iDCS
HART Utility

Version 1.0.0 Dec. 2023

Warranty

All products manufactured by ICP DAS are under warranty regarding defective materials for a period of one year, beginning from the date of delivery to the original purchaser.

Warning!

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Contents

1. iDCS HART Utility

1.1. Introduction

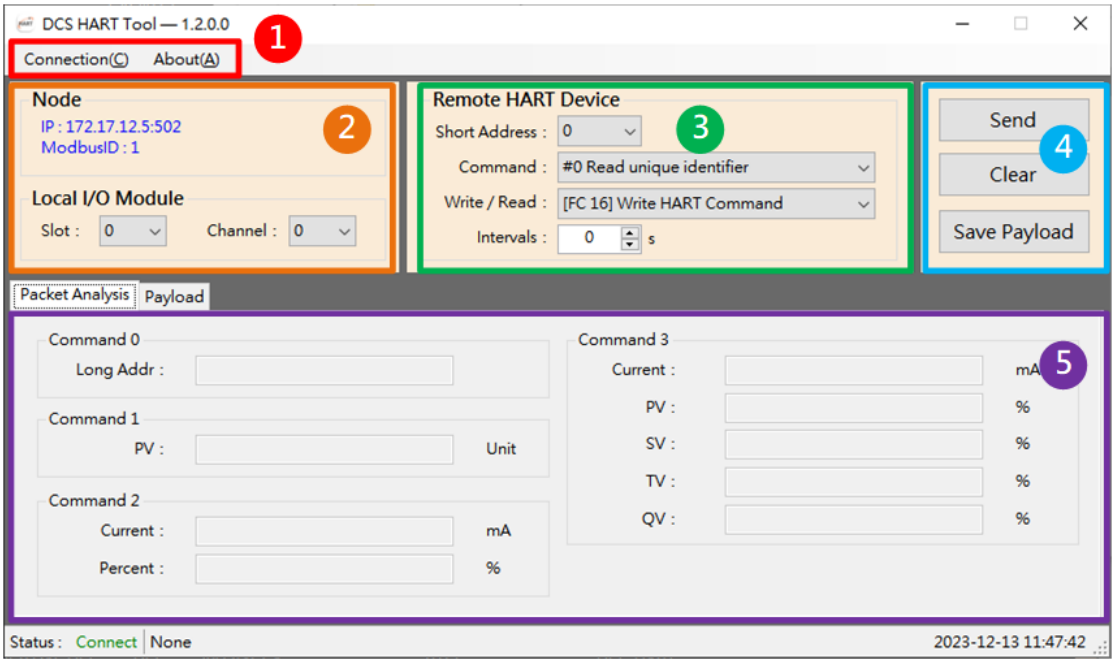
This chapter describes how to use the iDCS HART Utility tool software developed by ICP DAS. This tool software needs to be used with the redundant I/O system of ICP DAS (such as iDCS-8830). This tool is installed on the PC, reads the data of the redundant I/O system through Ethernet, and displays the read values on the screen. Provide on-site engineers with further testing of I/O modules with HART functions in redundant I/O systems.

Currently, ICP DAS's redundant I/O system provides an Ethernet physical communication interface. When users connect to ICP DAS's redundant I/O system through the Ethernet interface, they need to use the network cable and correctly set the system IP related information to obtain the data of the redundant I/O system.

Software features are as follows:

- Connect to ICP DAS redundant I/O system via Modbus TCP protocol
- Provides commonly used HART Command options (Command 0~3)
- Provide once and loop modes
- Can display analyzed subcontracting content
- Can display original packet information
- Provide data recording function

1.2. User interface introduction

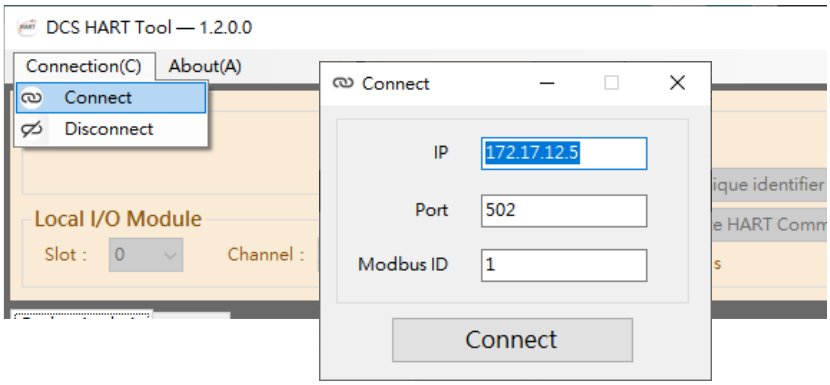


1. **[Tool bar]:**
   Connection and About
2. **[Local Information]:**
   Display local module IP and Modbus ID
3. **[Remote Information]:**
   Provides command options for connecting HART
4. **[Operating Area]:**
   Command transmission, clearing and packet storage functions
5. **[Message Display]:**
   View information related to HART devices in this block

[Tool bar]

[Connection]:

Select connection, you need to fill in the corresponding parameters to connect.



