HRT-227CS

HART to Single Mode Fiber Converter

Quick Start User Guide

1. Introduction

This quick start manual will guide users to implement the HRT-227CS module into their applications in a quick and easy way. For the more detailed information, please refer to the user's manual in the Fieldbus_CD of ICP DAS ("CD:\hart\convert\hrt-227CS\manual\).

We will use an I-7570 module (as a HART master) to connect to one pair of HRT-227CS modules and then connect to one HART device as the example shown in Figure 1-1 and demonstrate how to use the HC_Tool utility for HART communication test.

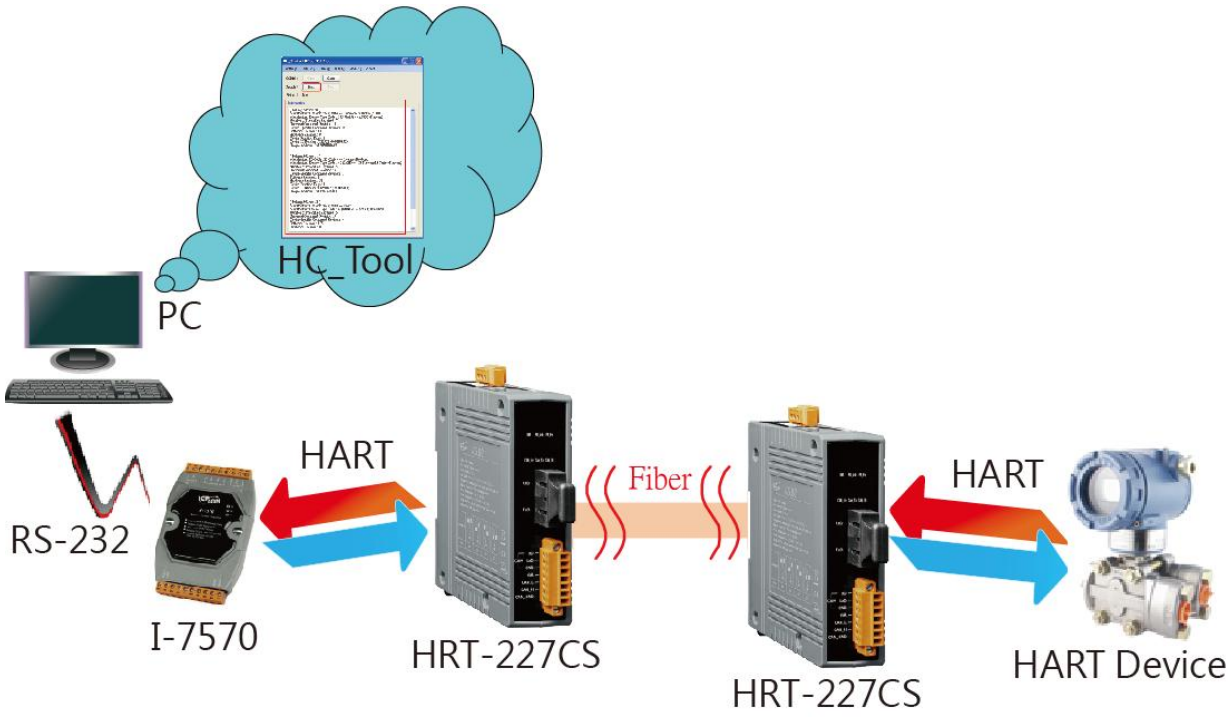


Figure 1-1: Architecture of Example

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2. Hardware Installation

Users may need to make a hardware setting before the application. The detailed illustration is as below.

[Step1: Connect the com port between PC and I-7570]

(1) Connect the com port between PC and I-7570.
(2) Set the dip switch in the backplane of I-7570 to “Normal” position.

[Step2: Connect the HART port between I-7570 and HRT-227CS]

(1) Connect the HART port between I-7570 and the first HRT-227CS.
(HART+ to HART+ / HART- to HART-)

[Step3: Connect the fiber port between these two HRT-227CS]

(1) Connect the fiber port between these two HRT-227CS.
(RxD to TxD / TxD to RxD)

[Step4: Connect HART port between HRT-227CS and HART device]

(1) Connect the HART port between the second HRT-227CS and HART device to become a standard HART network.
(2) After the connection is finished, turn on the system power.

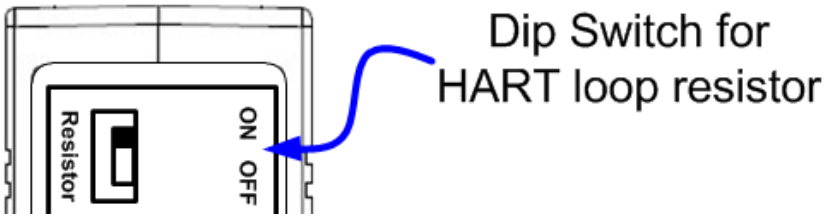
[Step5: Check the I-7570 and HRT-227CS LED]

(1) Check the PWR LED of I-7570 if it is “ON”. If yes, then I-7570 runs in the operation mode.
(2) Check the PWR LED of HRT-227CS if it is “ON” and other LEDs are “OFF”. If yes, then HRT-227CS runs in the operation mode and the fiber connection is ok.

