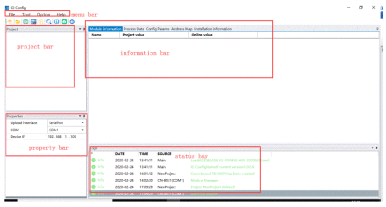

Odot IO-Config Configuration Software User Guide

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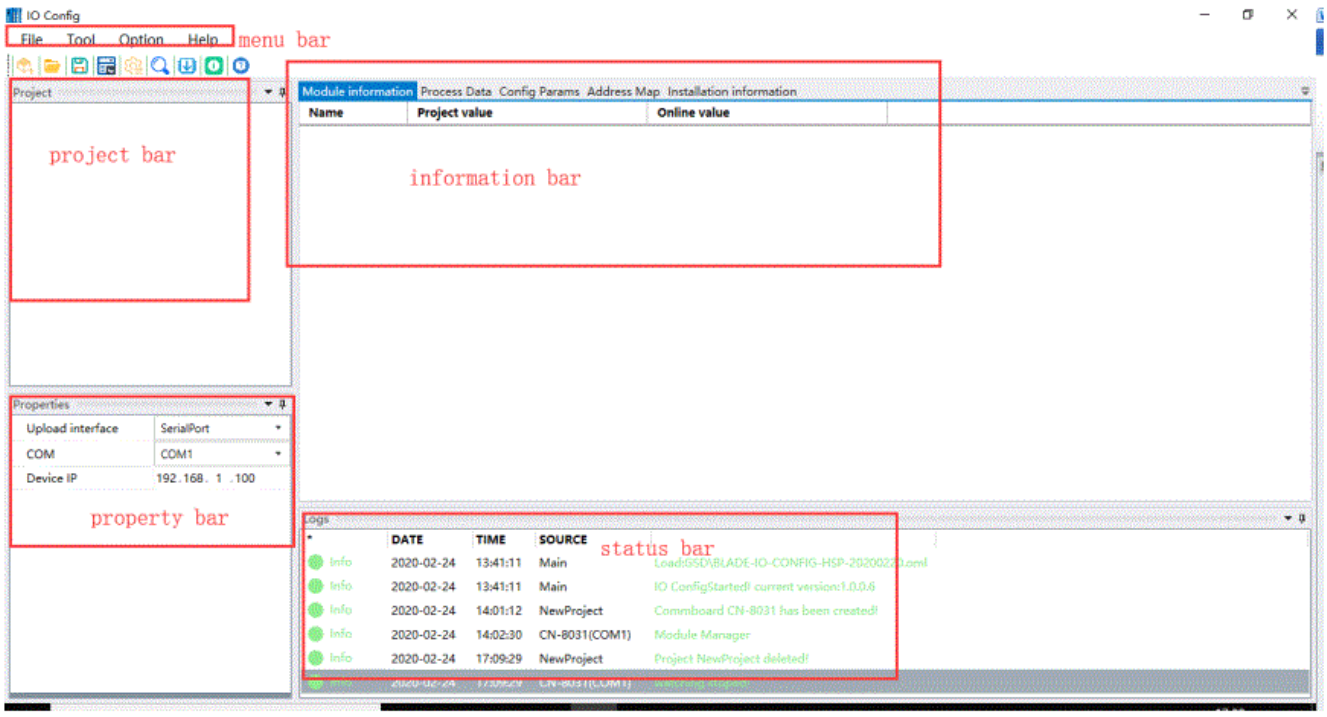
Odot IO-Config Configuration Software



Product Information

The IO-Config configuration software is used to configure Remote IO products. It enables functions such as parameter uploading and downloading, process data monitoring, data address table view, device search, and firmware upgrades. When using IO-Config to configure the software, the serial port supports all protocol adapters for parameter uploading, configuration parameter modification, and online monitoring. The ethernet port only supports the Modbus TCP adapter (CN-8031) for these functions.

The serial MicroUSB cable is required for data transmission and power supply. Some mobile USB cables only have the power supply function and cannot be used for adapter parameters uploading and downloading.

Product Usage Instructions

1. Find the installation package and install IO Config software. Open IO Config configuration software after installation.
2. In the menu bar, click File > Project > New Project, or use the shortcut key or right-click Project > New Project in the project bar. Fill in the project name.
3. In the project bar, right-click NewProject Module and select CN-8031 from the pop-up window. Then select one network port or serial port (if selecting the serial port, select the serial port number) and click OK. Note: All network adapter modules can connect to the configuration software for debugging through the serial port. Only the MODBUS TCP adapter can connect to the configuration software for debugging through both the Ethernet port and serial port.
4. In the project bar, right-click CN-8031 and click Module Manager. Double-click to select the detailed IO module that will be connected with CN8031 from the pop-up window and click OK.
5. To manually add modules, use the shortcut keys Ctrl C (copy), Ctrl V (paste), and Delete (delete). Select CN-8031 and click the shortcut Ctrl S to save the configuration project.
6. In the information bar, click Basic Information, Process Data, Configuration Parameters, Address Table, and Installation Information to view IO module information.
7. In the Basic Information interface, you can view the communication protocol and version information of the

current adapter module, as well as the module description and version information of the IO module.

8. In the Process Data interface, you can view the data type of the IO module, as well as the online monitoring value of the input data the online monitoring value, and the current value of the output data.

Software introduction

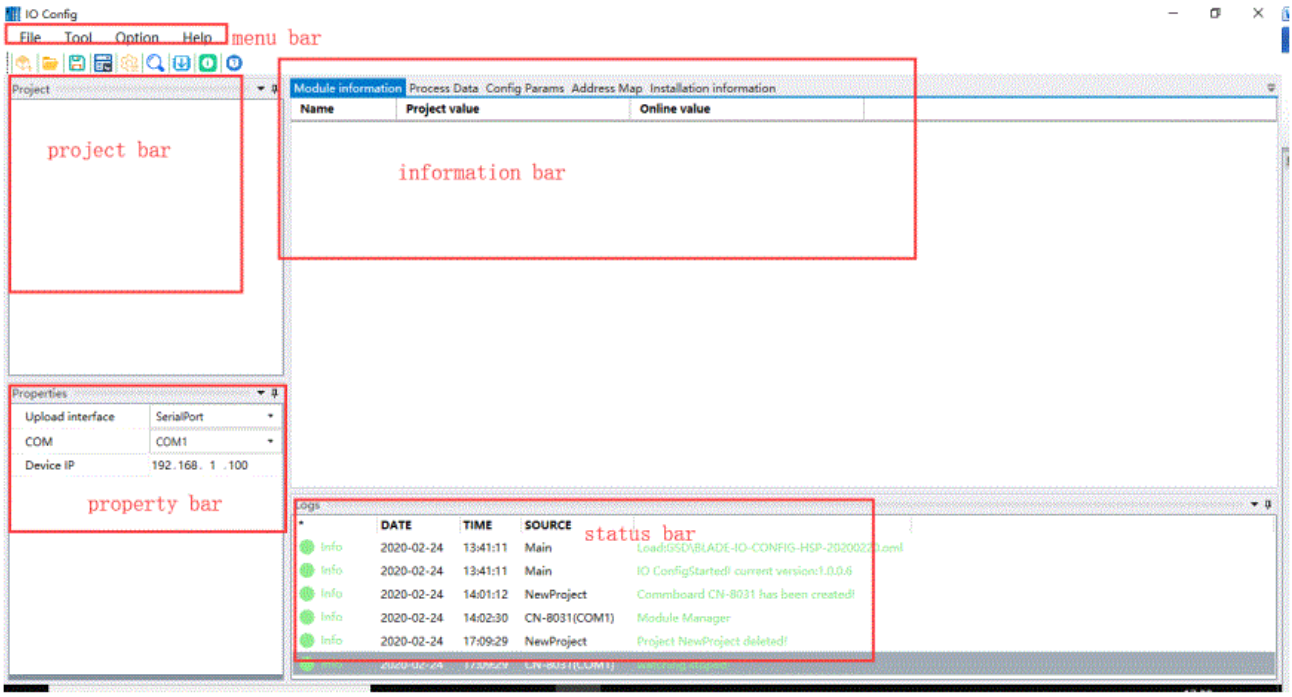
IO Config configuration software is used to configure Remote IO products, which could realize the module functions of parameter uploading and downloading, process data monitoring, data address table view, device search, firmware upgrade, etc.
Note: when using IO-Config to configure the software, the serial port supports all the protocol adapters for parameter uploading, configuration parameter modification, online monitoring, etc. The Ethernet port only supports the Modbus TCP adapter (CN-8031) for parameter uploading, configuration parameter modification, online monitoring, etc.
The serial MicroUSB cable is required for the function of data transmission and power supply. Some mobile USB cables only with a power supply function, and no data transmission function, so it cannot be used for adapter parameters uploading and downloading.

