I-7570

Serial to HART Converter

Quick Start User Guide

1. Introduction

This quick start manual will guide users to implement the I-7570 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\i-7570\manual\i-7570_usermanual.pdf") for detail.

We will use an I-7570 module (as a HART master), one HART slave and one PC as the example shown in Figure 1-1 and demonstrate how to use the I-7570 utility for I-module configuration and HART communication test.

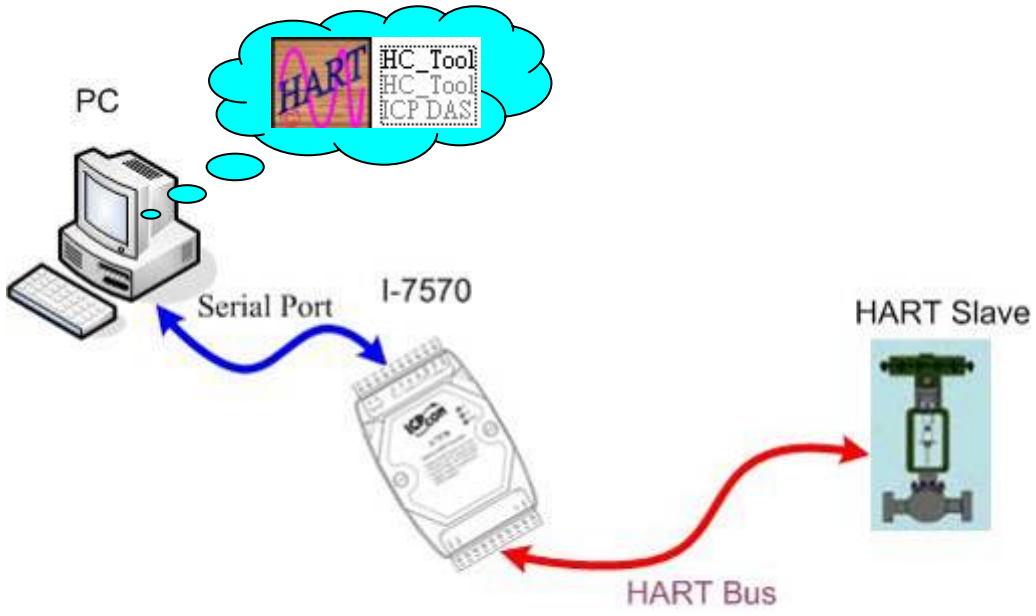


Figure 1-1: Architecture of Example

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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 Serial port & Set FW Operation Mode]

Connect the serial port of the I-7570 to PC and set the dip-switch on the back of I-7570 to the “Normal” position. Then turn on the I-7570 module power.

[Step2: Check the LED Indication I-7570]

Check the PWR LED of I-7570 if it is always on. If yes, it means I-7570 is working in the “Firmware Operation” mode.

Mode / LED Name	Power off	FW Update	FW Operation	Serial Port Data Received	HART Port Data Received
PWR LED	off	flash	on	on	on
TxD LED	off	flash	off	flash	off
RxD LED	off	flash	off	off	flash

[Step3: Enable or Disable the Terminator Resistor]

There is a Jumper (JP4) at the I-7570 module, shown in Figure 2-1. The jumper can provide HART network with 250 Ω (1/4 W) load resistor. When the pin 1&2 of JP4 is connected, the resistor will connect to HART network. When the pin 2&3 ofJP4 is connected, it will disconnect the resistor from HART network. By default, the pin1&2 of JP4 is connected.