[Step6: Enable the Loop Resistor of HRT-227CS]

(1) Set the dip switch for loop resistor of these two HRT-227CS to the “ON” position.

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3. Using HC_Tool Utility

Step1: Run the ”**HC_Tool**” utility and click the “Settings” item like Figure 3-1 to configure the serial connection and HART command parameters.

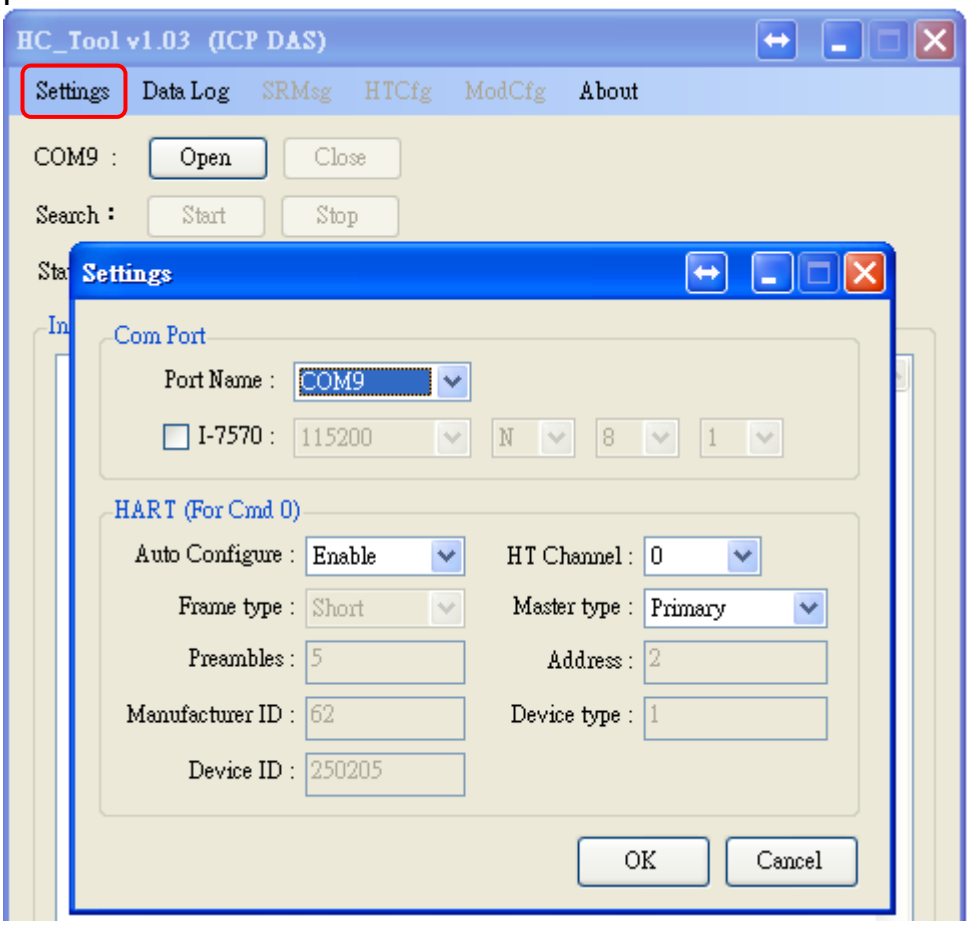


Figure 3-1**:** “Settings” function of HC_Tool

Step2: Set the “Port Name” and “Auto Configure“ parameters like Figure 3-2.

