Эта страница является переводом страницы Modbus. Перевод выполнен на 100%.

Другие языки:
English • русский • □□□□□□

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How to use Modbus TCP module

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 Light Fan Control	It's a switch. When it is pressed, something can be turned on/off and feedback is displayed.
Dimmer	Through Dimmer Light	It is a slider. It can be moved and feedback is displayed.

Display	Through analog input Temperature sensor Luminosity sensor Pressure sensor Humidity sensor Noise sensor Rain sensor Wind speed sensor Motion sensor Smoke sensor Air pollution sensor Visibility sensor Current meter Energy meter Frequency meter Voltage meter CO2 sensor	It's an indicator to display a numeric value
Binary sensor	Through Binary Input Input Button Input Switch Contact Motion detector Smoke detector Noise detector Rain detector Wind detector Filling detector Water leakage detector Gas leakage detector Glass break detector Presence detector Proximity detector Vibration detector Light detector	It's an indicator to display on/off state (lamp)
Text display	Through analog input Temperature sensor Luminosity sensor Pressure sensor Humidity sensor Noise sensor Rain sensor Wind speed sensor Motion sensor Smoke sensor Air pollution sensor Visibility sensor Current meter Energy meter Frequency meter Voltage meter CO2 sensor	It's an item to enter text
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	ContentType
7	Button1	0	Coil	0		
8	Button2	0	Holding register	0	Word(16bit)	Low Endian
9	MultiButton	0	Holding register	1	Word(16bit)	Low Endian
10	MultiButton5	0	Holding register	2	Word(16bit)	Low Endian
11	Relay	0	Coil	15		
12	Dimmer	0	Holding register	3	Word(16bit)	Low Endian
13	Display	0	Holding register	4	DWord(32bit)	Swapped Low Endian
14	Value	0	Holding register	7	Float(32bit)	Low Endian
15	Blinds	0	Holding register	6	Word(16bit)	Big Endian
16	Red	0	Holding register	10	Word(16bit)	Low Endian
17	Green	0	Holding register	11	Word(16bit)	Low Endian
18	Blue	0	Holding register	12	Word(16bit)	Low Endian
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	0
67	Button 2	Button2	1	1	1
68					
69					
70					
71					
72					
73					
74					
75					
76					
77					
78					
79					
80					
81					