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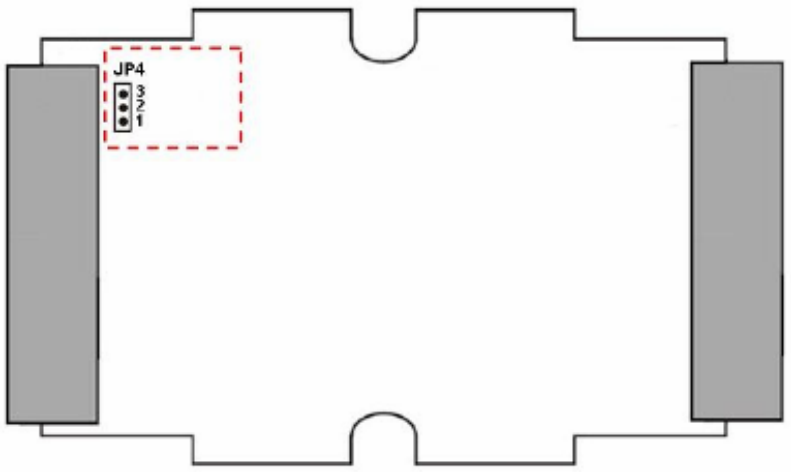


Figure 2-1: Terminator Resistor

[Step4: HART bus connection]

Connect the HART port of the I-7570 to HART Device.

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3. Using I-7570 Utility

Step1: Turn on the power of I-7570, if the PWR LED of the I-7570 is always on, then it means the I-7570 converter is working in the "Firmware Operation" mode.

Step2: Run the "I-7570 Utility", **HC_Tool**, and click the "Settings" item like Figure 3-1 to configure the serial connection and HART command parameters.

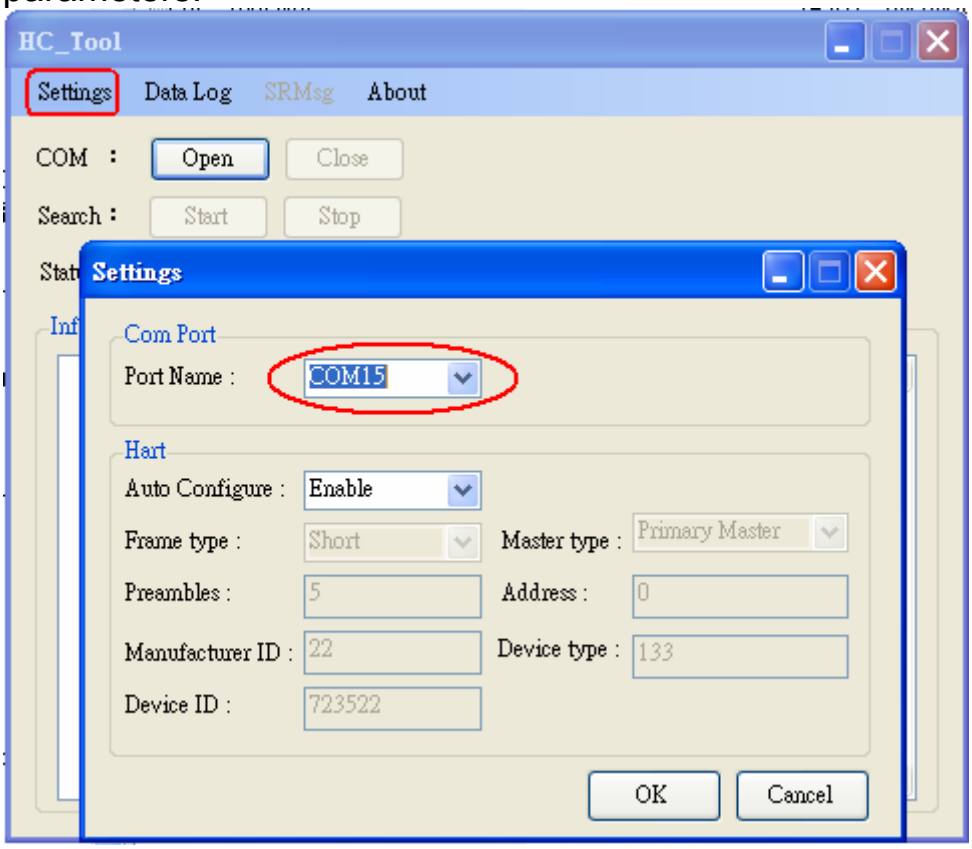


Figure 3-1: "Settings" function of HC_Tool

Step3: 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

Step4: Click “Open” button to open the com port of PC like Figure 3-3.