Offline configurations

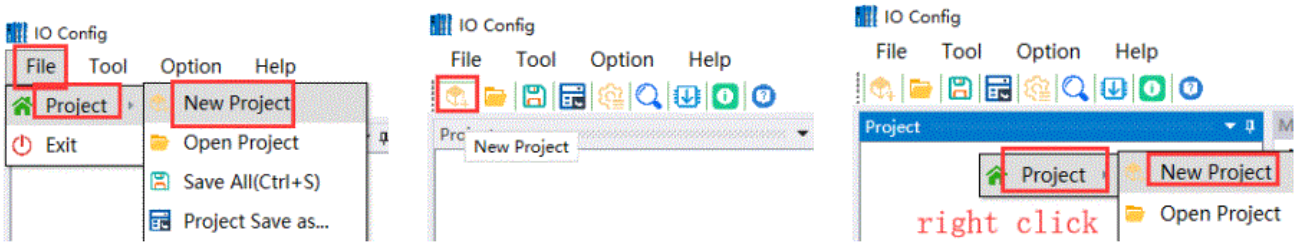
- When the device is disconnected from the software, the network adapter and IO module could be preselected according to the user's actual module needs, and the software will automatically generate the data address mapping table.
- The offline mode is mainly designed for the Modbus adapter, and the address in the address mapping table is the access address of IO module data. For another protocol adapter, the IO address of the device could be automatically generated after being configured in the configuration software of the host station system.

In offline mode, adding the module manually to view the address table is as below steps:

1. Find the installation package, click Install IO Config software, and open IO Config configuration software after installation.

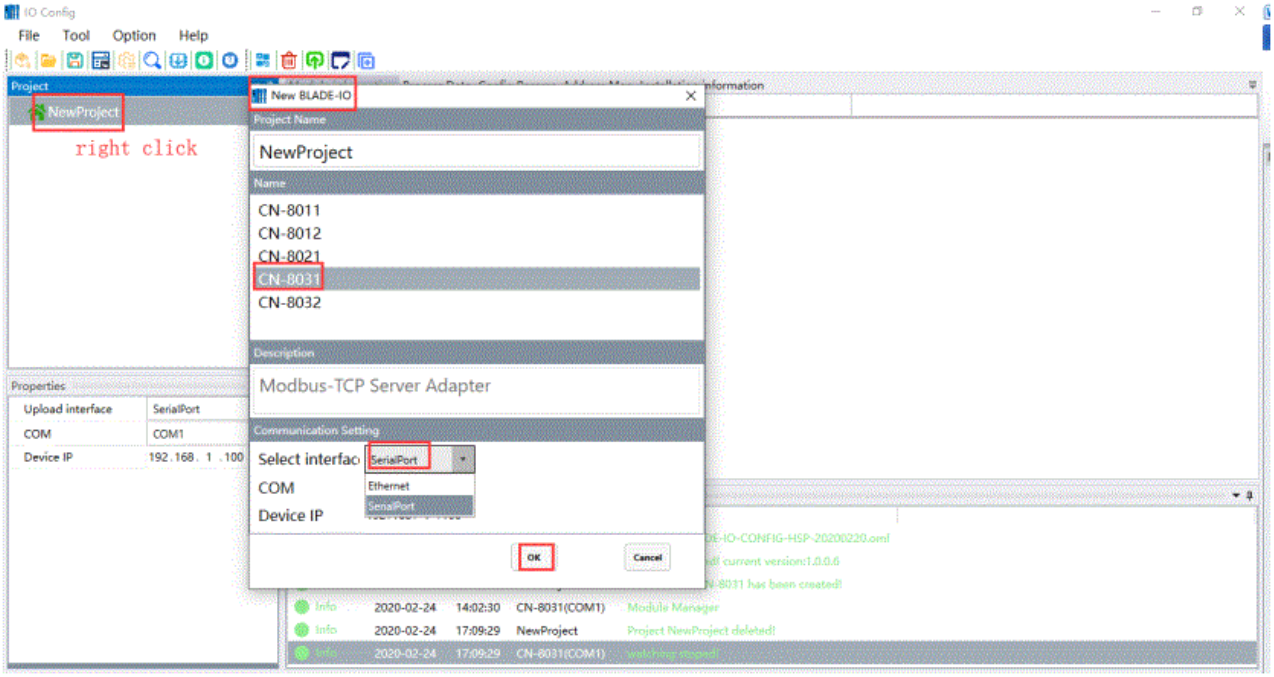


2. Click File→Project→New Project in the menu bar, or click the shortcut key or right-click Project→New Project in the project bar, and fill in the project name.

