

### T5L screen ModBus communication

- 1: The ModBus protocol is executed on the serial port 4 of the T5L screen.
- 2: The ModBus of T5L screen can be configured as master or slave.
- 3: The protocol is compatible with Ascii and RTU formats (ascii is not supported yet).
- 4: The command format is divided into standard format and clock format.
- 5: When configured as a host, the command has the function of automatic reissue.
- 6: There are 5 ways to trigger sending when configured as a host.
- 7: The maximum read and write data length is 64 words (128 bytes).
- 8: The maximum number of instructions is 255.
- 9: Support command 0X01,0X02,0X03,0X04,0X05,0X06,0X10.
- 10: When the host is powered on, it will automatically send the data configured in the 0x10 command (initialize the slave).
- 11: The 70-word variable address starting from the last instruction of the configured file No. 22 is occupied.
- 12: Timer T1 is occupied.
- 13: The seventh page of the register is occupied.

### Definition of system variable interface for ModBus communication of DWIN screen

The system variable interface definition occupies 16 bytes starting from 0x0088.

0x0088H: 0x5A = Start a configuration.

0x0088L: 0xA5= enabled (enabled by default) Modbus, Other = Not enabled

0x0089: Edit the start (word) address of the instruction in file No. 22 (default 0xE000).

0x008AH: Edit the number of instructions in file No. 22, each with 8 characters (255 by default).

0x008AL: 0x00=Configure as host, RTU data format (default 0X00).

0x01=configure as host, ascii data format.

0x02=Configure as a master (RTU), and the response data of the slave includes a clock.

0x03=Configure as a master (ascii), and the response data of the slave includes a clock.

0x04=Configure as slave, RTU data format.

0x05=Configure as slave, ascii data format.

0x008BH: When the slave does not respond or responds incorrectly, the number of reissues of this command (default 5 times).

0x008BL: The delay time from the execution of this instruction to the sending of the next instruction (default 100ms).

0x008CH: ID when configured as a slave (default 01).

0x008CL: Verify configuration (default 40=serial port 4, 8N1).

0x008D: Baud rate configuration (default 2688, 25804800/9600=2688=0x0A80).

0x008EH: Fault code of the communication process.

0x008EL: When configured as a host, the serial number of the currently executed command in file No. 22

0x008F: spare

### System variable interface configuration example

5A,A5,E000,FF, 00,05,64,01,40,0A80, 00, 00, 00, 00.

0x0088H=0x5A: 0x5A=Enable Modbus configuration, cleared after configuration.

0x0088L=0xA5: 0xA5=Enable Modbus communication

0x0089=0xE000: In file No. 22, the starting (word) address of the first instruction = 0xE000

0x008AH=0xFF: Edited 255 instructions (1-255) in document 22.

0x008AL=0x00: 0x00= configure as host, RTU data format (0-5).

0x008BH=0x05: If the slave does not respond or the response is received incorrectly, the master reissues the current command, and the upper limit of reissue is 5 times (0-255).

0x008BL=0x64: Delay time between commands=0x64=100mS(0-255).

0x008CH=0x01: The communication ID assigned when configured as a slave = 0x01 (0x01-0x7F).

0x008CL=0x40: 0x00=8N1, 0x01= 8E1, 0x02=8O1,0x03=8N2.

0x008D=0x0A80: 25804800/(0A80)2688=9600 baud rate (T5L).

0x008EH=0x00: Error code during communication (read only).

0x008EL=0x00: When configured as a master, the serial number of the currently executed command in file No. 22 will be updated only after the slave responds correctly (read-only).

0x008F: spare .

## Example of edit configuration format for directives in document 22

Example:                      5A 01 03 06 02 01 00 02 10 00 00 01

D0: 0x5A=execute this instruction, others=do not execute this instruction.

D1: The ID number of the slave to be operated (01H).

D2: Command (03H) (0x01, 0x02, 0x03, 0x04, 0x05, 0x06, 0x10).

D3: The length of the operation data of this instruction (06H) (03H, 04H, 06H, 10H are counted by word).

D4: Receive timeout (2mS). (2~255)

D5: The way to trigger the instruction to execute and send (0-4)

0x00= Execute unconditionally.

0x01= Execute under the page specified by D6.D7.

0x02= Execute when the key value specified by D6.D7 is not zero, and the key value will be cleared after the command is executed.

0x03= In the 0x06 command, when the value of the variable pointed to by D8.D9 is non-zero, it is automatically sent.