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

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

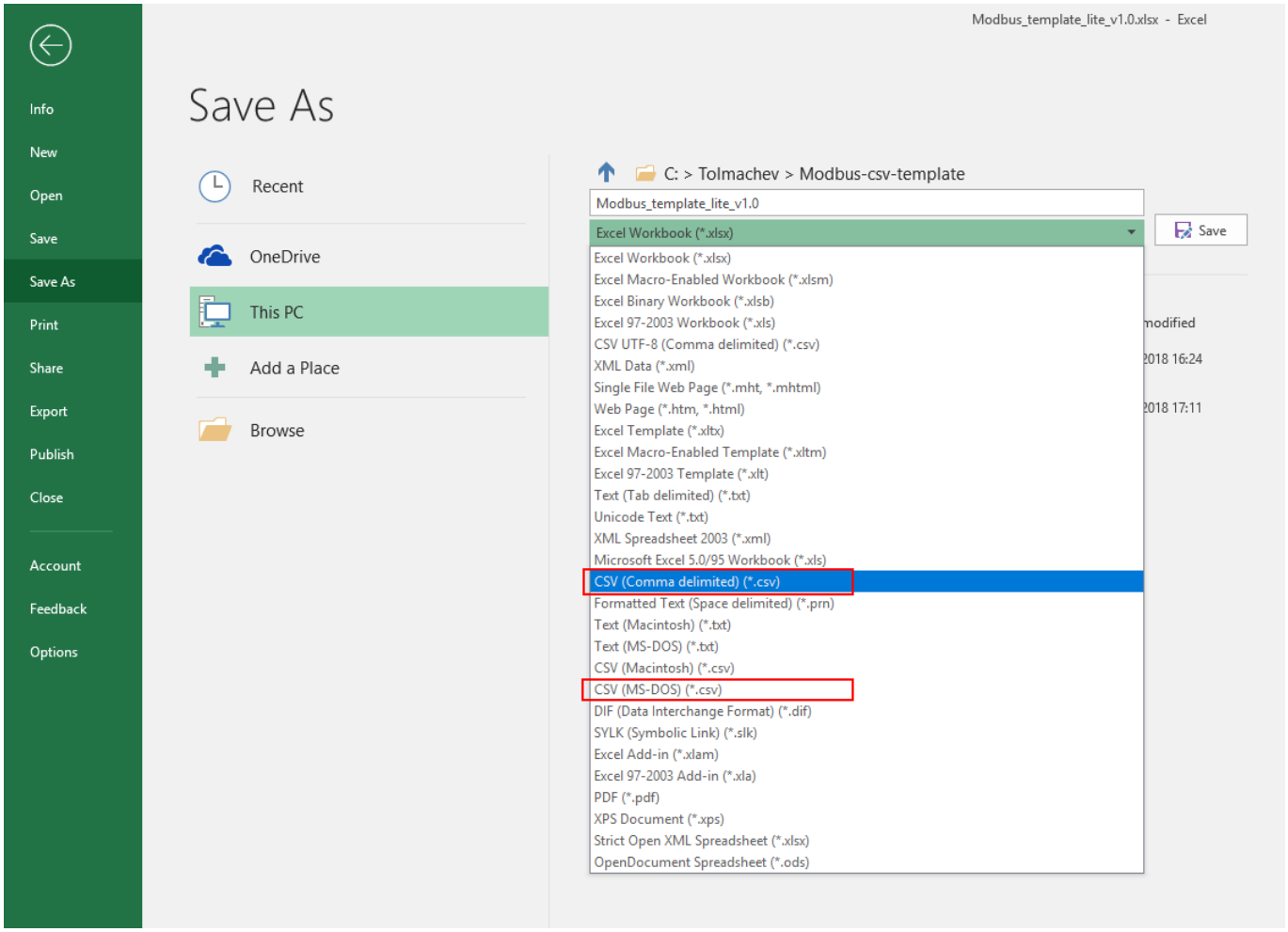
You can delete unrequired rows and even tables (except the red "Separator" cell).

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

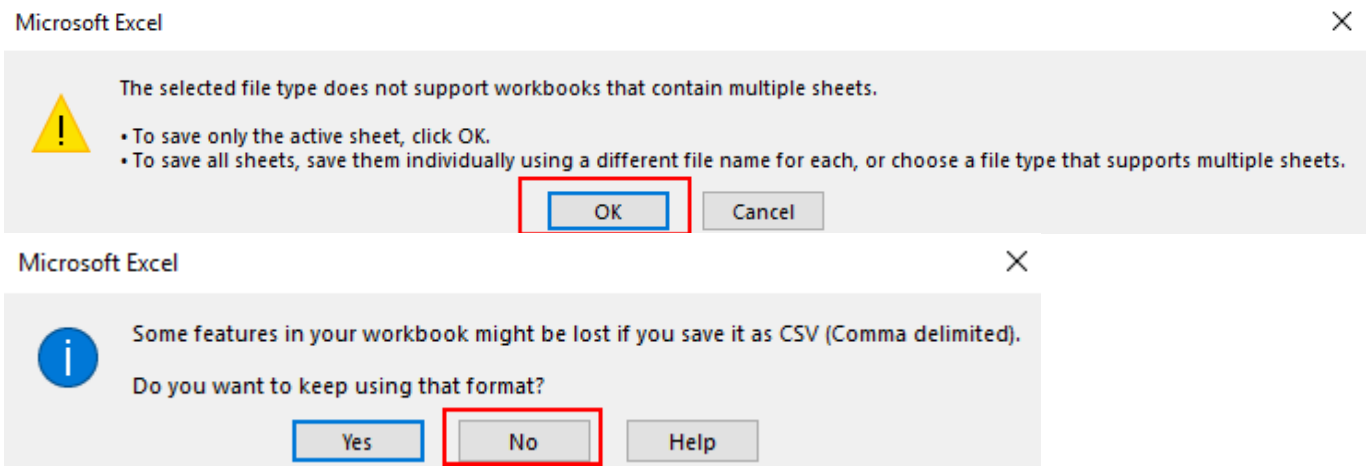
You can import Modbus TCP settings to i3 lite, using a pro version of the table template. The formats of imported files are compatible.

