

Другие языки:

[English](#) • [русский](#) • [中文](#)

Updated 21.9.2018

## Содержание

- [1. Модбас TCP](#)
  - [1.1 Adding subdevices](#)
  - [1.2 Setting subdevices](#)
    - [1.2.1 General parameters](#)
    - [1.2.2 Button](#)
    - [1.2.3 Multistate button](#)
    - [1.2.4 Relay](#)
    - [1.2.5 Dimmer](#)
    - [1.2.6 Display and Value input](#)
    - [1.2.7 Blinds](#)
  - [1.3 Importing subdevices from Microsoft Excel or Google Sheets](#)

## Модбас TCP

### Adding subdevices

Subdevice	Type	Description
Button	-	It's a button. When it is pressed, it turns on/off something
Multistate button	-	It's a button. When it is pressed, a drop down list appears with an option to select one variant (selector)
Relay	Through Relay	It's a switch. When it is pressed, something can be turned on/off and feedback is displayed.
	Light	
	Fan Control	
Dimmer	Through Dimmer	It is a slider. It can be moved and feedback is displayed.
	Light	

	Through analog input	
	Temperature sensor	
	Luminosity sensor	
	Pressure sensor	
	Humidity sensor	
	Noise sensor	
	Rain sensor	
	Wind speed sensor	
Display	Motion sensor	It's an indicator to display a numeric value
	Smoke sensor	
	Air pollution sensor	
	Visibility sensor	
	Current meter	
	Energy meter	
	Frequency meter	
	Voltage meter	
	CO2 sensor	
	Through Binary Input	
	Input Button	
	Input Switch	
	Contact	
	Motion detector	
	Smoke detector	
	Noise detector	
	Rain detector	
Binary sensor	Wind detector	It's an indicator to display on/off state (lamp)
	Filling detector	
	Water leakage detector	
	Gas leakage detector	
	Glass break detector	
	Presence detector	
	Proximity detector	
	Vibration detector	
	Light detector	
	Through analog input	
	Temperature sensor	
	Luminosity sensor	
	Pressure sensor	
	Humidity sensor	
	Noise sensor	
	Rain sensor	
	Wind speed sensor	
Text display	Motion sensor	It's an item to enter text
	Smoke sensor	
	Air pollution sensor	
	Visibility sensor	
	Current meter	
	Energy meter	
	Frequency meter	
	Voltage meter	
	CO2 sensor	
Blinds	-	It's a two-button (open/close) or a three-button (open/close/stop) item to control blinds.
Value input	-	It's an item to enter a numeric value

RGB color input	Main light Back light	It's an item to control a three-channel dimmer
Custom color (color display)	Main light Back light	It's an item to display color

## Setting subdevices

### General parameters

Parameter	Valid values	Description
Name	Any text	Name of subdevice for identification
Device ID	0-255	Device ID in Modbus TCP network
Type	Coil Holding register Discrete Inputs Input Register	Type of Modbus TCP data
Address	0-65535	Address of data location in the memory of Modbus TCP device
Word Size	Word(16bit) DWord(32bit) Float(32bit)	Data size (not specified for binary types of data Coil and Discrete Inputs)
Content Type	Low Endian Big Endian Swapped Low Endian Swapped Big Endian	The order of bytes in words and double words (not specified for binary types of data Coil and Discrete Inputs)
Bit number	0-31	The ordinal number of a bit in a word or double word (not specified for binary types of data Coil and Discrete Inputs)

### Button

Parameter	Valid values	Description
Press Value	Any number	A number that is sent to a Modbus TCP device the moment a button is pressed
Release Value	Any number	A number that is sent to a Modbus TCP device the moment a button is released

### Multistate button

Parameter	Valid values	Description
Active states	2-5	Number of states (variants in the list)
State 1 label	Any text	A text that is displayed for state 1
State 1 value	Any number	A value that is sent to a device when state 1 is selected
State 2 label	Any text	A text that is displayed for state 2
State 2 value	Any number	A value that is sent to a device when state 2 is selected