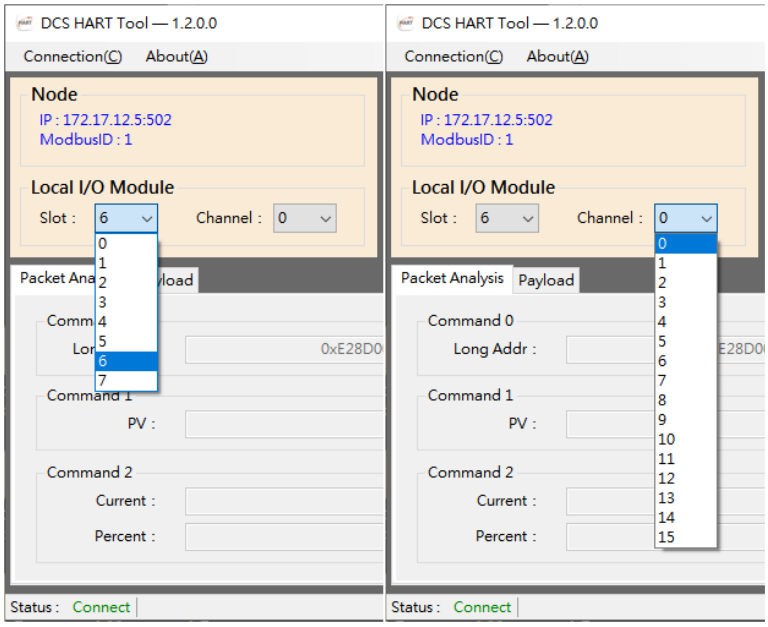
[Local Information]

[Node]:

In the successful connection state, the IP and Modbus ID of the redundant I/O system are displayed here.

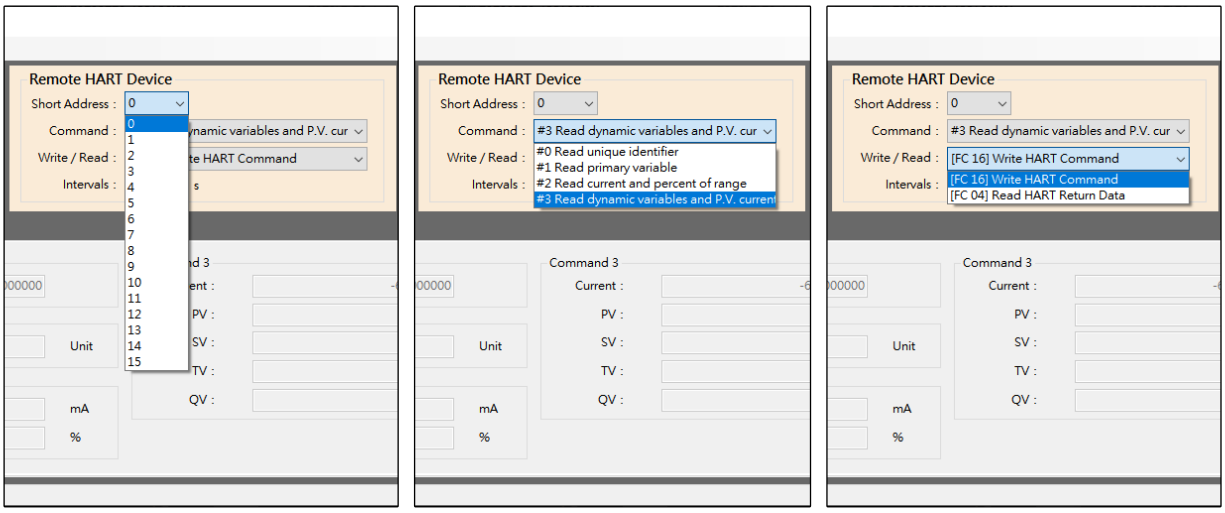
[Local I/O Module]:

Select the Slot and Channel where the I/O module to transmit HART commands is located.



[Remote Information]

Provides Short Address, Command0~3, Write/Read and Intervals settings.



Note: When the Intervals value is greater than 0, the software will send commands cyclically.

[Operating Area]

[Send]:

Send a packet (when the Intervals value is greater than 0, it is also a stop button)

[Clear]:

Clear the data in the message display field and packet display field.

[Save Payload]:

Save packet content as Notepad (.txt)

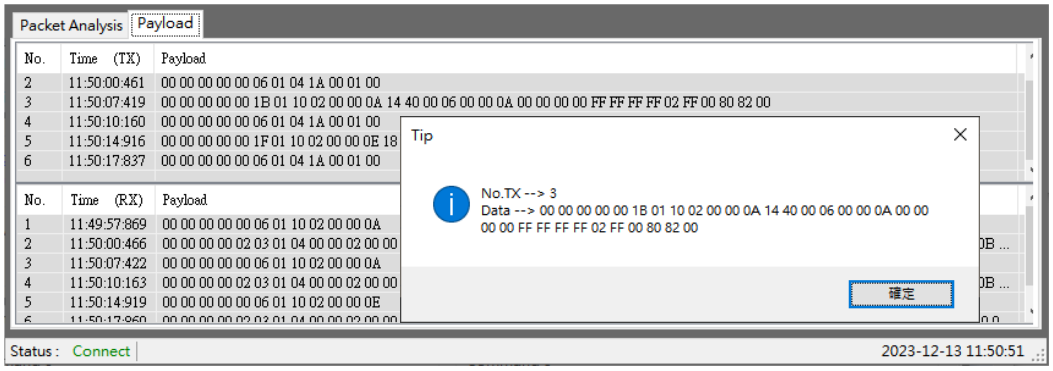
[Message Display]

[Packet Analysis]:

Displays the analyzed packet contents.

[Payload]:

Displays the original packet sent by Ethernet. Double-click the target row to automatically copy it to the clipboard.



2. FAQ

3. Revision History

Revision	Date	Description of Change
1.00	2023/12/13	Document release.