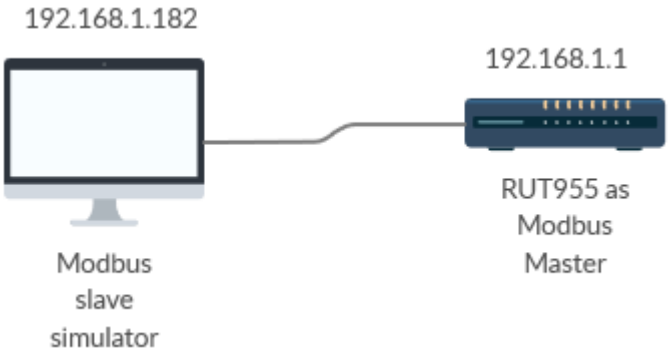
Modbus TCP Master



A Modbus **master** device can request data from Modbus slaves.

RUT955 will be used throughout this guide

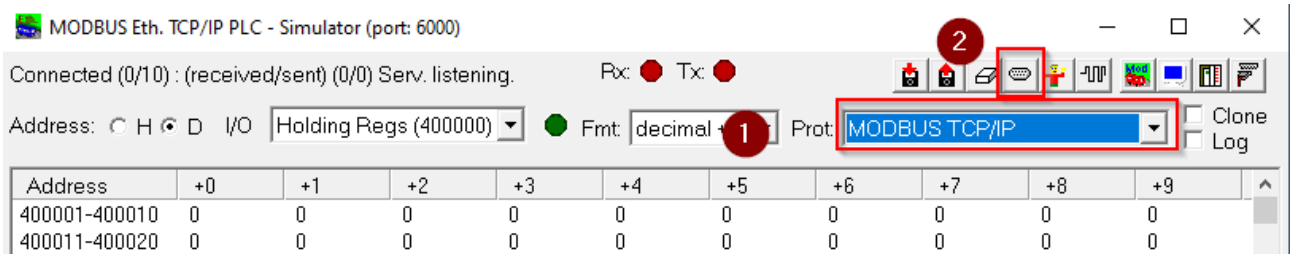
Prerequisites:

- ModRSsim2 (https://sourceforge.net/projects/modrssim2/)

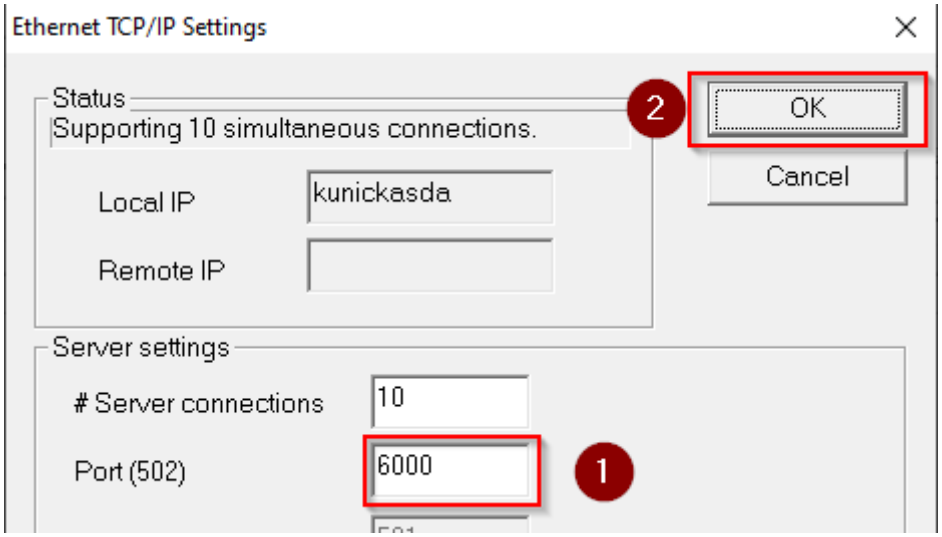
ModRSsim2 is a slave device simulator software which simulates a real Modbus Slave device.

