

Gate Modbus - integration with Wanas recuperator

Note! The following instruction is dedicated for the second generation of Modbus Gate module (FW: 1.1.10-2140)!

The purpose of this article is presenting an integration of Grenton system with Wanas recuperator using Modbus RTU communication protocol.

The user manual is available at: [Wanas - documentation](#)

The integration allows to read the value of (for example):

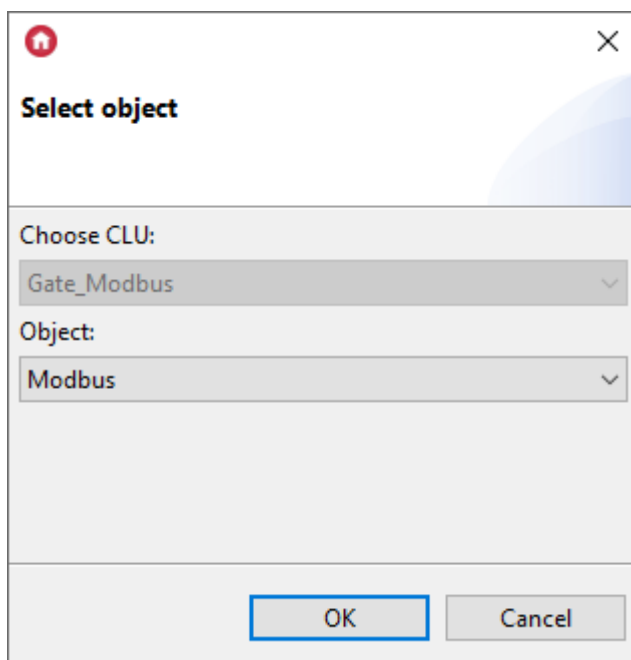
- air supply gear;
- air exhaust gear;
- air supply temperature;
- air exhaust temperature.

In order to execute this integration, there are needed:

- Gate Modbus (named **Gate_Modbus**)
- Recuperator Wanas (e.g. Wanas 555 V_XF)