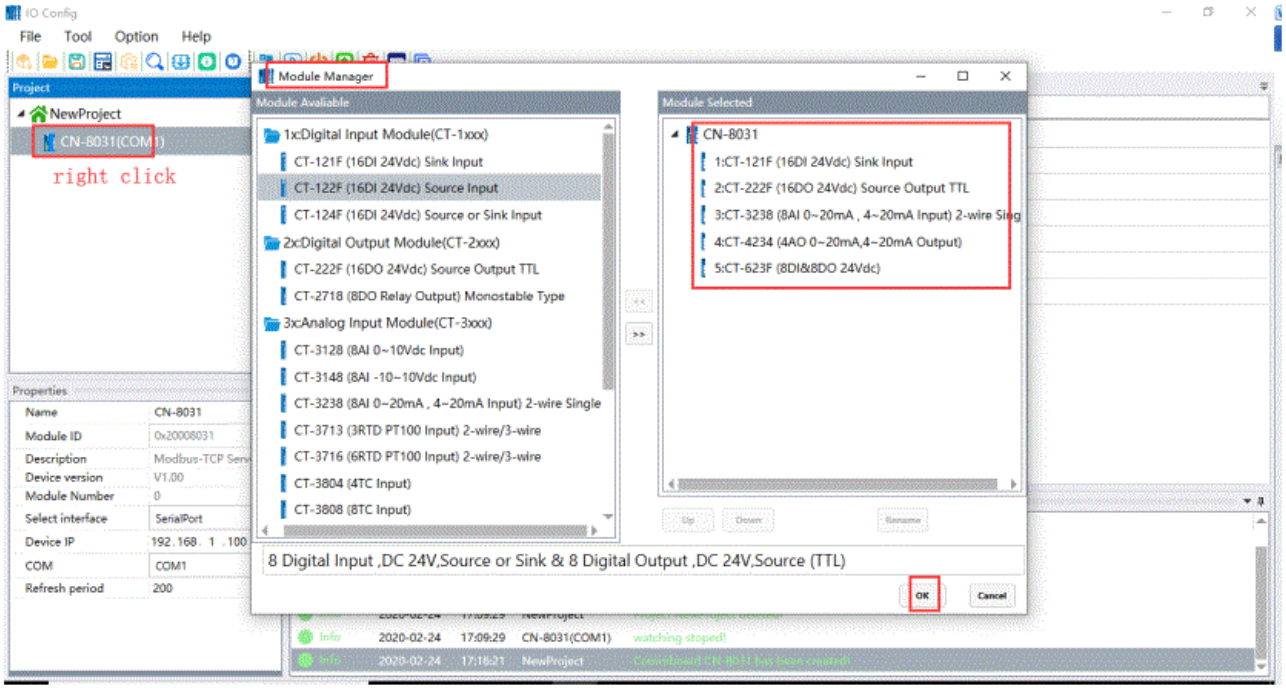


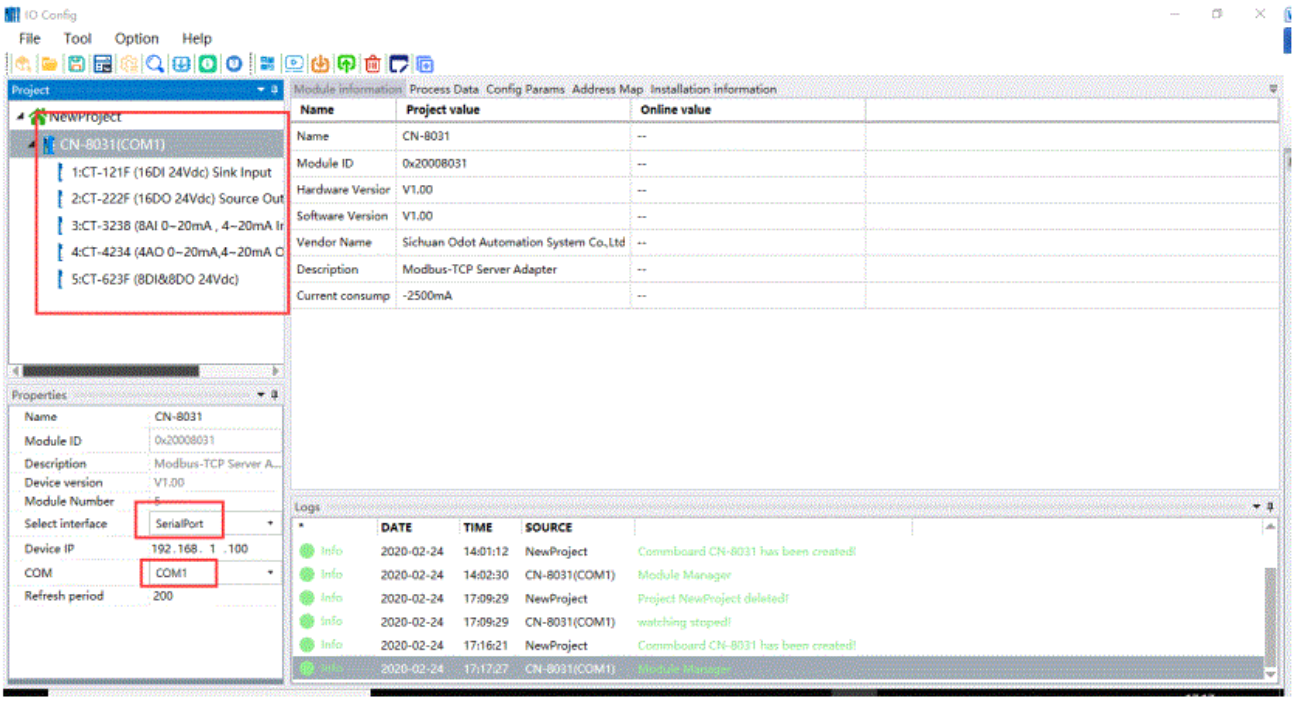
3. Right-click the NewProject Module in the project bar, and select CN-8031 In the pop-up window, then select one network port or serial port (if selecting serial port and it needs to select serial port number) and click OK.

   Note: All network adapter modules could connect to the configuration software for debugging through the serial port. Only MODBUS TCP adapter can connect to the configuration software for debugging both through the Ethernet port and serial port.



4. Right-click CN-8031→click Module Manager, Double-click to select the detailed IO module that will hang with CN8031 in the pop-up window, and click OK.

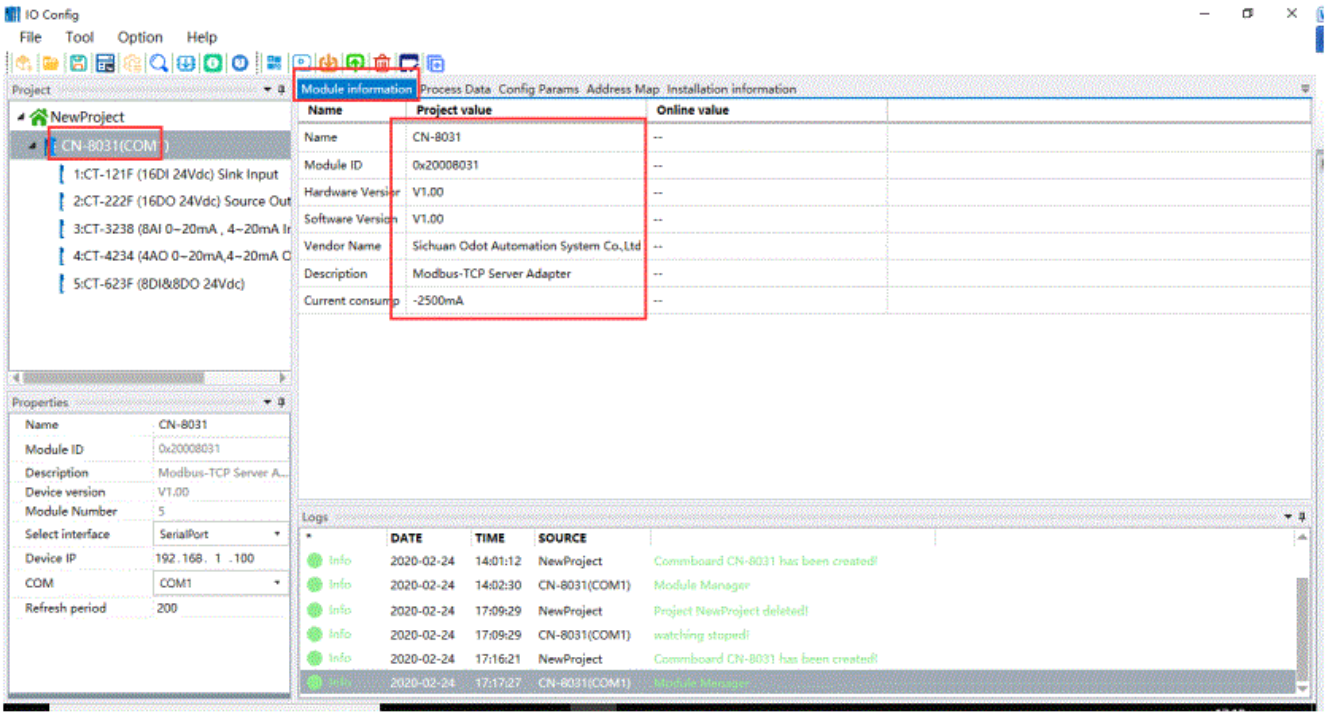




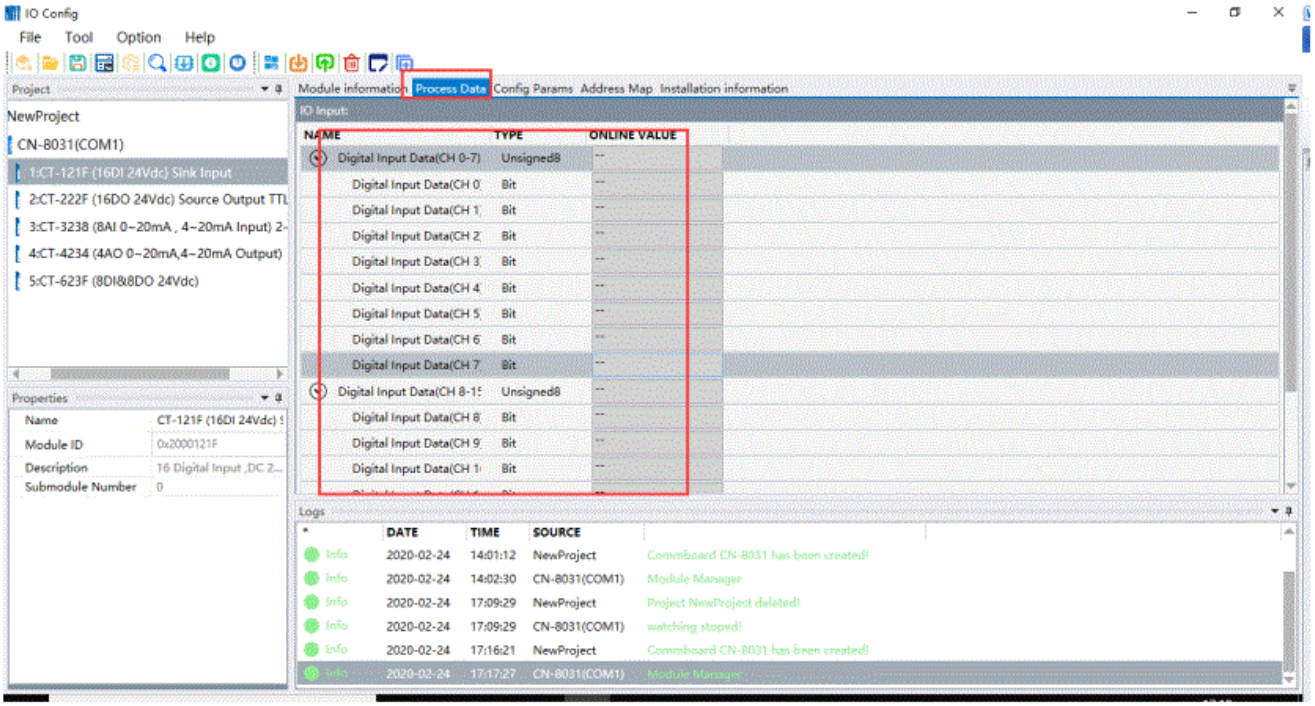
Module manually adding supports shortcut keys “Ctrl C”, “Ctrl V” and “Delete” for copy, paste and delete IO module. Select CN-8031 and click the shortcut “Ctrl S” to save the configuration project.