Configuring ModRSsim2

1. Select Protocol as **MODBUS TCP/IP**
2. Click **Setup the communication Serial or TCP/IP port**.



1. Type in a port what you want to use, we will use the same one when configuring the router.
2. Click **OK**

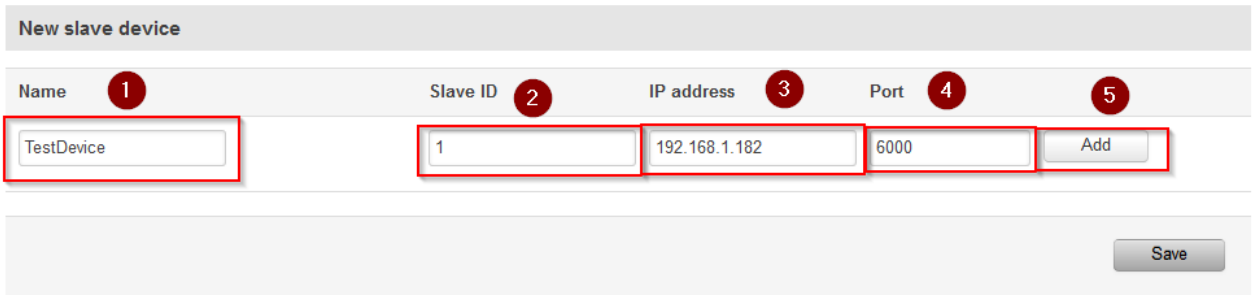


Change a few registers for testing purposes. To do that, just double click on the register and in a pop-up window change it

Configuring router for reading registers

Open routers WebUI and navigate to **Services > Modbus > Modbus TCP Master**

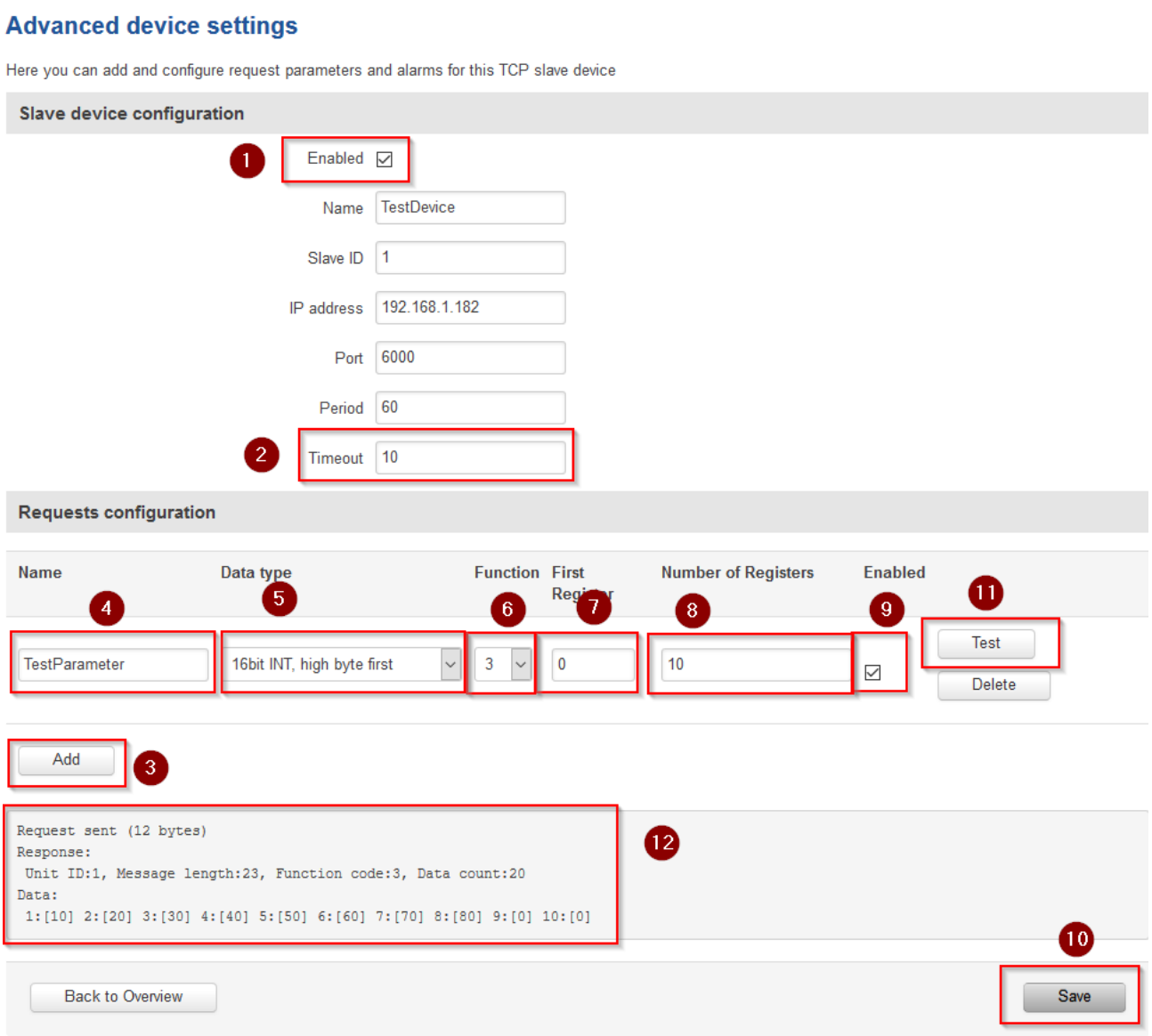
1. Type in a name for your device of your choosing
2. Type in 1 as a **Slave ID**
3. Type in Slave device's IP address (Because in this example a simulator software is being used, it is an IP address of our PC)
4. Type in a port which was configured in ModRSsim2
5. Click **Add**