After the communication is completed, clear the value of the specified variable in D8.D9

0x04= In 0x05,0x06;0x10 command, it will be sent automatically when the specified variable of D8.D9 changes.

D6.D7: When D5=0, no configuration is required.

When D5=1, the configuration is page number (0002).

When D5=2, it is configured as the key address for trigger sending.

When D5=3, no configuration is required.

When D5=4, no configuration is required.

D8.D9: This instruction operates on the source variable address or starting address (1000H) allocated in the DGUS screen.

D10.D11: The slave address point table (0001H) operated by this instruction.

D12.D13.D14.D15: undefined.

This instruction is for the screen as the master to read the data of 6 consecutive words in the point table starting from 0x0001 of the slave (id=0x01) to the address 0x1000\_0x1005 of the screen for display.

## T5L screen bit definition Area 1 (256bit display area)

0x0100

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 015 | 014 | 013 | 012 | 011 | 010 | 009 | 008 | 007 | 006 | 005 | 004 | 003 | 002 | 001 | 000 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0101

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 031 | 030 | 029 | 028 | 027 | 026 | 025 | 024 | 023 | 022 | 021 | 020 | 019 | 018 | 017 | 016 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0102

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 047 | 046 | 045 | 044 | 043 | 042 | 041 | 040 | 039 | 038 | 037 | 036 | 035 | 034 | 033 | 032 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0103

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 063 | 062 | 061 | 060 | 059 | 058 | 057 | 056 | 055 | 054 | 053 | 052 | 051 | 050 | 049 | 048 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0104

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 079 | 078 | 077 | 076 | 075 | 074 | 073 | 072 | 071 | 070 | 069 | 068 | 067 | 066 | 065 | 064 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0105

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 095 | 094 | 093 | 092 | 091 | 090 | 089 | 088 | 087 | 086 | 085 | 084 | 083 | 082 | 081 | 080 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0106

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 111 | 110 | 109 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 100 | 099 | 098 | 097 | 096 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0107

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 127 | 126 | 125 | 124 | 123 | 122 | 121 | 120 | 119 | 118 | 117 | 116 | 115 | 114 | 113 | 112 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0108

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 143 | 142 | 141 | 140 | 139 | 138 | 137 | 136 | 135 | 134 | 133 | 132 | 131 | 130 | 129 | 128 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0109

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 159 | 158 | 157 | 156 | 155 | 154 | 153 | 152 | 151 | 150 | 149 | 148 | 147 | 146 | 145 | 144 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x010A

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 175 | 174 | 173 | 172 | 171 | 170 | 169 | 168 | 167 | 166 | 165 | 164 | 163 | 162 | 161 | 160 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x010B

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 191 | 190 | 189 | 188 | 187 | 186 | 185 | 184 | 183 | 182 | 181 | 180 | 179 | 178 | 177 | 176 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x010C

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 207 | 206 | 205 | 204 | 203 | 202 | 201 | 200 | 199 | 198 | 197 | 196 | 195 | 194 | 193 | 192 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x010D

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 223 | 222 | 221 | 220 | 219 | 218 | 217 | 216 | 215 | 214 | 213 | 212 | 211 | 210 | 209 | 208 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x010E

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 239 | 238 | 237 | 236 | 235 | 234 | 233 | 232 | 231 | 230 | 229 | 228 | 227 | 226 | 225 | 224 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x010F

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 255 | 254 | 253 | 252 | 251 | 250 | 249 | 248 | 247 | 246 | 245 | 244 | 243 | 242 | 241 | 240 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

Usually cooperate with DWIN screen display control and bit variable icon control.

## T5L screen bit definition Zone 2 (256bit keypad)

0x0110

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 015 | 014 | 013 | 012 | 011 | 010 | 009 | 008 | 007 | 006 | 005 | 004 | 003 | 002 | 001 | 000 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0111

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 031 | 030 | 029 | 028 | 027 | 026 | 025 | 024 | 023 | 022 | 021 | 020 | 019 | 018 | 017 | 016 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0112

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 047 | 046 | 045 | 044 | 043 | 042 | 041 | 040 | 039 | 038 | 037 | 036 | 035 | 034 | 033 | 032 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0113

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 063 | 062 | 061 | 060 | 059 | 058 | 057 | 056 | 055 | 054 | 053 | 052 | 051 | 050 | 049 | 048 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0114

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 079 | 078 | 077 | 076 | 075 | 074 | 073 | 072 | 071 | 070 | 069 | 068 | 067 | 066 | 065 | 064 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0115