5. Click Basic Information, Process Data, Configuration Parameters, Address Table and Installation Information in the information bar to view IO module information.

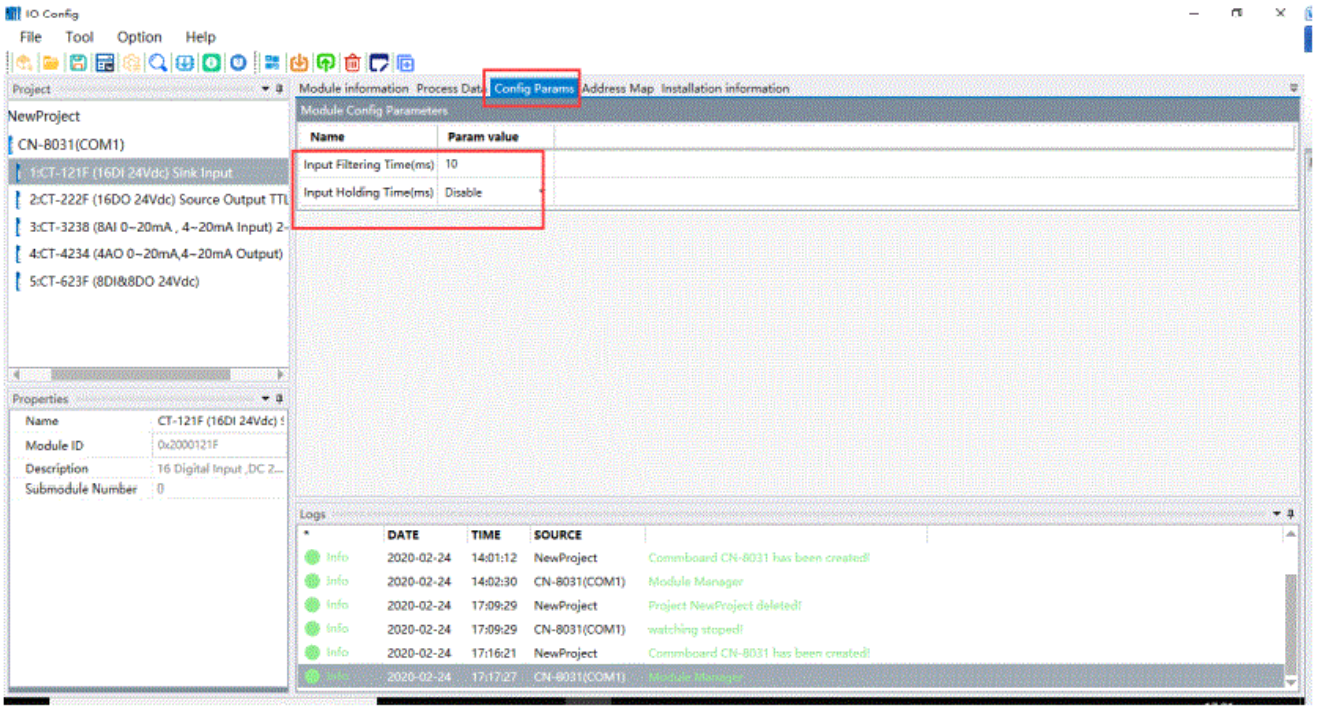
In the Basic Information interface, you can view the communication protocol and version information of the current adapter module, and the module description and version information of the IO module.



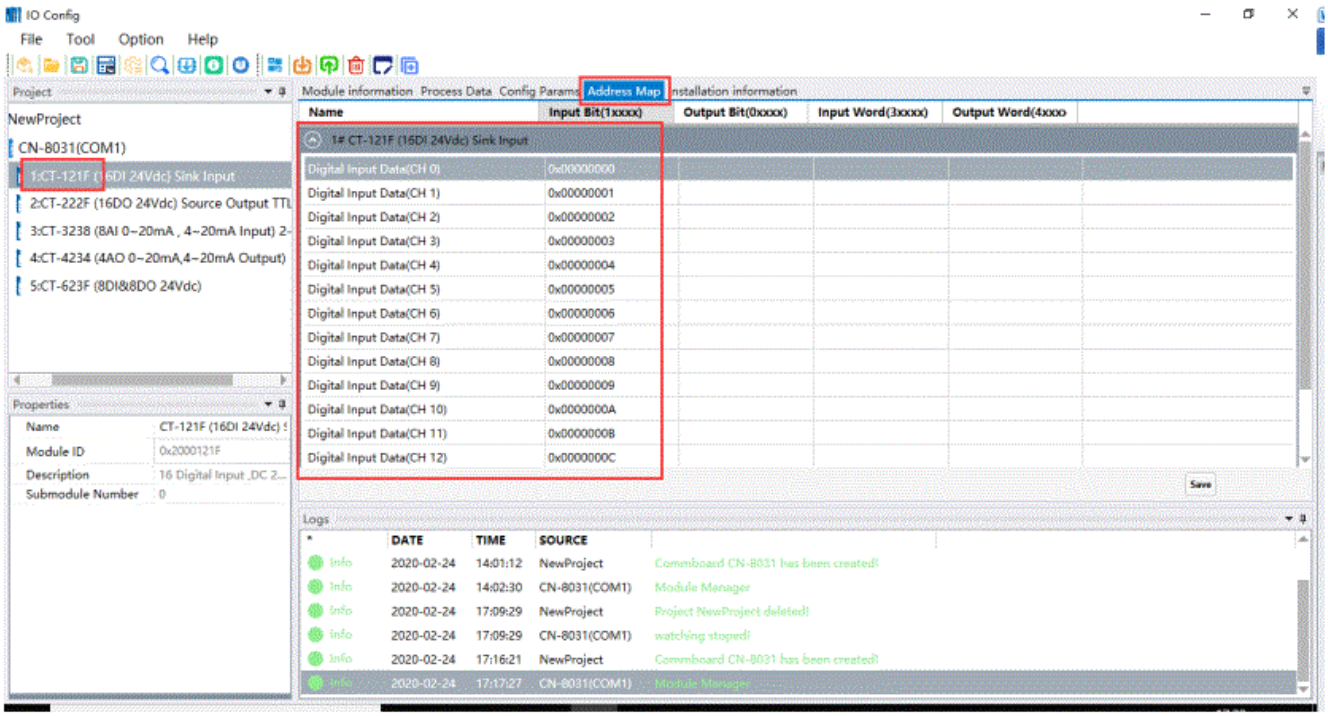
In the Process Data interface, you can view the data type of the IO module, as well as the online monitoring value of the input data, and the online monitoring value and the current value of the output data.