State 3 label	Any text	A text that is displayed for state 3
State 3 value	Any number	A value that is sent to a device when state 3 is selected
State 4 label	Any text	A text that is displayed for state 4
State 4 value	Any number	A value that is sent to a device when state 4 is selected
State 5 label	Any text	A text that is displayed for state 5
State 5 value	Any number	A value that is sent to a device when state 5 is selected

## Relay

Parameter	Valid values	Description
On value (write)	Any number	A value that is sent to a device when the relay is switched to "on" position
Off value (write)	Any number	A value that is sent to a device when the relay is switched to "off" position
On value (read)	Any number	A value that must be received from a device when the relay is switched to "on" position
Off value (read)	Any number	A value that must be received from a device when the relay is switched to "off" position

## Dimmer

Parameter	Valid values	Description
Min value	Any number	A value that corresponds to the utmost left position of the slider bar
Max Value	Any number	A value that corresponds to the utmost right position of the slider bar

## Display and Value input

Parameter	Valid values	Description
Units	Any text (no more than 5 symbols)	Measuring units
Number after point	Off, 0-9	The number of decimal places displayed after a point
Scale mode	Off, On	Turning on the scaling mode
InputMin	Any integer number	A value to which the minimal input value is corresponded
InputMax	Any integer number	A value to which the maximum input value is corresponded
OutputMin	Any integer number	A value to which the minimal output value is corresponded
OutputMax	Any integer number	A value to which the maximum output value is corresponded

## Blinds

Parameter	Valid values	Description
Open Value	Any number	A value that is sent to a device when "Open" button is pressed
Close Value	Any number	A value that is sent to a device when "Close" button is pressed
Stop Value	Any number	A value that is sent to a device when "Stop" button is pressed

## Importing subdevices from Microsoft Excel or Google Sheets

You can tune the module **Modbus TCP** in Microsoft Excel or Google Sheets fast using a template and then import the settings as a .csv-file to i3 lite project via the web-interface.

[Download the table template to import Modbus devices](#)

1 Open the template file in Microsoft Excel, Google Sheets or any other table processor.

2 Add a required number of channels.

A	B	C	D	E	F
3					
4	Channels =				
5					
6	Name	DeviceID	Type	Address	WordSize
7	Button1		0 Coil	0	
8	Button2		0 Holding register	0	Word(16bit)
9	MultiButton		0 Holding register	1	Word(16bit)
10	MultiButton5		0 Holding register	2	Word(16bit)
11	Relay		0 Coil	15	
12	Dimmer		0 Holding register	3	Word(16bit)
13	Display		0 Holding register	4	DWord(32bit)
14	Value		0 Holding register	7	Float(32bit)
15	Blinds		0 Holding register	6	Word(16bit)
16	Red		0 Holding register	10	Word(16bit)
17	Green		0 Holding register	11	Word(16bit)
18	Blue		0 Holding register	12	Word(16bit)
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

3 Add a required number of tags.

A	B	C	D	E	F
33					
34 :Feedback =					
35					
36 Name	DeviceID	Type	Address	WordSize	ContentType
37 MultiButton		0 Holding Register		1 Word(16bit)	Low Endian
38 MultiButton5		0 Holding Register		2 Word(16bit)	Low Endian
39 Relay		0 Coil		15	
40 Dimmer		0 Holding Register		3 Word(16bit)	Low Endian
41 Display		0 Holding Register		4 DWord(32bit)	Swapped Low Endian
42 Sensor		0 Discrete Inputs		1	
43 Text		0 Input Register		5 Word(16bit)	Low Endian
44 Value		0 Holding Register		7 Float(32bit)	Low Endian
45 Blinds		0 Holding Register		6 Word(16bit)	Big Endian
46 Alarm		0 Holding Register		13 Word(16bit)	Big Endian
47 Red		0 Holding Register		10 Word(16bit)	Low Endian
48 Green		0 Holding Register		11 Word(16bit)	Low Endian
49 Blue		0 Holding Register		12 Word(16bit)	Low Endian
50					
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					

4 Add a required number of subdevices.

A	B	C	D	E
62				
63 :Button =				
64				
65 Name	Command	Press value	Release value	Bit number
66 Button 1	Button1		1	0
67 Button 2	Button2		1	1
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				

Headings of obligatory parameters of subdevices are highlighted orange. Headings of optional parameters are highlighted grey.