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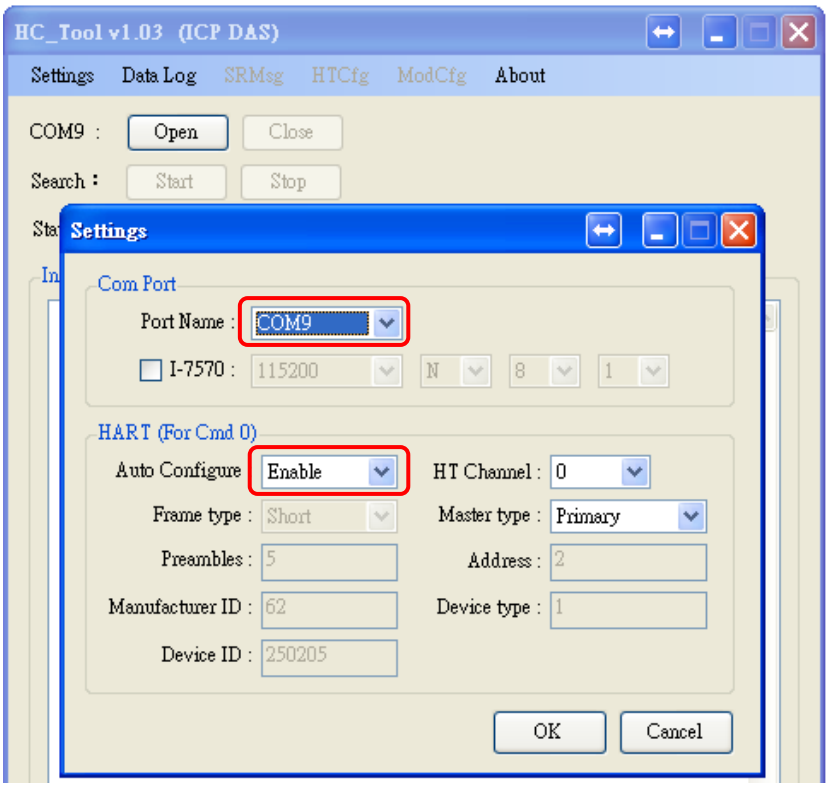


Figure 3-2**:** Set Com Port and HART Command Parameter

Step3: Click “Open” button to open the com port of PC like Figure 3-3.

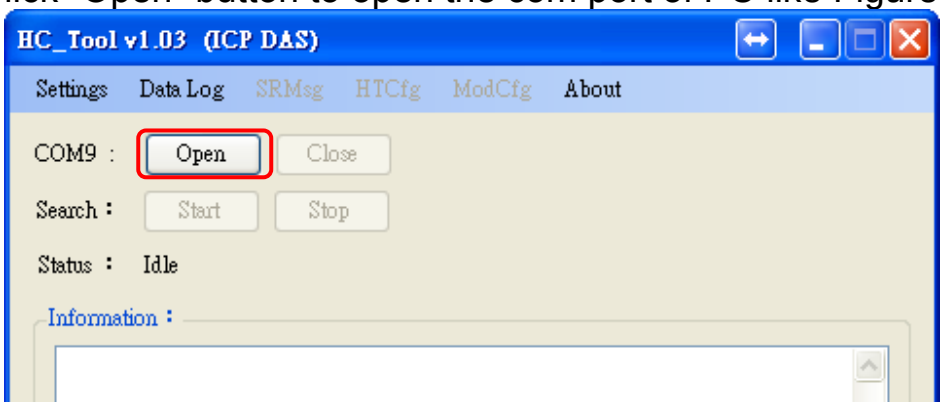


Figure 3-3**:** Click the “Open” button

Step4: Click “Start” button to search all HART devices and the result will be shown in the ”Information” field like Figure 3-4. If it shows the “Search Device Success” message, it means that the HART communication works well.

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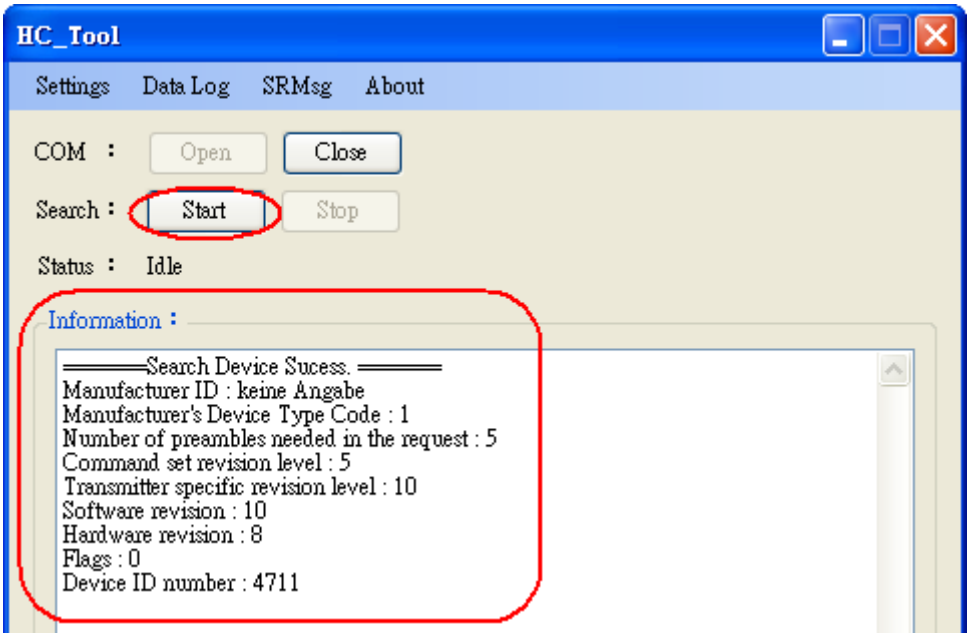


Figure 3-4**:** HART device Information

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