You will be redirected to **Advanced device settings** page.

1. Check **Enable**
2. Type in **Timeout** period in seconds

3. Click **Add**
4. Enter a **name** of your choosing
5. Select **16bit INT, high byte first**
6. Select function **3** (Function 3 means **Read Holding Registers**, you can find codes for other functions in https://wiki.teltonika.lt/view/RUT955_Modbus#Slave_device_configuration)
7. Enter first register (In this example it is 0)
8. Enter how many registers router should read (For this example it is 10)
9. Check Enable
10. Save configuration
11. Test the Request
12. You should see a response

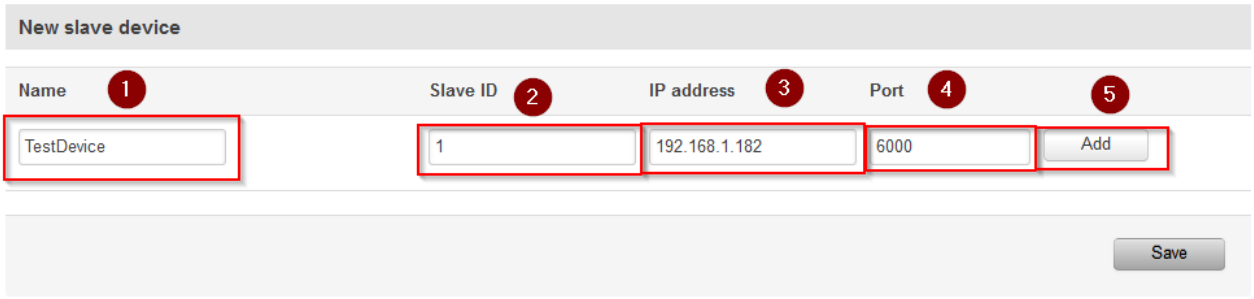


If you want to add another request configuration just click add and repeat configuration steps.