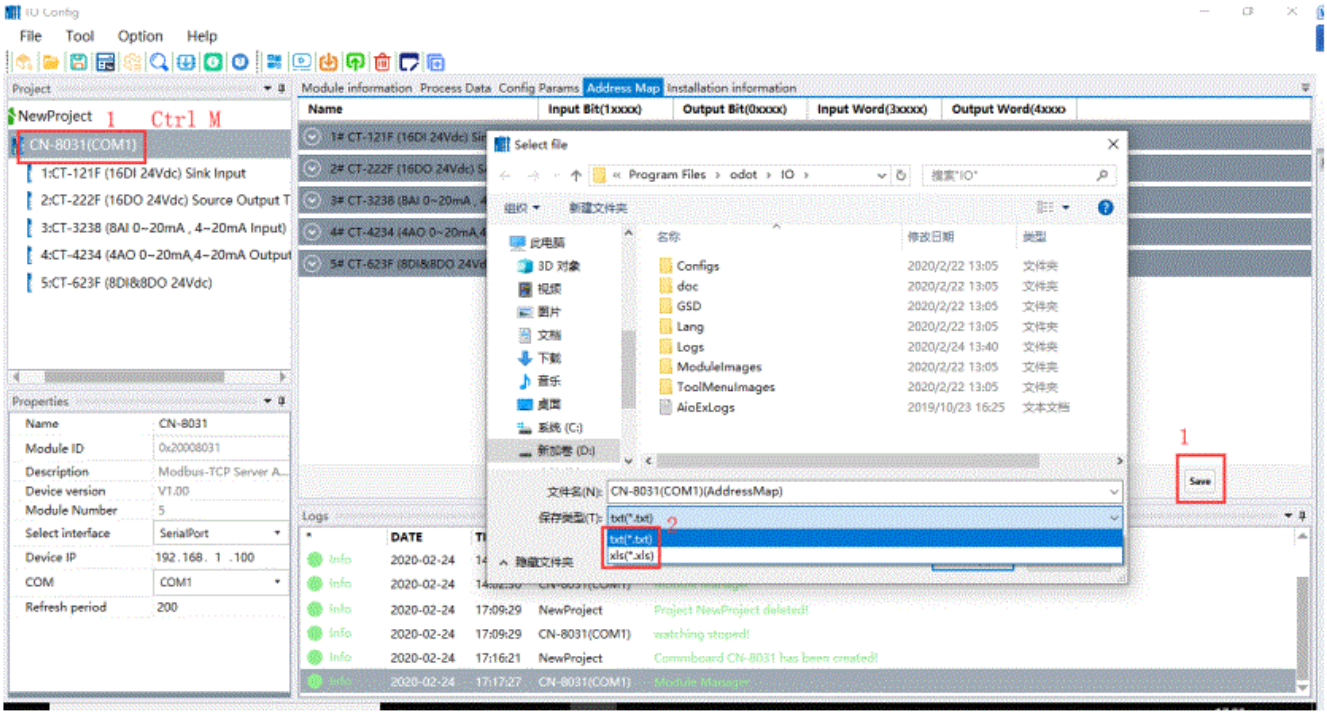


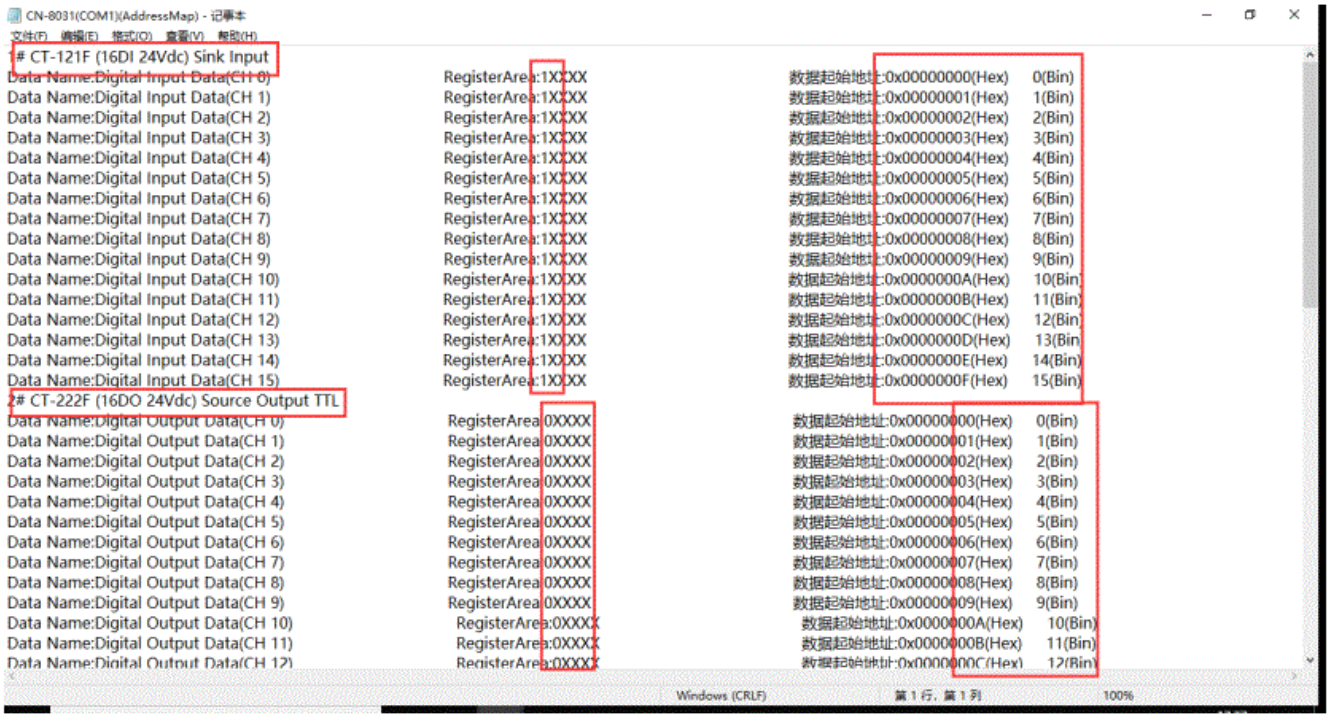
In the Configuration Parameters interface, the configuration parameters and communication parameters of the adapter module cdoul be set. Configuration parameters of IO module could be set.

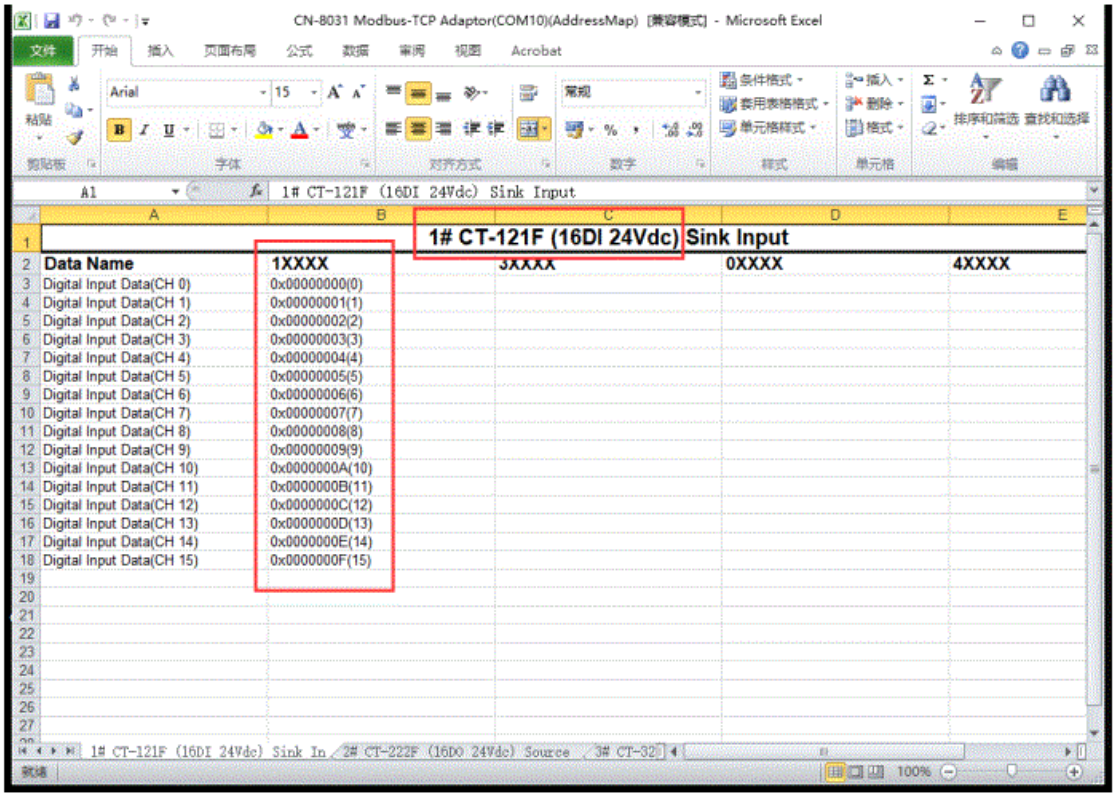


In the Address Map interface, you can view the channel address of the IO module. Click the address table save button or the shortcut “Ctrl M” to export the address table. And address table format is TXT or XLS.