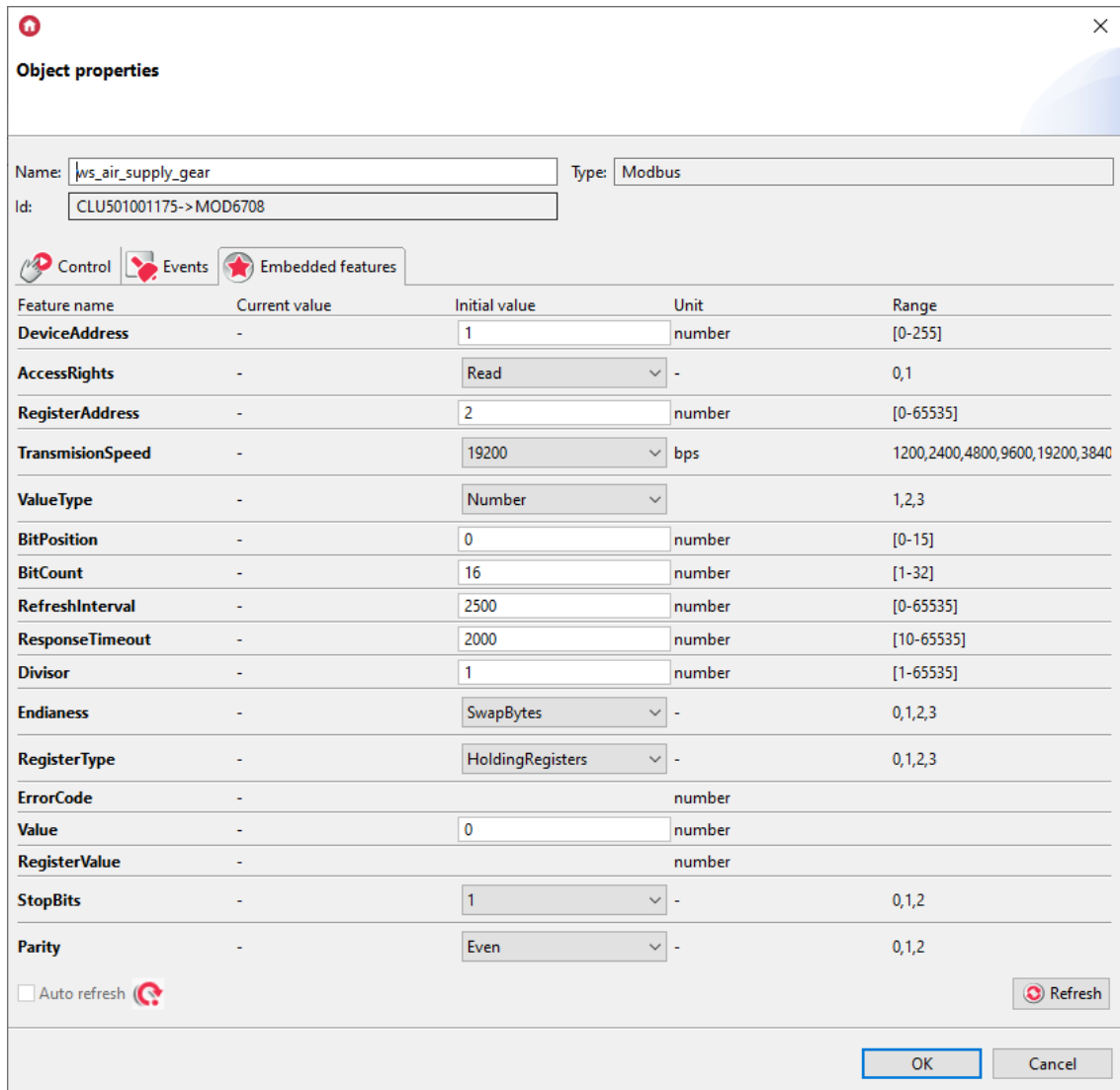
Configuration of Modbus virtual objects

1. Add virtual object on *Gate_Modbus*:



2. For default settings of recuperator - enter the values of *Embedded features* in **Modbus** virtual objects as follows:

- Air supply gear:



Object properties

Name: Type:

Id:

Control Events Embedded features

Feature name	Current value	Initial value	Unit	Range
DeviceAddress	-	<input type="text" value="1"/>	number	[0-255]
AccessRights	-	<input type="text" value="Read"/>	-	0,1
RegisterAddress	-	<input type="text" value="2"/>	number	[0-65535]
TransmissionSpeed	-	<input type="text" value="19200"/>	bps	1200,2400,4800,9600,19200,3840
ValueType	-	<input type="text" value="Number"/>		1,2,3
BitPosition	-	<input type="text" value="0"/>	number	[0-15]
BitCount	-	<input type="text" value="16"/>	number	[1-32]
RefreshInterval	-	<input type="text" value="2500"/>	number	[0-65535]
ResponseTimeout	-	<input type="text" value="2000"/>	number	[10-65535]
Divisor	-	<input type="text" value="1"/>	number	[1-65535]
Endianess	-	<input type="text" value="SwapBytes"/>	-	0,1,2,3
RegisterType	-	<input type="text" value="HoldingRegisters"/>	-	0,1,2,3
ErrorCode	-		number	
Value	-	<input type="text" value="0"/>	number	
RegisterValue	-		number	
StopBits	-	<input type="text" value="1"/>	-	0,1,2
Parity	-	<input type="text" value="Even"/>	-	0,1,2

Auto refresh

- Air exhaust gear:

✖

Object properties

Name: Type:

Id:

Control
 Events
 Embedded features

Feature name	Current value	Initial value	Unit	Range
DeviceAddress	-	<input type="text" value="1"/>	number	[0-255]
AccessRights	-	<input type="text" value="Read"/>	-	0,1
RegisterAddress	-	<input type="text" value="3"/>	number	[0-65535]
TransmissionSpeed	-	<input type="text" value="19200"/>	bps	1200,2400,4800,9600,19200,38400
ValueType	-	<input type="text" value="Number"/>	-	1,2,3
BitPosition	-	<input type="text" value="0"/>	number	[0-15]
BitCount	-	<input type="text" value="16"/>	number	[1-32]
RefreshInterval	-	<input type="text" value="2500"/>	number	[0-65535]
ResponseTimeout	-	<input type="text" value="2000"/>	number	[10-65535]
Divisor	-	<input type="text" value="1"/>	number	[1-65535]
Endianess	-	<input type="text" value="SwapBytes"/>	-	0,1,2,3
RegisterType	-	<input type="text" value="HoldingRegisters"/>	-	0,1,2,3
ErrorCode	-		number	
Value	-	<input type="text" value="0"/>	number	
RegisterValue	-		number	
StopBits	-	<input type="text" value="1"/>	-	0,1,2
Parity	-	<input type="text" value="Even"/>	-	0,1,2