Configuring router for writing registers

Open routers WebUI and navigate to **Services > Modbus > Modbus TCP Master**

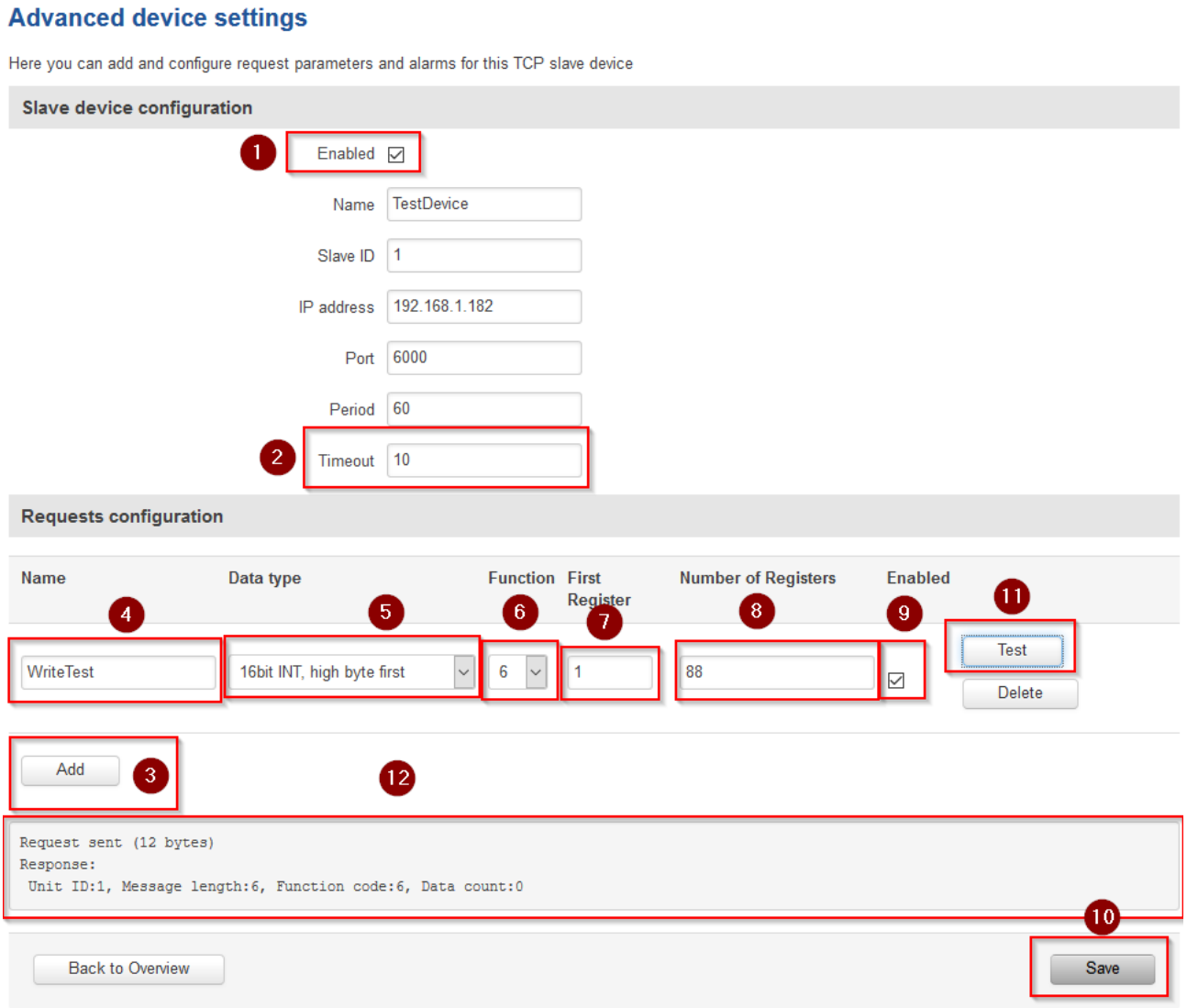
1. Type in a name for your device of your choosing
2. Type in 1 as a **Slave ID**
3. Type in Slave device's IP address (Because in this example a simulator software is being used, it is an IP address of our PC)
4. Type in a port which was configured in ModRSsim2
5. Click **Add**



You will be redirected to **Advanced device settings** page.

1. Check **Enable**
2. Type in **Timeout** period in seconds
3. Click **Add**
4. Enter a **name** of your choosing
5. Select **16bit INT, high byte first**
6. Select function 6 (Function 6 means **preset Single Register**, you can find codes for other functions in https://wiki.teltonika.lt/view/RUT955_Modbus#Slave_device_configuration)
7. Enter register you want to change (In this example it is 1)
8. Enter value to which you want to change this register
9. Check **Enabled**
10. **Save** configuration

11. **Test** the Request
12. You should see a **response**



If you open **ModRSsim2** you will see that first register has changed into a value that was configured in the router.