

Rockwell_Micro820_HMI043LM_42ATCS

V1.0 - Modbus RTU Rockwell Micro820

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Software HMI043WM-42ATCS

The HMI-Project explains how to visualize data coming from modbus master. It shows how to send a value to the master, too.

Very important is the modbus data mapping. It can be done with the help of an editor, which is found under "Tools->ModbusEditor" in the HMIDesigner.

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The screenshot shows the 'Modbus Register Defines' window. The top toolbar has 'Modbus Editor' highlighted with a red box. The main window displays a table of registers:

Register No.	Register Name	HiByte	LoByte	HiByte	LoByte
1	Random float value (high word) R_float	HiByte	LoByte	Adr: 2 HiByte	Adr: 2 LoByte
2	Random float value (low word) R_float	Adr: 1 HiByte	Adr: 1 LoByte	HiByte	LoByte
3	Random integer value R_integer	HiWord HiByte	HiWord LoByte	HiByte	LoByte
4	Analog read value R_analog	HiWord HiByte	HiWord LoByte	HiByte	LoByte

Annotations in the image:

- HMI Register name:** Points to the 'R_analog' register name.
- Modbus address:** Points to the register number '4'.
- Modbus byte mapping:** Points to the bit mapping for the 'R_analog' register.

To transfer a 32 bit float value, two modbus registers (Adress 1 & 2) are mapped to one floating point HMI-Register. Visualisation is done automatically with the help of automatic changing text labels and corresponding print function.

Hardware

Hardware setup
Rockwell Micro820 (2080-LC20-20QWB) is connected through RS485 with HMI043WM-42ATCS

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