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 095 | 094 | 093 | 092 | 091 | 090 | 089 | 088 | 087 | 086 | 085 | 084 | 083 | 082 | 081 | 080 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0116

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 111 | 110 | 109 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 100 | 099 | 098 | 097 | 096 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0117

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 127 | 126 | 125 | 124 | 123 | 122 | 121 | 120 | 119 | 118 | 117 | 116 | 115 | 114 | 113 | 112 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0118

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 143 | 142 | 141 | 140 | 139 | 138 | 137 | 136 | 135 | 134 | 133 | 132 | 131 | 130 | 129 | 128 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x0119

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 159 | 158 | 157 | 156 | 155 | 154 | 153 | 152 | 151 | 150 | 149 | 148 | 147 | 146 | 145 | 144 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x011A

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 175 | 174 | 173 | 172 | 171 | 170 | 169 | 168 | 167 | 166 | 165 | 164 | 163 | 162 | 161 | 160 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x011B

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 191 | 190 | 189 | 188 | 187 | 186 | 185 | 184 | 183 | 182 | 181 | 180 | 179 | 178 | 177 | 176 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x011C

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 207 | 206 | 205 | 204 | 203 | 202 | 201 | 200 | 199 | 198 | 197 | 196 | 195 | 194 | 193 | 192 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x011D

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 223 | 222 | 221 | 220 | 219 | 218 | 217 | 216 | 215 | 214 | 213 | 212 | 211 | 210 | 209 | 208 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x011E

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 239 | 238 | 237 | 236 | 235 | 234 | 233 | 232 | 231 | 230 | 229 | 228 | 227 | 226 | 225 | 224 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

0x011F

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 255 | 254 | 253 | 252 | 251 | 250 | 249 | 248 | 247 | 246 | 245 | 244 | 243 | 242 | 241 | 240 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

Example: The 50# button address configuration of DWIN screen is sent, query the 03bit of the corresponding variable address 0x0113 through the above table, and cooperate with the touch control incremental adjustment setting of DWIN screen as shown in the figure below.

The screenshot shows a configuration window for a 50# button. At the top, 'VP (0x)' is set to '0113'. Below this, there are radio buttons for 'Int' and 'Bit', with 'Bit' selected. Under 'Bit', there are radio buttons for 'High Byte' and 'Low Byte', both unselected. To the right of these is a 'Bit num(0x)' field with a value of '3'. Below the radio buttons, there is an 'Adjust method' dropdown set to '++'. Below that is an 'Over limit Operation' dropdown set to 'Cycle'. Then, 'Adjusting step length' is a numeric field set to '1'. Below that, 'Lower limit' is a numeric field set to '0'. Then, 'Upper limit' is a numeric field set to '1'. Finally, 'Touch effect' is a dropdown set to 'Constant Setting'.

Command description:

- 1: 06H, 10H are standard command formats.
- 2: 03H, 04H command with or without clock, and without clock is the standard format.
- 3: 03H, 04H with a clock will add a 6-byte clock before the check code after the returned data.
- 4: The format of the clock attached to 03H and 04H is year, month, day, hour, minute, second (hex).
- 5: The read length of 01H and 02H commands is fixed at 16bit.
- 6: The corresponding relationship between bit variable addresses and variables in 01H, 02H, 05H instructions can be queried according to the above table.
- 7: Modification of default configuration

Open DWINOS\_DWIN\_T5L\_ModBusV2.bin with UltraEdit-32

Find the first line of data (starting with a non-zero segment) and download after modifying the mark

position. 

|            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 00001080h: | 26 | 04 | 23 | 00 | 26 | 04 | 2D | 00 | 27 | 00 | 04 | 21 | 03 | 0A | 5A | A5 |
| 00001090h: | 03 | 0C | E0 | 00 | 03 | 0E | FF | 00 | 03 | 10 | 05 | 64 | 03 | 12 | 01 | 40 |
| 000010a0h: | 03 | 14 | 0A | 80 | 03 | 00 | 00 | 88 | 01 | 0A | 00 | 06 | 00 | 00 | 00 | 00 |

Note: E000 means to edit the first entry from E000H (word address) 1C000 (byte address) of No. 22 file