You can add a required number of rows to the template table.

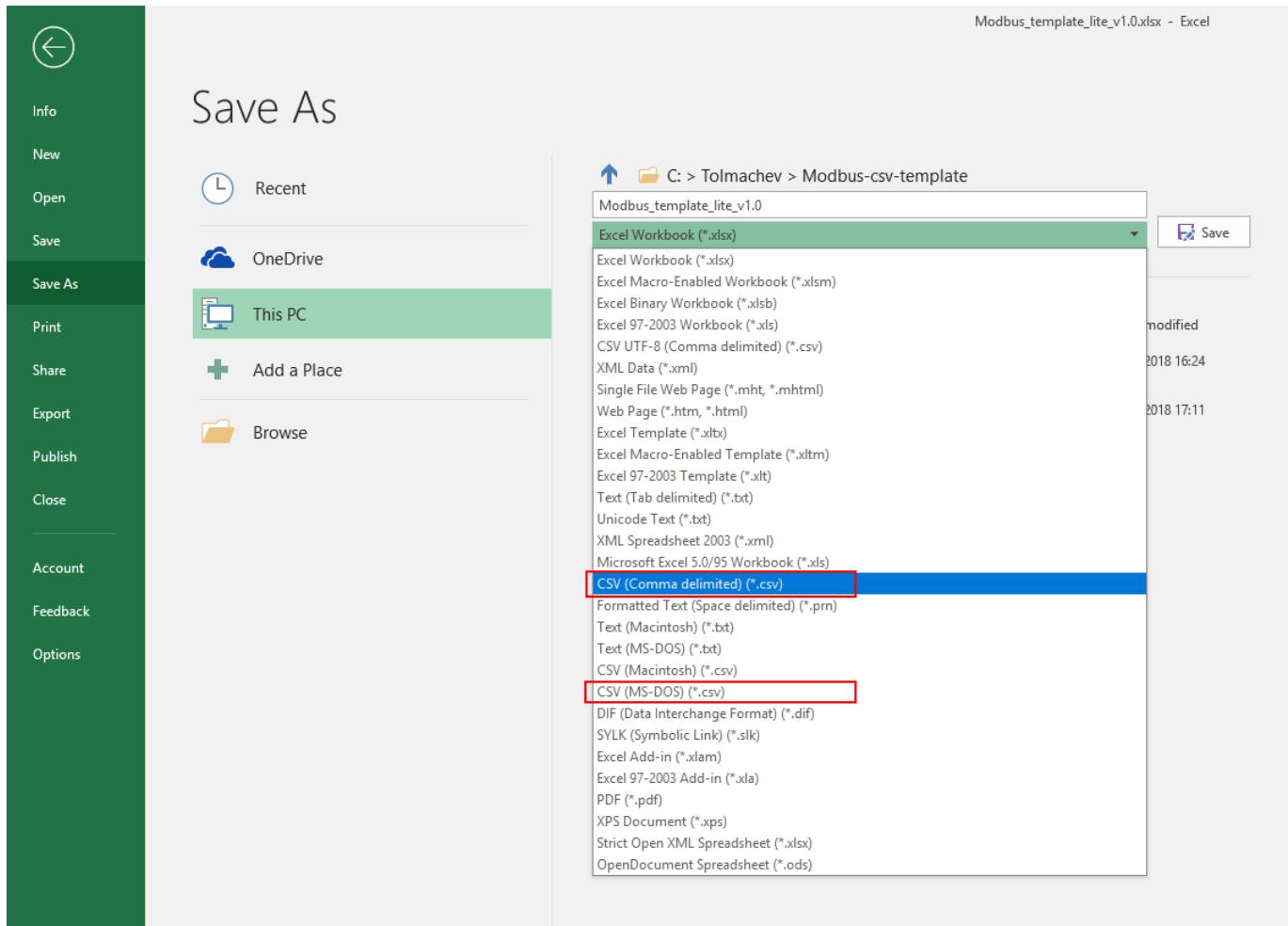
You can delete unrequired rows and even tables (except the red "Separator" cell).