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

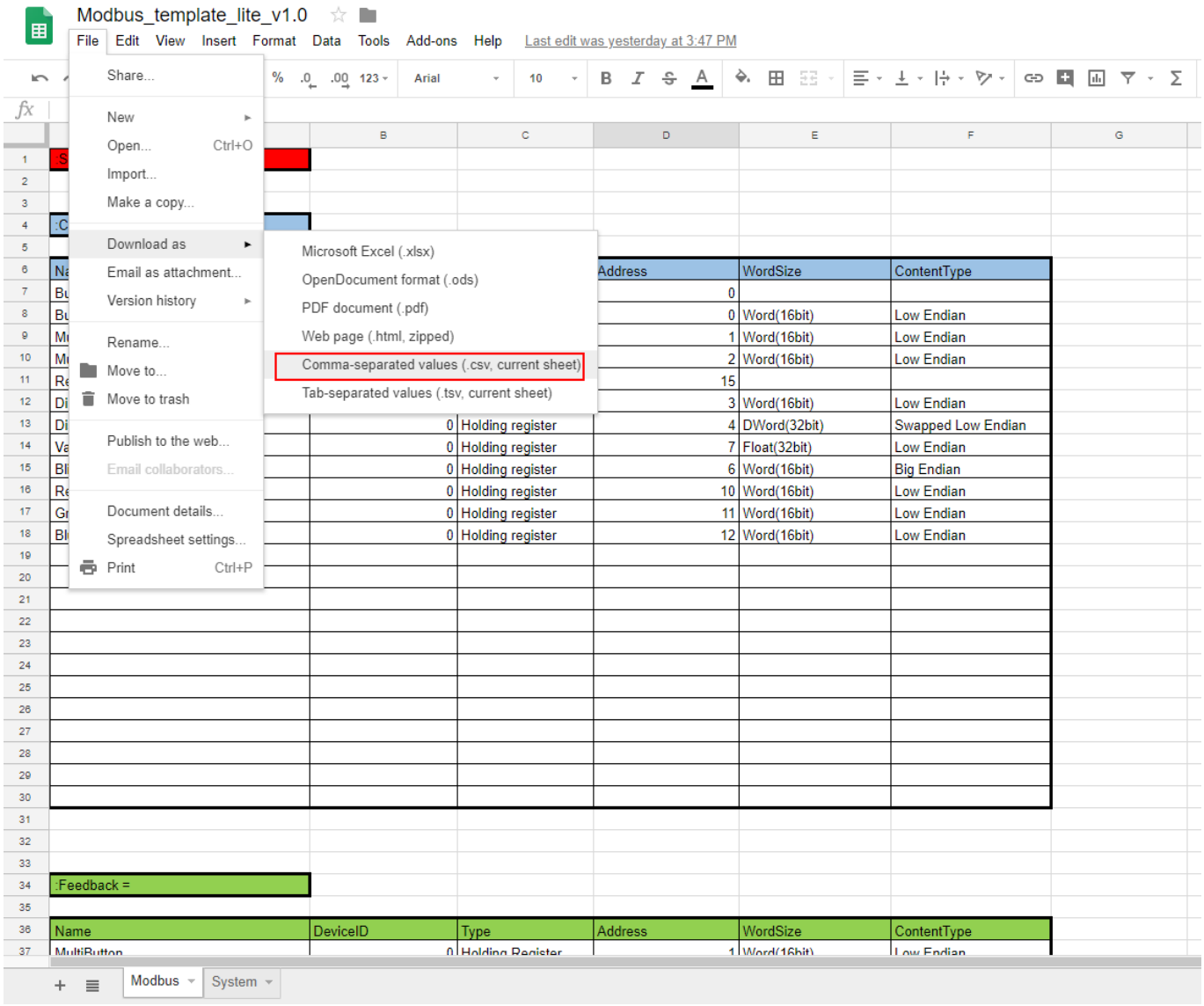
In Microsoft Excel:



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



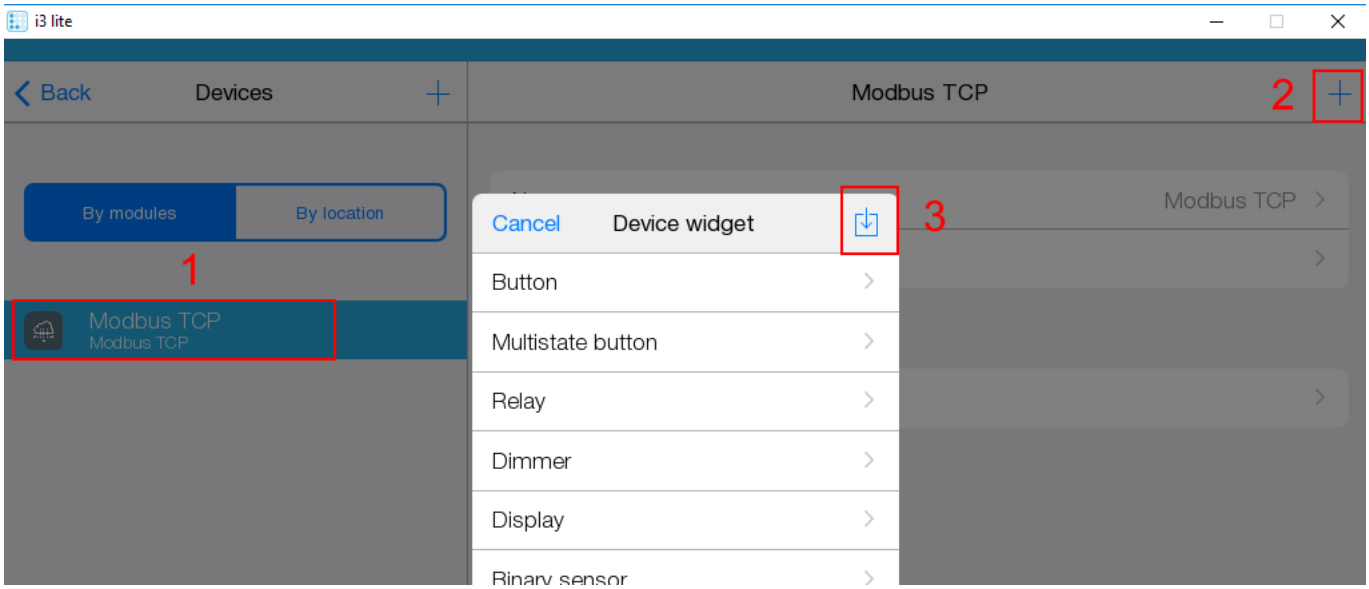
In Google Sheets



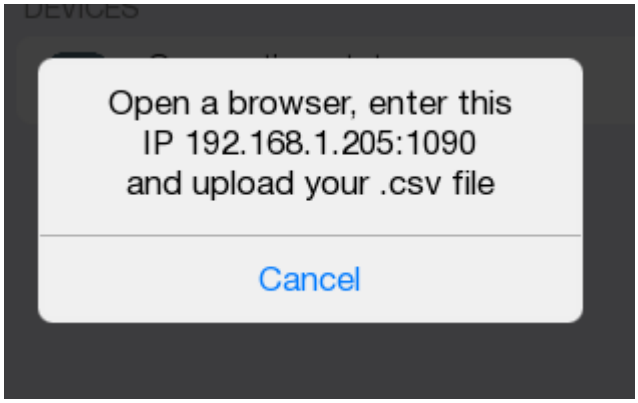
6 Open i3 lite project, add "Modbus TCP" module in the **Devices** tab.