Auto refresh
 Refresh

- Air supply temperature:

Object properties

Name: Type:

Id:

Control
 Events
 Embedded features

Feature name	Current value	Initial value	Unit	Range
DeviceAddress	-	<input type="text" value="1"/>	number	[0-255]
AccessRights	-	<input type="text" value="Read"/>	-	0,1
RegisterAddress	-	<input type="text" value="6"/>	number	[0-65535]
TransmissionSpeed	-	<input type="text" value="19200"/>	bps	1200,2400,4800,9600,19200,38400
ValueType	-	<input type="text" value="Number"/>	-	1,2,3
BitPosition	-	<input type="text" value="0"/>	number	[0-15]
BitCount	-	<input type="text" value="16"/>	number	[1-32]
RefreshInterval	-	<input type="text" value="2500"/>	number	[0-65535]
ResponseTimeout	-	<input type="text" value="2000"/>	number	[10-65535]
Divisor	-	<input type="text" value="10"/>	number	[1-65535]
Endianness	-	<input type="text" value="SwapBytes"/>	-	0,1,2,3
RegisterType	-	<input type="text" value="HoldingRegisters"/>	-	0,1,2,3
ErrorCode	-		number	
Value	-	<input type="text" value="0"/>	number	
RegisterValue	-		number	
StopBits	-	<input type="text" value="1"/>	-	0,1,2
Parity	-	<input type="text" value="Even"/>	-	0,1,2

Auto refresh

- Air exhaust temperature:

✖

Object properties

Name: Type:

Id:

Control
 Events
 Embedded features

Feature name	Current value	Initial value	Unit	Range
DeviceAddress	-	<input type="text" value="1"/>	number	[0-255]
AccessRights	-	<input type="text" value="Read"/>	-	0,1
RegisterAddress	-	<input type="text" value="5"/>	number	[0-65535]
TransmissionSpeed	-	<input type="text" value="19200"/>	bps	1200,2400,4800,9600,19200,38400
ValueType	-	<input type="text" value="Number"/>	-	1,2,3
BitPosition	-	<input type="text" value="0"/>	number	[0-15]
BitCount	-	<input type="text" value="16"/>	number	[1-32]
RefreshInterval	-	<input type="text" value="2500"/>	number	[0-65535]
ResponseTimeout	-	<input type="text" value="2000"/>	number	[10-65535]
Divisor	-	<input type="text" value="10"/>	number	[1-65535]
Endianness	-	<input type="text" value="SwapBytes"/>	-	0,1,2,3
RegisterType	-	<input type="text" value="HoldingRegisters"/>	-	0,1,2,3
ErrorCode	-		number	
Value	-	<input type="text" value="0"/>	number	
RegisterValue	-		number	
StopBits	-	<input type="text" value="1"/>	-	0,1,2
Parity	-	<input type="text" value="Even"/>	-	0,1,2

Auto refresh

- Gear of zone 1 (also *Write* function is available):

Object properties
✕

Name:

Type: Modbus

Id:

Control
 Events
 Embedded features

Feature name	Current value	Initial value	Unit	Range
DeviceAddress	-	<input type="text" value="1"/>	number	[0-255]
AccessRights	-	ReadWrite	-	0,1
RegisterAddress	-	<input type="text" value="14"/>	number	[0-65535]
TransmissionSpeed	-	19200	bps	1200,2400,4800,9600,19200,38400
ValueType	-	Number	-	1,2,3
BitPosition	-	<input type="text" value="0"/>	number	[0-15]
BitCount	-	<input type="text" value="16"/>	number	[1-32]
RefreshInterval	-	<input type="text" value="2500"/>	number	[0-65535]
ResponseTimeout	-	<input type="text" value="2000"/>	number	[10-65535]
Divisor	-	<input type="text" value="1"/>	number	[1-65535]
Endianess	-	SwapBytes	-	0,1,2,3
RegisterType	-	HoldingRegisters	-	0,1,2,3
ErrorCode	-		number	
Value	-	<input type="text" value="0"/>	number	
RegisterValue	-		number	
StopBits	-	1	-	0,1,2
Parity	-	Even	-	0,1,2

Auto refresh
 Refresh

OK
Cancel

3. Send the configuration to the *Gate Modbus*.