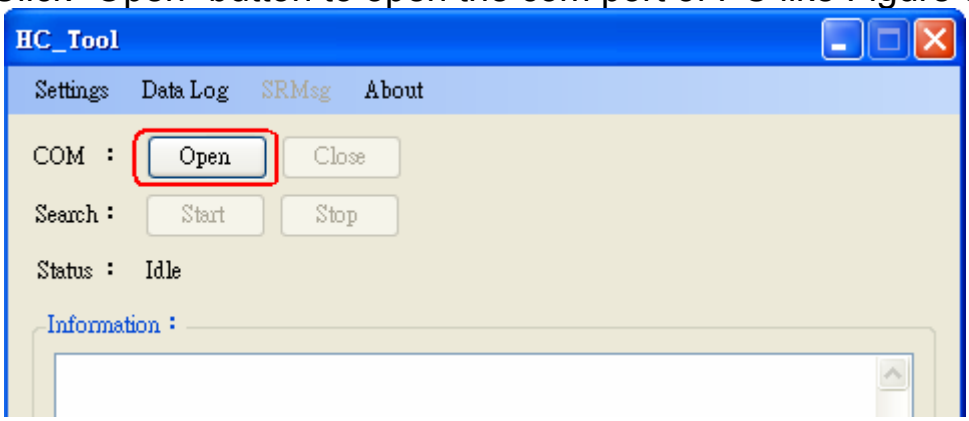


Figure 3-3**:** Click the “Open” button

Step5: Click “Start” button to search all HART devices and the result will be shown in the ”Information” field like Figure 3-4.

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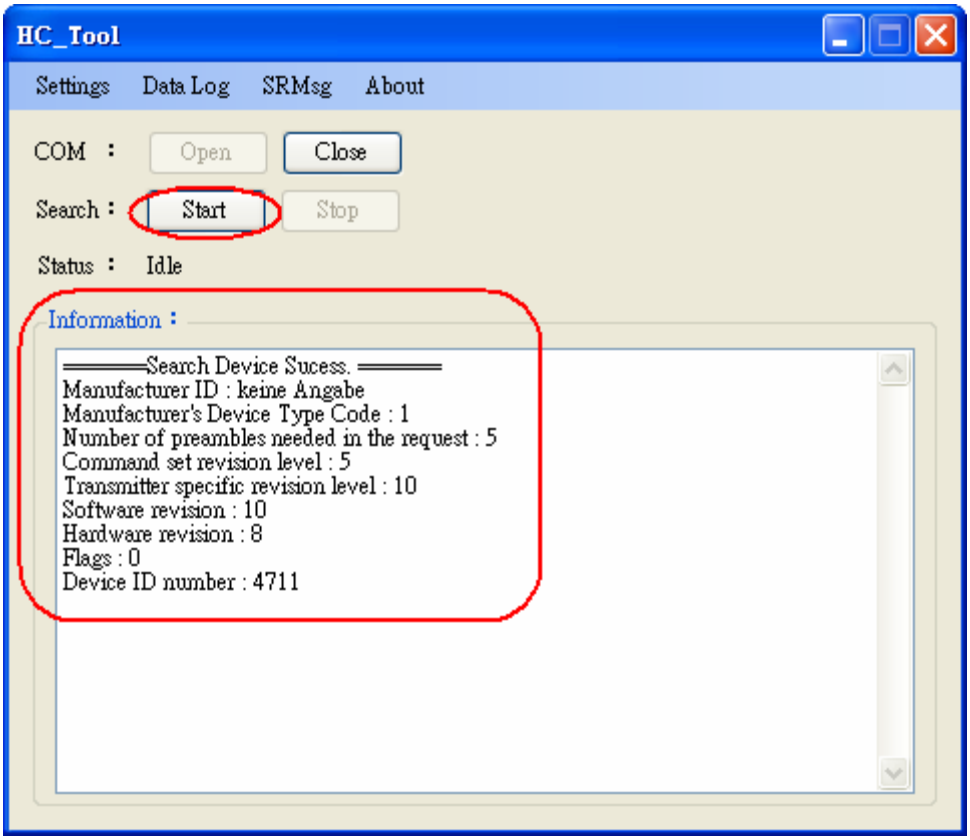


Figure 3-4: HART device Information

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