7 Press "+" to add a new subdevice.

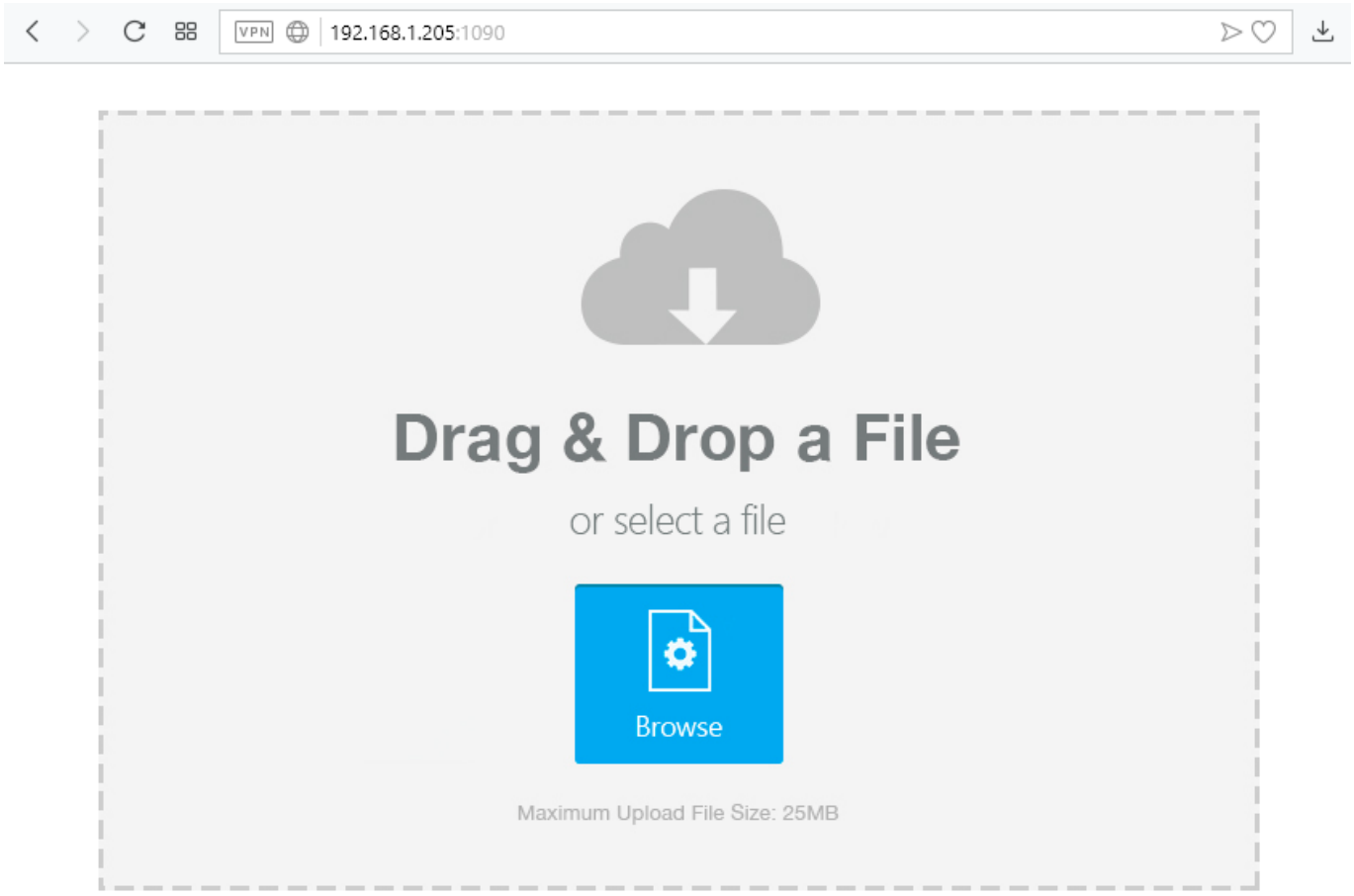
8 Press "down arrow" to import a .csv-file.