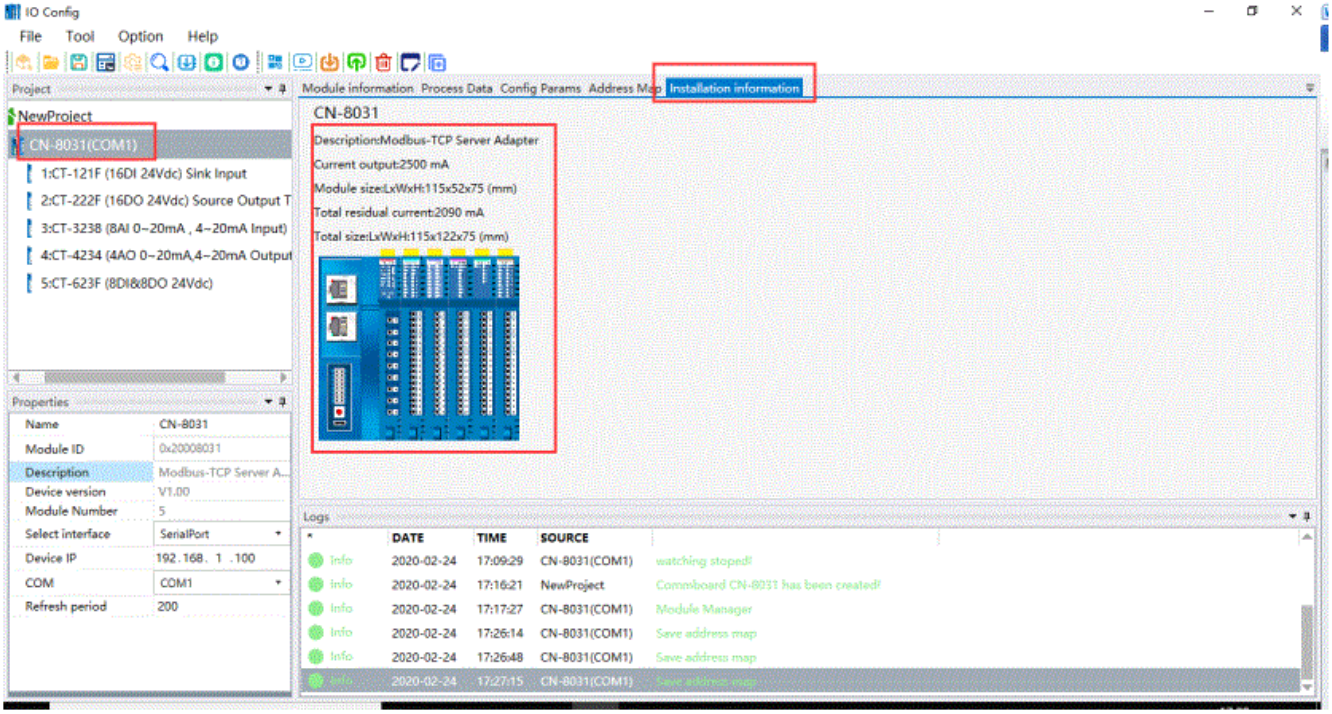

IO Config
File Tool Option Help
Project
NewProject
CN-8031(COM1)
1:CT-121F (16DI 24Vdc) Sink Input
2:CT-222F (16DO 24Vdc) Source Output TTL
3:CT-3238 (8AI 0~20mA , 4~20mA Input) 2-
4:CT-4234 (4AO 0~20mA,4~20mA Output)
5:CT-623F (8DI&8DO 24Vdc)
Module information Process Data Config Params Address Map Installation information
Name
Input Bit(1xxxx)
Output Bit(0xxxx)
Input Word(3xxxx)
Output Word(4xxxx
1# CT-121F (16DI 24Vdc) Sink Input
Digital Input Data(CH 0) 0x00000000
Digital Input Data(CH 1) 0x00000001
Digital Input Data(CH 2) 0x00000002
Digital Input Data(CH 3) 0x00000003
Digital Input Data(CH 4) 0x00000004
Digital Input Data(CH 5) 0x00000005
Digital Input Data(CH 6) 0x00000006
Digital Input Data(CH 7) 0x00000007
Digital Input Data(CH 8) 0x00000008
Digital Input Data(CH 9) 0x00000009
Digital Input Data(CH 10) 0x0000000A
Digital Input Data(CH 11) 0x0000000B
Digital Input Data(CH 12) 0x0000000C
Save
Properties
Name CT-121F (16DI 24Vdc) 5
Module ID 0x2000121F
Description 16 Digital Input ,DC 2...
Submodule Number 0
Logs
DATE TIME SOURCE
Info 2020-02-24 14:01:12 NewProject Commboard CN-8031 has been created!
Info 2020-02-24 14:02:30 CN-8031(COM1) Module Manager
Info 2020-02-24 17:09:29 NewProject Project NewProject deleted!
Info 2020-02-24 17:09:29 CN-8031(COM1) watching stoped!
Info 2020-02-24 17:16:21 NewProject Commboard CN-8031 has been created!
Info 2020-02-24 17:17:27 CN-8031(COM1) Module Manager


IO Config
File Tool Option Help
Project
NewProject 1 Ctrl M
CN-8031(COM1)
1:CT-121F (16DI 24Vdc) Sink Input
2:CT-222F (16DO 24Vdc) Source Output T
3:CT-3238 (8AI 0~20mA , 4~20mA Input)
4:CT-4234 (4AO 0~20mA,4~20mA Output
5:CT-623F (8DI&8DO 24Vdc)
Module information Process Data Config Params Address Map Installation information
Name
Input Bit(1xxxx)
Output Bit(0xxxx)
Input Word(3xxxx)
Output Word(4xxxx
Select file
Program Files odot IO
搜索"IO"
组织 新建文件夹
此电脑
3D 对象
视频
图片
文档
下载
音乐
桌面
系统 (C:)
新加卷 (D:)
名称
修改日期
类型
Configs 2020/2/22 13:05 文件夹
doc 2020/2/22 13:05 文件夹
GSD 2020/2/22 13:05 文件夹
Lang 2020/2/22 13:05 文件夹
Logs 2020/2/24 13:40 文件夹
ModuleImages 2020/2/22 13:05 文件夹
ToolMenuImages 2020/2/22 13:05 文件夹
AioExLogs 2019/10/23 16:25 文本文档
文件名(N): CN-8031(COM1)(AddressMap)
保存类型(T): txt(*.txt) 2
txt(*.txt)
xls(*.xls)
隐藏文件夹
1
Save
Properties
Name CN-8031
Module ID 0x20008031
Description Modbus-TCP Server A...
Device version V1.00
Module Number 5
Select interface SerialPort
Device IP 192.168. 1 .100
COM COM1
Refresh period 200
Logs
DATE
Info 2020-02-24 17:09:29 NewProject Project NewProject deleted!
Info 2020-02-24 17:09:29 CN-8031(COM1) watching stoped!
Info 2020-02-24 17:16:21 NewProject Commboard CN-8031 has been created!
Info 2020-02-24 17:17:27 CN-8031(COM1) Module Manager





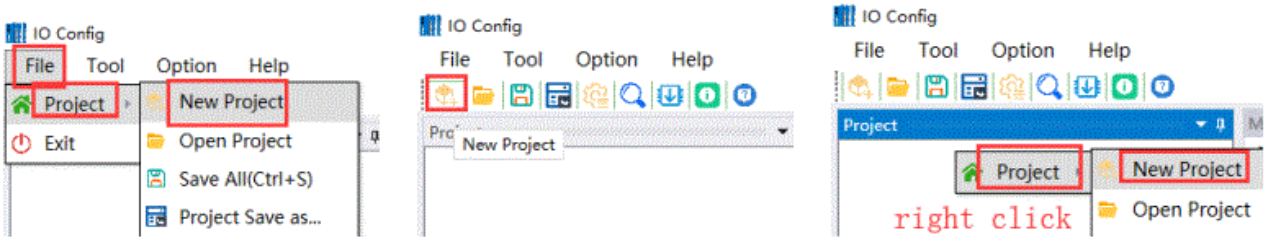
In the Installation Information interface, you can check the current, size and other parameters of the module.



