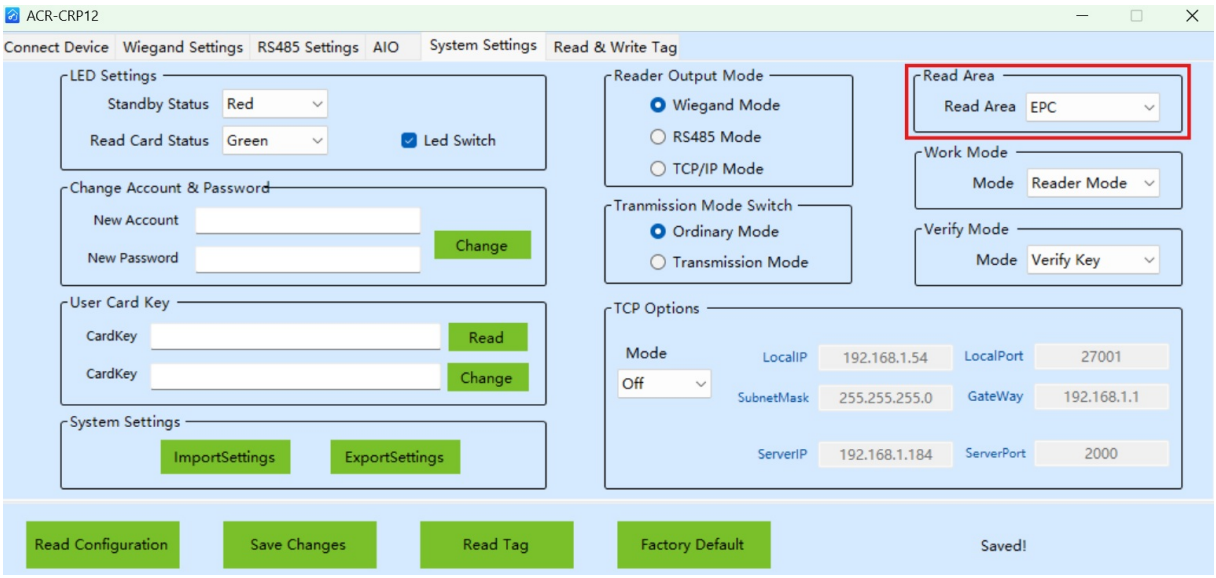


Select Reader Area

You can select certain sections of card data read by the device. It is **EPC** by default.