9 A message appears:

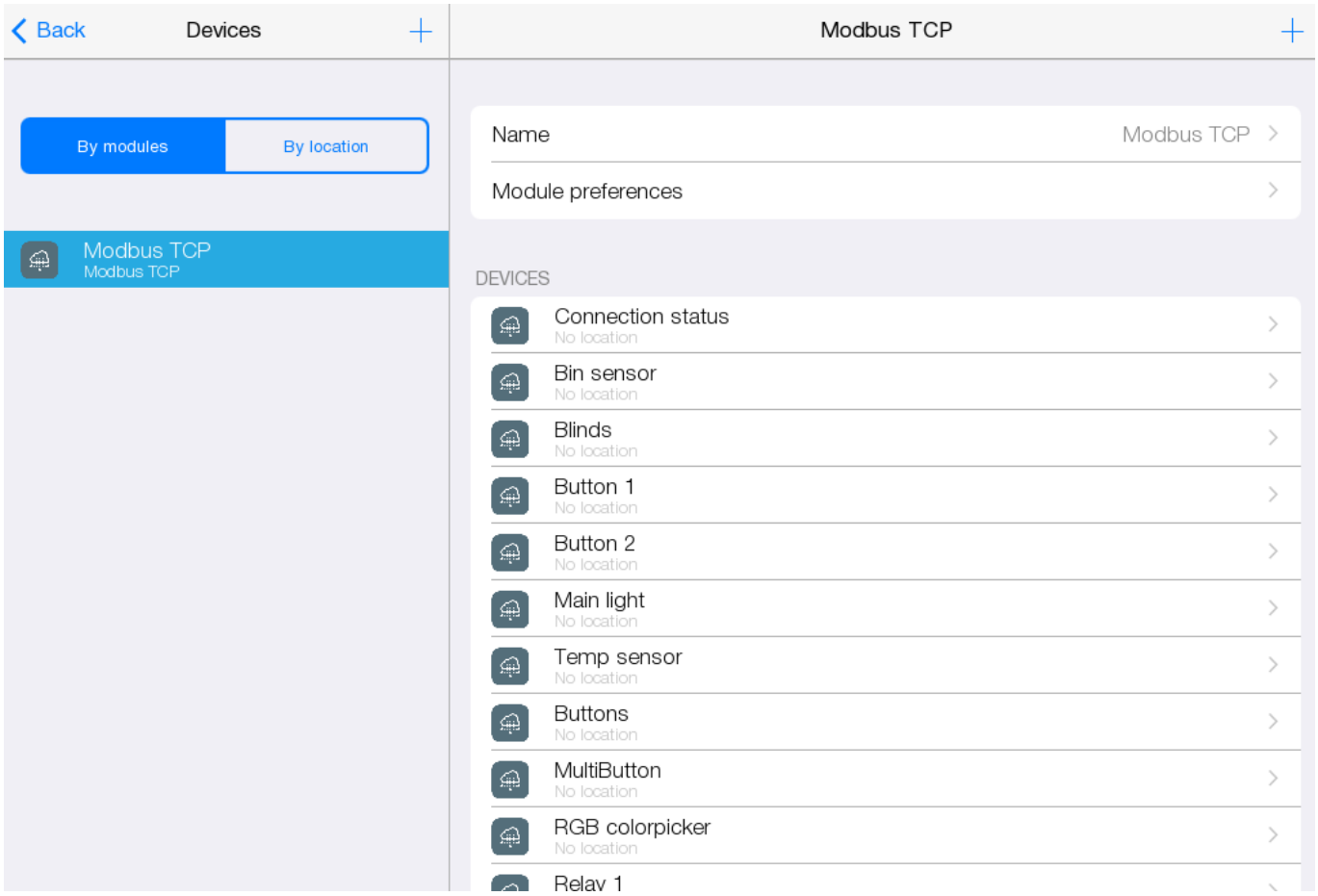


10 Enter the IP address of a panel, a colon and "1090" port number in the address bar of a browser. Press "Enter".



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.



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.