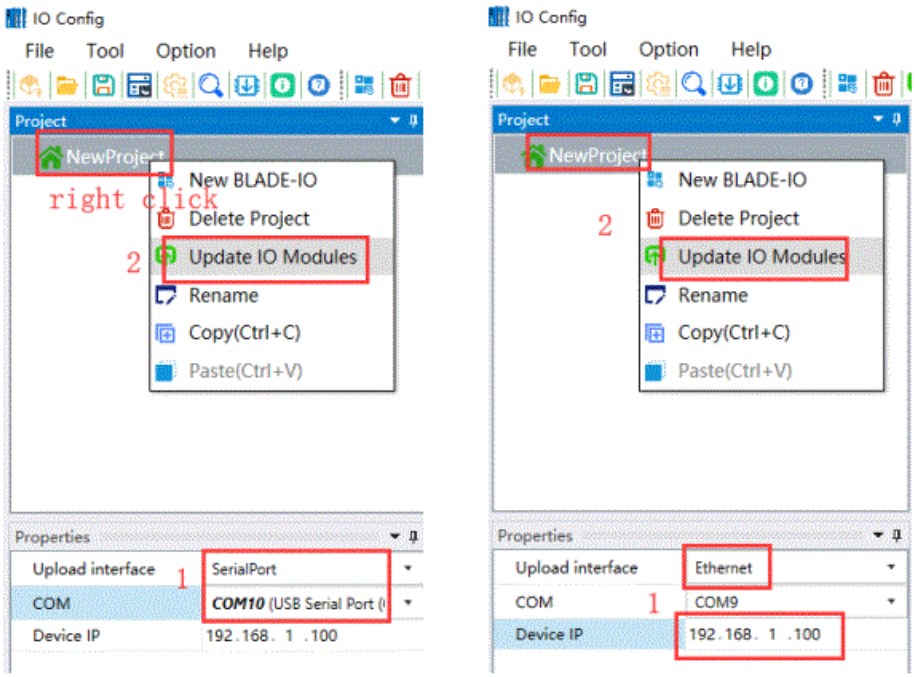
Online configurations

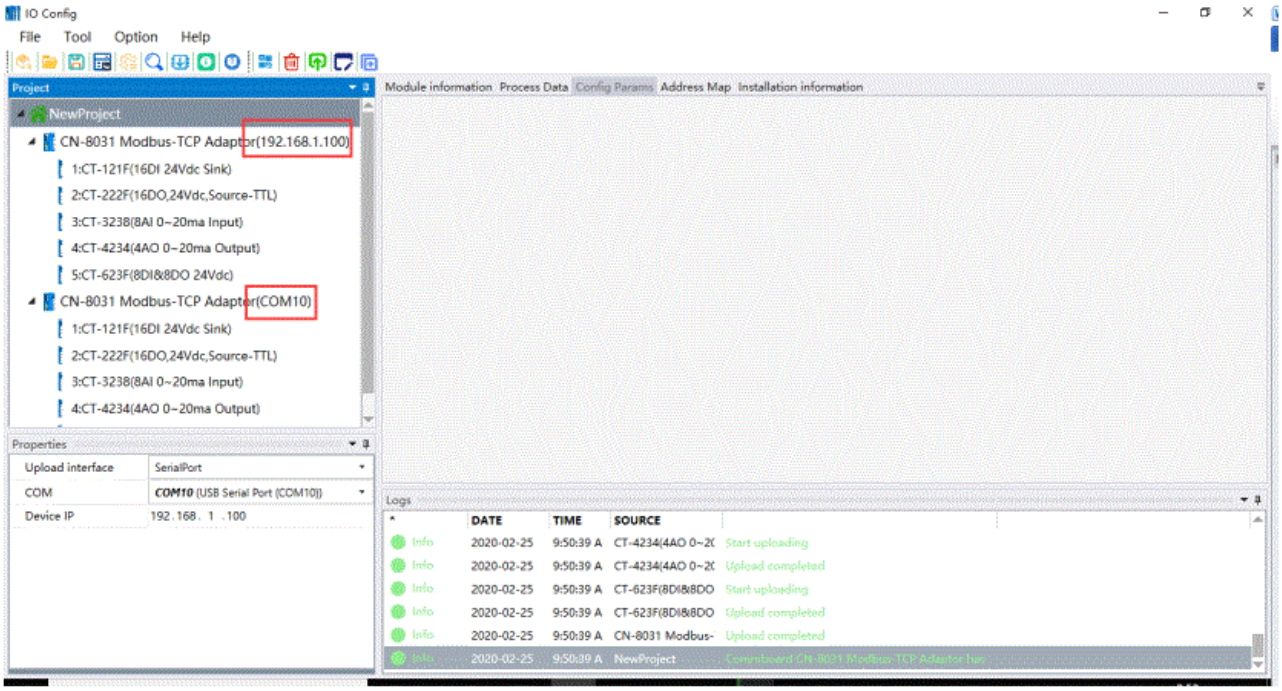
Supplying 24V power to the module, and connect the module to the computer with a Micro USB or network cable (a Micro USB cable needs to install a driver, and the COM port will be automatically assigned after the driver installation, such as COM3).

1. After installing IO Config software, open the configuration software, and click File→Project→New Project in the menu bar, or click the shortcut of New Project, or right-click Project→New Project in the project menu bar, and manually fill in the project name.



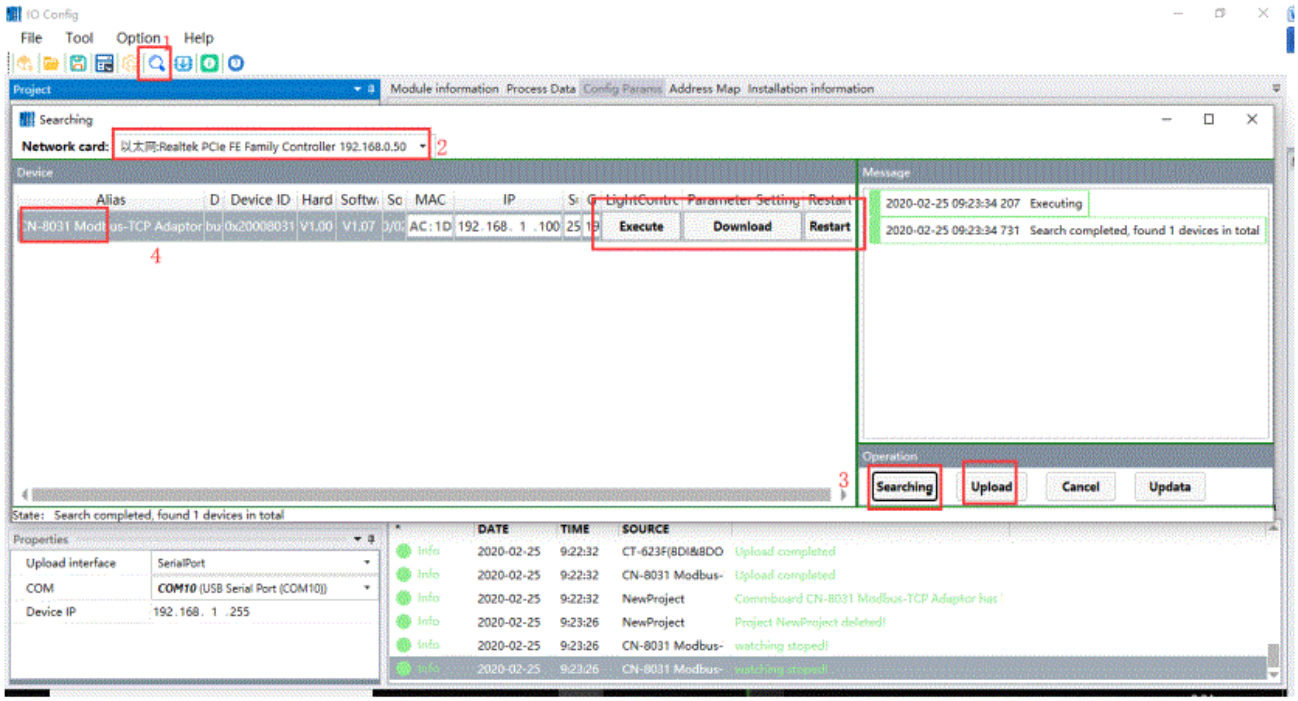
2. In the Property bar, modify the upload interface by selecting serial port and the serial port number is COM10, or modify the upload interface to select Ethernet. The device IP address: 192.168.1.100 (MODBUS TCP communication only). Right-click on the project menu.