Do not change the contents of the colored cells (headings of tables).

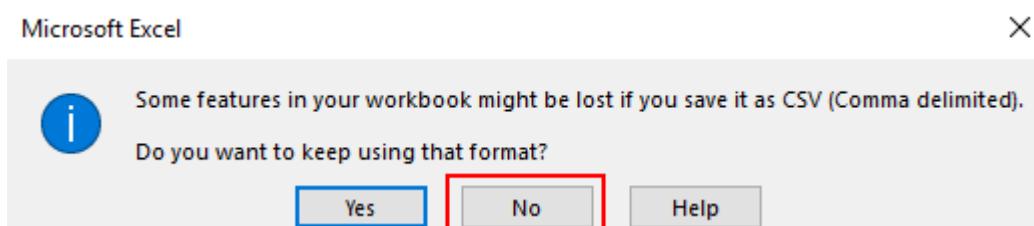
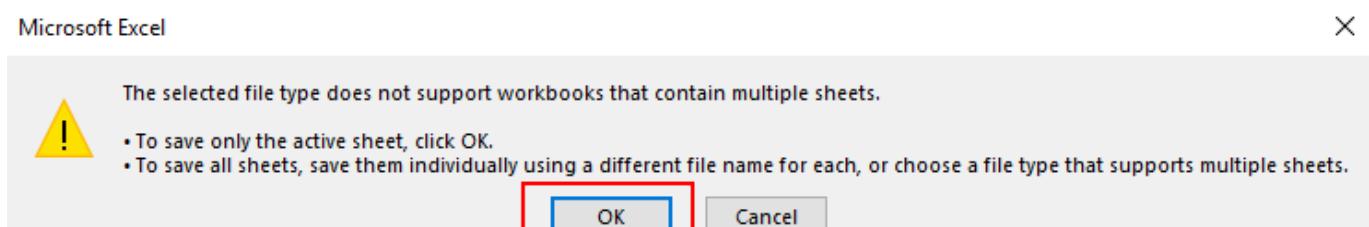
You can import Modbus TCP settings to i3 lite, using [a pro version of the table template](#). The formats of imported files are compatible.

5 Save the file of the set table in .csv format.

In Microsoft Excel:



Then click **OK** in the dialogue window and then click **No**.



In Google Sheets

Modbus\_template\_lite\_v1.0

File Edit View Insert Format Data Tools Add-ons Help Last edit was yesterday at 3:47 PM

Share... New Open... Import... Make a copy... Download as Microsoft Excel (.xlsx) Email as attachment... Version history Rename... Move to... Move to trash Publish to the web... Email collaborators... Document details... Spreadsheet settings... Print Ctrl+P

Address WordSize ContentType

0		
0	Word(16bit)	Low Endian
1	Word(16bit)	Low Endian
2	Word(16bit)	Low Endian
15		
3	Word(16bit)	Low Endian
4	DWord(32bit)	Swapped Low Endian
7	Float(32bit)	Low Endian
6	Word(16bit)	Big Endian
10	Word(16bit)	Low Endian
11	Word(16bit)	Low Endian
12	Word(16bit)	Low Endian