FF00 FF means maximum 255 pieces 0x00=Configure as host, RTU data format

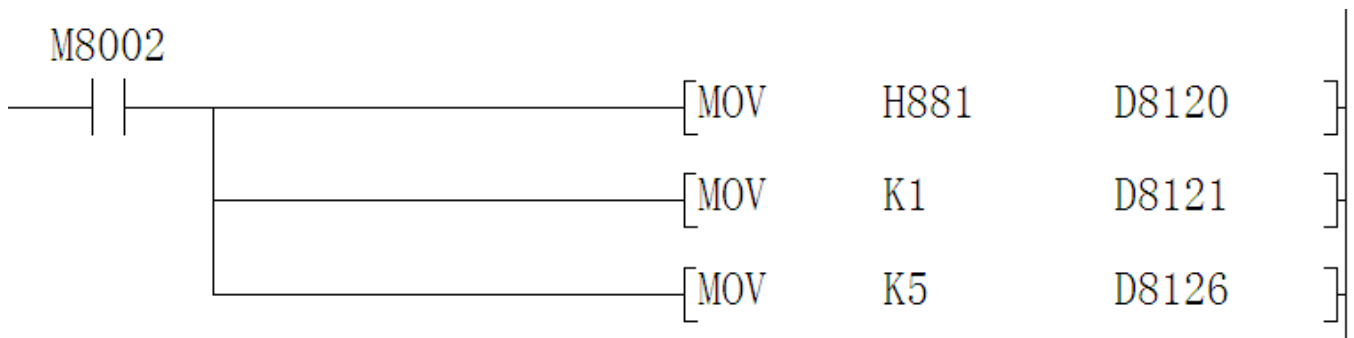
0564 The upper limit of reissuing the current command is 5 times, 64=the delay time between commands is 100ms.

0140 01 ID 40 when configured as a slave, high 4bit=4 low 4bit=0, enable serial port 4, 8N1.

0A80H=2688                      25804800/2688=9600 baud rate.