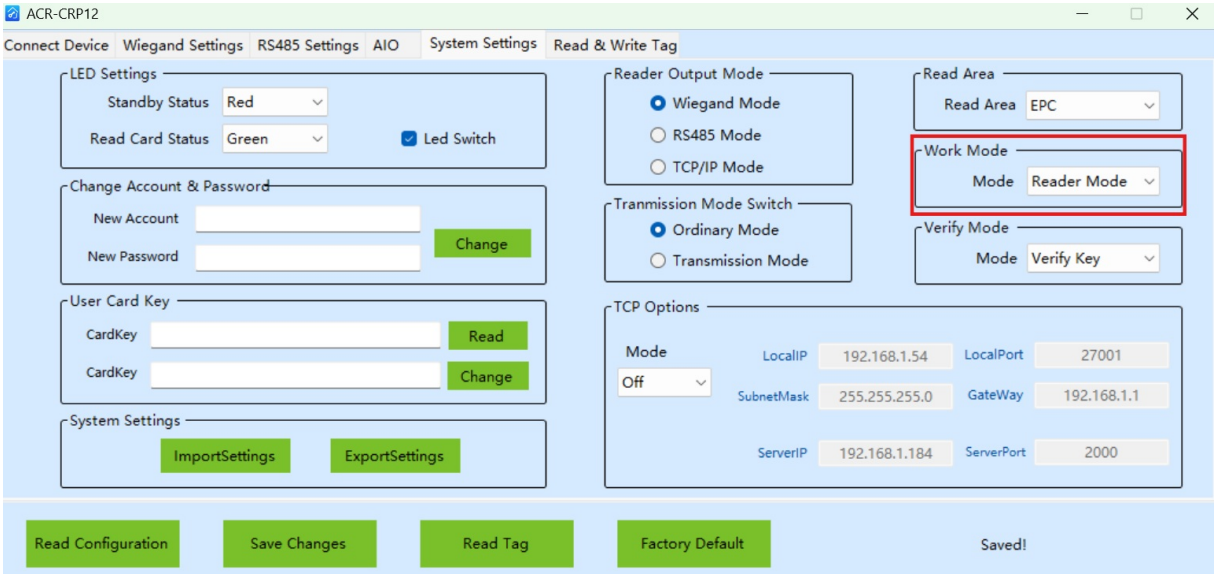
Concepts

- Electronic Product Code(EPC): a unique identifier used to identify and track individual products, typically consisting of a string of numbers and letters that provide information about the product, such as the manufacturer, product type, and serial number.
- User Area: a customizable data storage section within the card.
- Transaction Identifier(TID): a unique identifier for the card itself, typically written into the card during manufacturing and cannot be changed. It is used to identify the card, ensuring that each card is unique for authentication and tracking purposes.



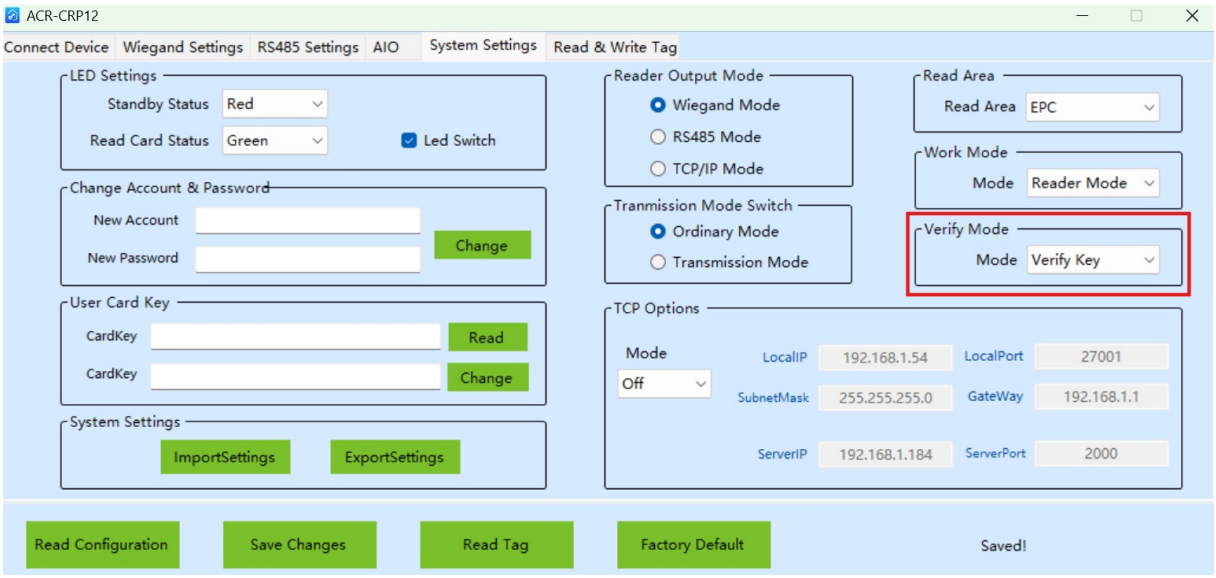
Select Work Mode

Select **Reader Mode** to make the device read and transmit card data to Akuvox door phones/access control terminals.



Select Verify Mode

- Verify User ID: No encryption validation is performed; the device directly outputs the data.
- Verify Key: Requires encryption validation for card access.



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