Feedback =

Name DeviceID Type Address WordSize ContentType

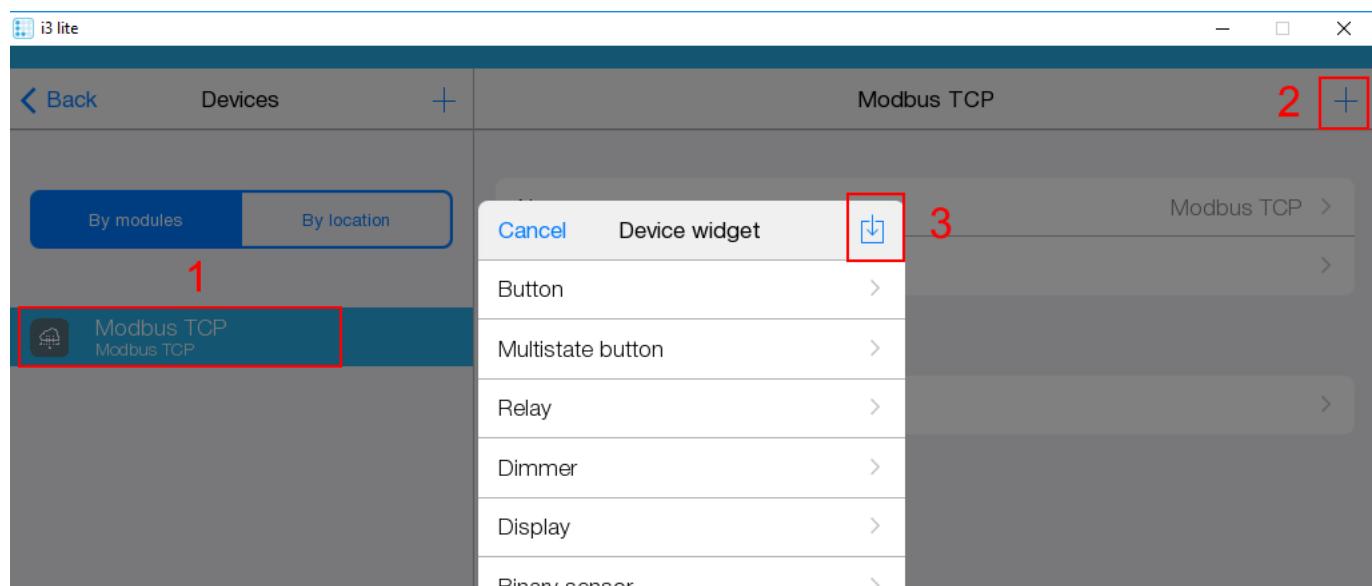
MultiButton	0	Holding Register	1	Word(16bit)	Low Endian
-------------	---	------------------	---	-------------	------------

+ Modbus System

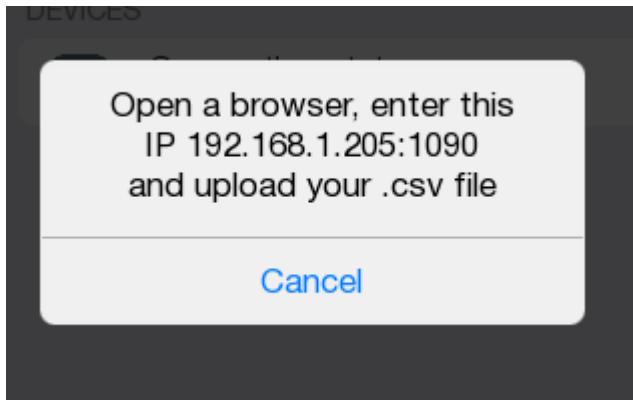
6 Open i3 lite project, add "Modbus TCP" module in the **Devices** tab.