Mitsubishi PLC as a slave modbus communication example

Add the following ladder line to the PLC to enable MODBUS



## 五、 从站元件地址

| 位元件 | 地址 | 位元件 | 地址 | 位元件 | 地址  | 位元件 | 地址  | 位元件                                                                                                                                                                                                                                                                                         | 地址        |
|-----|----|-----|----|-----|-----|-----|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| X0  | 0  | X40 | 32 | Y0  | 300 | Y40 | 332 | S0-S999                                                                                                                                                                                                                                                                                     | 1000-1999 |
| X1  | 1  | X41 | 33 | Y1  | 301 | Y41 | 333 | T0-T255                                                                                                                                                                                                                                                                                     | 2000-2255 |
| X2  | 2  | X42 | 34 | Y2  | 302 | Y42 | 334 | C0-C255                                                                                                                                                                                                                                                                                     | 3000-3255 |
| X3  | 3  | X43 | 35 | Y3  | 303 | Y43 | 335 |                                                                                                                                                                                                                                                                                             |           |
| X4  | 4  | X44 | 36 | Y4  | 304 | Y44 | 336 | M0-M3071; FX2N                                                                                                                                                                                                                                                                              | 4000-7071 |
| X5  | 5  | X45 | 37 | Y5  | 305 | Y45 | 337 |                                                                                                                                                                                                                                                                                             |           |
| X6  | 6  | X46 | 38 | Y6  | 306 | Y46 | 338 | 字元件                                                                                                                                                                                                                                                                                         | 地址        |
| X7  | 7  | X47 | 39 | Y7  | 307 | Y47 | 339 | D0-D5999                                                                                                                                                                                                                                                                                    | 0-5999    |
| X10 | 8  | X50 | 40 | Y10 | 308 | Y50 | 340 | T0-T255                                                                                                                                                                                                                                                                                     | 8000-8255 |
| X11 | 9  | X51 | 41 | Y11 | 309 | Y51 | 341 | C0-C255                                                                                                                                                                                                                                                                                     | 8300-8555 |
| X12 | 10 | X52 | 42 | Y12 | 310 | Y52 | 342 | <b>通讯参数:</b><br>1、通讯参数见上面 D8120 设置;<br>2、检验: N 或 0 或 E;<br>3、数据位: 8 或 7;<br>4、停止位: 1 或 2;<br>5、ID 在 D8121 设置 (1~255);<br><br><b>MODBUS-RTU 命令:</b><br>1、读位操作指令: 1, 2;<br>2、写位操作指令: 5;<br>3、读寄存器指令: 3, 4;<br>4、写寄存器指令: 6;<br>5、写多位寄存器指令: 16 (H10)<br><br><b>注意:</b><br>一次可以写入与读取的寄存器最多 64 个; |           |
| X13 | 11 | X53 | 43 | Y13 | 311 | Y53 | 343 |                                                                                                                                                                                                                                                                                             |           |
| X14 | 12 | X54 | 44 | Y14 | 312 | Y54 | 344 |                                                                                                                                                                                                                                                                                             |           |
| X15 | 13 | X55 | 45 | Y15 | 313 | Y55 | 345 |                                                                                                                                                                                                                                                                                             |           |
| X16 | 14 | X56 | 46 | Y16 | 314 | Y56 | 346 |                                                                                                                                                                                                                                                                                             |           |
| X17 | 15 | X57 | 47 | Y17 | 315 | Y57 | 347 |                                                                                                                                                                                                                                                                                             |           |
| X20 | 16 | X60 | 48 | Y20 | 316 | Y60 | 348 |                                                                                                                                                                                                                                                                                             |           |
| X21 | 17 | X61 | 49 | Y21 | 317 | Y61 | 349 |                                                                                                                                                                                                                                                                                             |           |
| X22 | 18 | X62 | 50 | Y22 | 318 | Y62 | 350 |                                                                                                                                                                                                                                                                                             |           |
| X23 | 19 | X63 | 51 | Y23 | 319 | Y63 | 351 |                                                                                                                                                                                                                                                                                             |           |
| X24 | 20 | X64 | 52 | Y24 | 320 | Y64 | 352 |                                                                                                                                                                                                                                                                                             |           |
| X25 | 21 | X65 | 53 | Y25 | 321 | Y65 | 353 |                                                                                                                                                                                                                                                                                             |           |
| X26 | 22 | X66 | 54 | Y26 | 322 | Y66 | 354 |                                                                                                                                                                                                                                                                                             |           |
| X27 | 23 | X67 | 55 | Y27 | 323 | Y67 | 355 |                                                                                                                                                                                                                                                                                             |           |
| X30 | 24 | X70 | 56 | Y30 | 324 | Y70 | 356 |                                                                                                                                                                                                                                                                                             |           |
| X31 | 25 | X71 | 57 | Y31 | 325 | Y71 | 357 |                                                                                                                                                                                                                                                                                             |           |
| X32 | 26 | X72 | 58 | Y32 | 326 | Y72 | 358 |                                                                                                                                                                                                                                                                                             |           |
| X33 | 27 | X73 | 59 | Y33 | 327 | Y73 | 359 |                                                                                                                                                                                                                                                                                             |           |
| X34 | 28 | X74 | 60 | Y34 | 328 | Y73 | 360 |                                                                                                                                                                                                                                                                                             |           |
| X35 | 29 | X75 | 61 | Y35 | 329 | Y75 | 361 |                                                                                                                                                                                                                                                                                             |           |
| X36 | 30 | X76 | 62 | Y36 | 330 | Y76 | 362 |                                                                                                                                                                                                                                                                                             |           |
| X37 | 31 | X77 | 63 | Y37 | 331 | Y77 | 363 |                                                                                                                                                                                                                                                                                             |           |

Read D100 of plc to 0x1000 display on the screen (0x03 command)

EDIT 22.BIN FILE: 0001c000h: 5A 01 03 01 30 01 00 00 10 00 00 64 00 00 00 00

Note: 0x5A= This instruction executes.

0X01= PLC ID.

0X03= Read with command 03.

0x01= read a word of data.

0x30= Communication timeout 48ms

0X01= Instruction trigger mode (current page execution)

0x0000= Execute on page 0

0x1000= show address

0x0064= The address assigned by D100 in the point table (100)

- Read D10-D73 of PLC to 0x1002-1041 display on the screen (0x04 instruction)

EDIT 22.BIN FILE: 0001c010h: 5A 01 04 40 A0 01 00 01 10 02 00 0A 00 00 00 00

Note: 0x5A= This instruction executes.

0X01= PLC ID.

0X04= Read with 04 command.

0x40= Read 64 words of data.

0xA0= The communication timeout is 160ms.

0X01= Instruction trigger mode (current page execution).

0x0001= Execute on 1 page.

0x1002= Show address.

0x000A= The address assigned by D10 in the point table (10).

- Write the 0x1042 address data of the screen into the D1 of the plc (0x06 instruction)

- EDIT 22.BIN FILE:

0001c020h: 5A 01 06 01 30 04 00 00 10 42 00 01 00 00 00 00

NOTE: 0x5A= This instruction executes.

0X01= PLC ID.

0X06= Write with 06 command.

0x01=06 instruction is limited to one word data.

0x30= Communication timeout 48ms.