7 Press "+" to add a new subdevice.

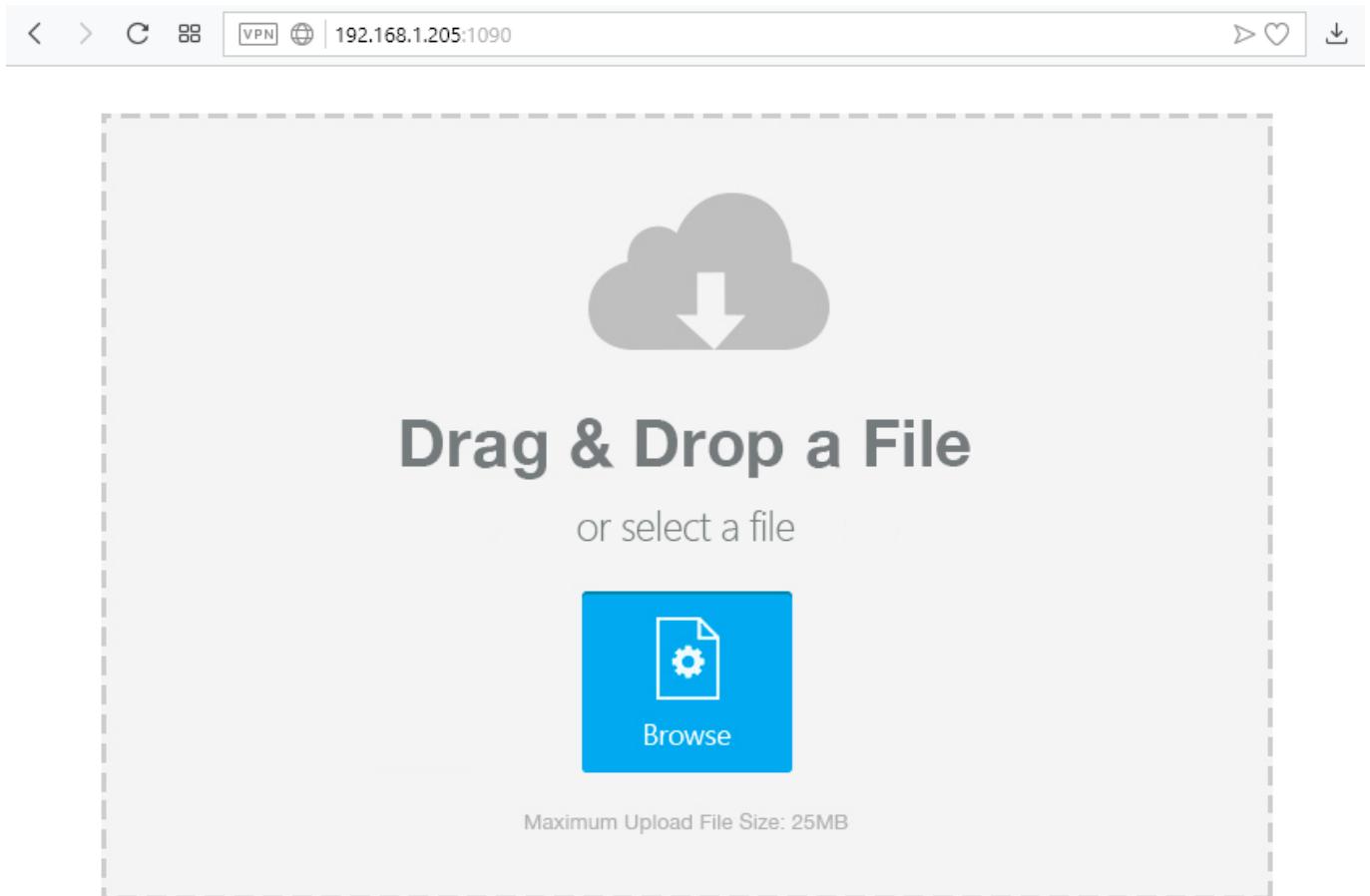
8 Press "down arrow" to import a .csv-file.



9 A message appears:



10 Enter the IP address of a panel, a colon and "1090" port number in the address bar of a browser. Press "Enter".



11 Drag'n'drop the.csv file from the conductor to the open web-page to the open web-page or select a file by pressing "Browse".

12 The previous message must disappear from i3 pro panel and new subdevices must appear in the "Modbus TCP" module.

The screenshot shows a mobile application interface for managing devices. At the top, there is a header with a 'Back' button, the text 'Devices', and a '+' icon. Below this, there are two tabs: 'By modules' (selected) and 'By location'. A sidebar on the left lists categories: 'Modbus TCP' (selected), 'Modbus TCP', 'Modbus RTU', 'Modbus ASCII', 'MQTT', 'HTTP', 'TCP', 'Serial', and 'File'. The main content area is titled 'Modbus TCP' and contains sections for 'Name' (with a 'Modbus TCP >' link) and 'Module preferences' (with a '>' link). Below these is a 'DEVICES' section containing ten items, each with a small icon, the name, and 'No location': 'Connection status', 'Bin sensor', 'Blinds', 'Button 1', 'Button 2', 'Main light', 'Temp sensor', 'Buttons', 'MultiButton', 'RGB colorpicker', and 'Relay 1'.

If devices are not specified correctly in the .csv-file they are ignored during addition.

If parameters are not specified correctly in the .csv-file, their values are changes by default ones.