0X04= command trigger mode (If the data of 0x1042 is changed, it will be sent automatically. This mode has a reissue function to ensure successful sending, and there is no need to read the write result of the slave.)

0x0000= no configuration required.

0x1042= Send the address assigned by the data source in the screen.

0x0001= Address assigned by D1 in point table (1).

Write the 0x1044-0x1046 address data of the screen into the D2-D4 of the plc (0x10 instruction 04 trigger mode)

Edit 22.bin file: 0001c030h: 5A 01 10 03 30 04 00 00 10 44 00 02 00 00 00 00

Note: 0x5A= This instruction executes.

0x01= PLC ID.

0x10= Write with 10 instructions.

0x03= Write 3 word data.

0x30= Communication timeout 48ms.

0x04= Instruction trigger mode (the data of 0x1044-0x1046 is changed and automatically sent, this mode has a reissue function to ensure successful sending, no need to read the write result of the slave).

0x0000= no configuration required.

0x1044= Send the address assigned by the data source in the screen.

0x0002= Address assigned by D2 in point table (2-4).

Write the 0x1047-0x1049 address data of the screen into the D5-D7 of the plc (0x10 instruction 02 trigger mode)

Edit 22.bin file: 0001c040h: 5A 01 10 03 30 02 10 50 10 47 00 05 00 00 00 00

Note: 0x5A= This instruction executes.

0x01= PLC ID.

0x10= Write with 10 instructions.

0x03= Write 3 word data.

0x30= Communication timeout 48ms.

0x02= Instruction trigger mode (automatically send when 0x1050 is non-zero, this mode has a reissue function to ensure successful sending,

No need to read the write result of the slave).

0x1050= The address of the button that triggers the sending.

0x1047= Send the address assigned by the data source in the screen.

0x0005= The address assigned by D5 in the point table (5-7).

### Read the Y1 of the PLC to the 0-bit display in the bit display area on the screen (0x01 command)

Note: The screen does not have a bit address, in order to address bit variables, a 256bit display area is defined starting from 0X0100

Since it is not a real bit variable, there are certain restrictions when using 0X01 and 0X02 instructions. 0x01, 0x02 instructions fixedly read 16bit (one word) data. When setting the address of the slave machine, round up to 16. For example, when reading Y1 in this example, the address of Y1 is found to be 301, and the actual address of the slave machine should be 300. When reading Y0-Y17, fill in 300, which is actually 300. To 315, 16bit will all be read. The display area address is also rounded up by 16. For example, if it is displayed at 0 in this example, then bit0 - Y0 BIT1-Y1 of 0x0100 ..... BIT15-Y17. If it is displayed at 16 bits, then bit0 of 0x0101 - Y0 BIT1-Y1.....BIT15-Y17. The display area should be displayed with bit icons.

EDIT 22.BIN FILE: **0001c050h: 5A 01 01 01 30 01 00 05 00 00 01 2C 00 00 00 00**

Note: 0x5A= This instruction executes.

0X01= PLC ID.

0X01= Read with 01 command.

0x01= read a word of data.

0x30= Communication timeout 48ms

0X01= Instruction trigger mode (current page execution)

0x0005= Execute on page 5

0x0000= display bit address (0x0100.15-0x0100.0)

0x012C= The start bit address assigned by Y1 in the point table (300)

### Read the M5 of PLC to the 32-bit display in the bit display area on the screen (command 0x02)

EDIT 22.BIN FILE: **0001c060h: 5A 01 02 01 30 01 00 05 00 20 0F A0 00 00 00 00**

Note: 0x5A= This instruction executes.

0X01= PLC ID.

0X02= Read with 02 command.

0x01= read a word of data.

0x30= Communication timeout 48ms

0X01= Instruction trigger mode (current page execution)

0x0005= Execute on page 5

0x0020= Display bit address (0x0102.15-0x0102.0)

0x0FA0= The starting address of M2 allocated in the point table (4000)

Write the fifth digit of the keypad on the screen into Y2 of the PLC (command 0x05)

Edit 22.bin file: `0001c070h: 5A 01 05 01 30 04 00 00 00 05 01 2E 00 00 00 00`

Note: 0x5A= This instruction executes.

0X01= PLC ID.

0X05= Write with 05 command.

0x01= a bit of data.

0x30= Communication timeout 48ms

0X04= Instruction trigger mode (the address of bit 5 is changed and sent)

0x0000= no configuration required

0x0005= Button bit address (0x0110.5)

0x012E= The start bit address (302) of Y2 allocated in the point table.