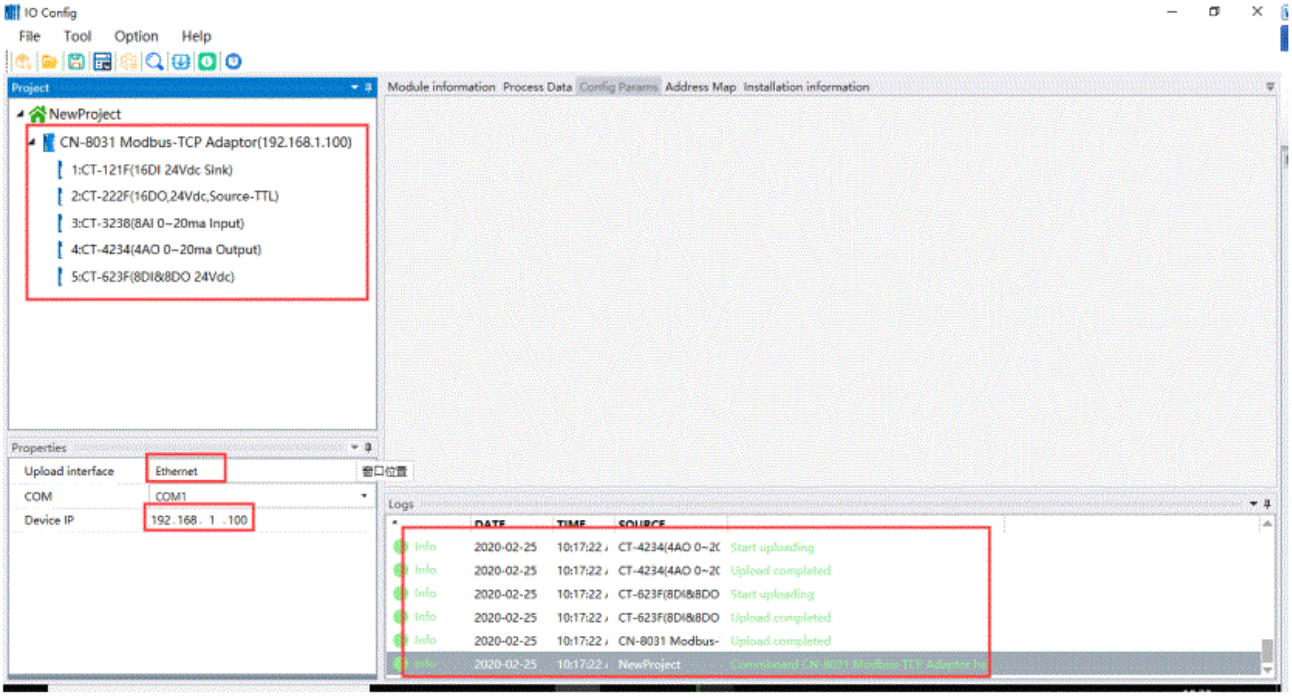




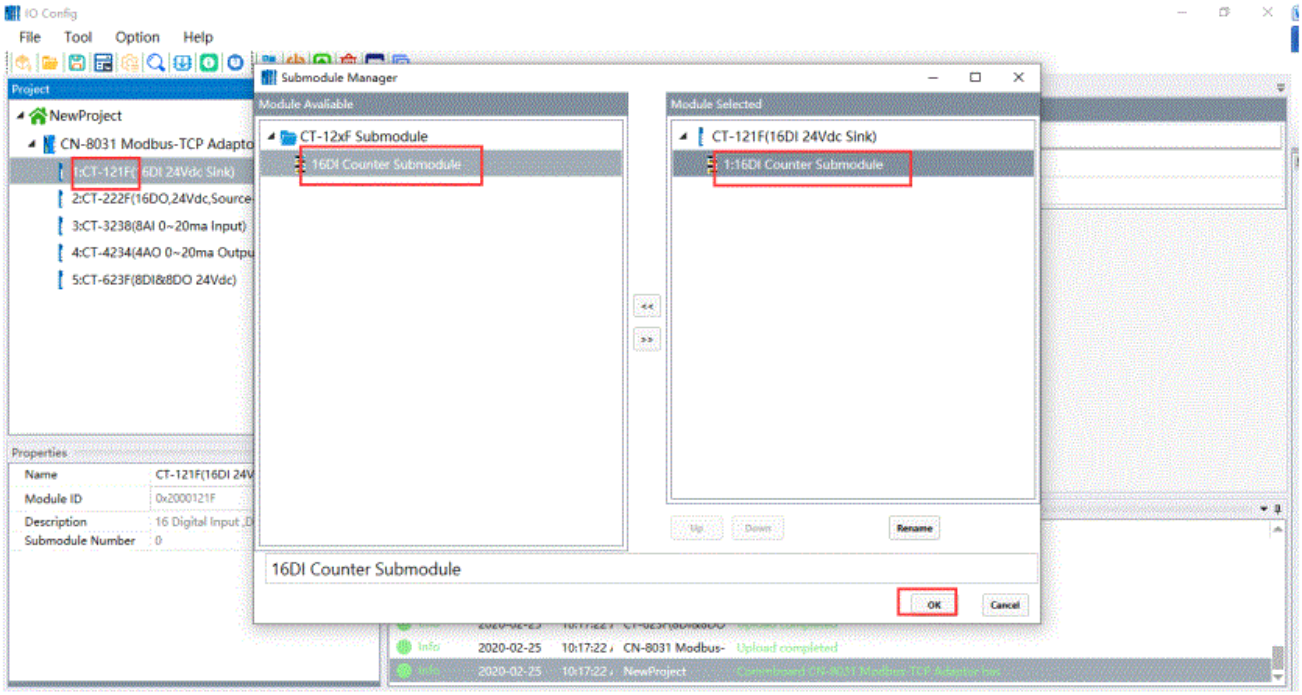
When the adapter module is CN-8031 (MODBUS TCP communication), click Tool to search device or click the shortcut to search device, select the Local Network Card in the pop-up interface, then click Search Device, and all adapter modules in the network structure will be scanned in the device list. In this interface, it could view parameters such as the version of adapter hardware and software, IP address and so on. When there are multiple adapters in the network, it supports the function of “Light Up” to find the device, “Download” to modify the adapter IP address and “Restart”. When firmware needs to be upgraded, click “Upgrade” to enter the upgrade interface.

Clicking “Upload” and all IO modules will be uploaded automatically in the project menu.

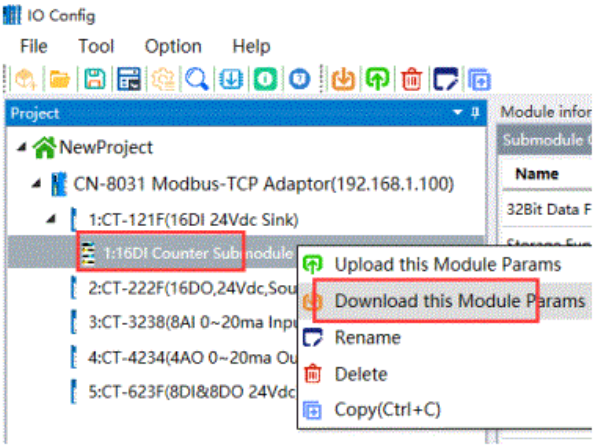


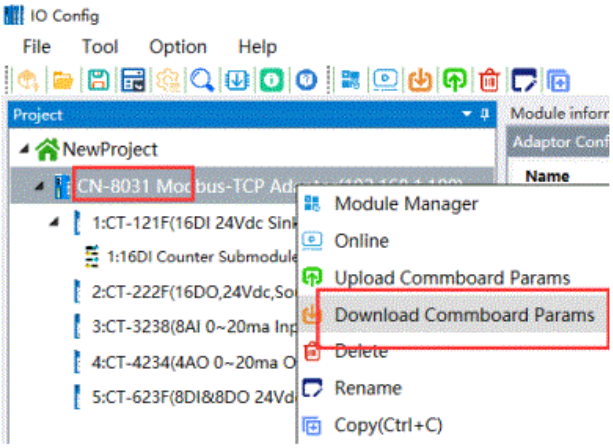


For the digital input module, you can manually add the counting sub-module.

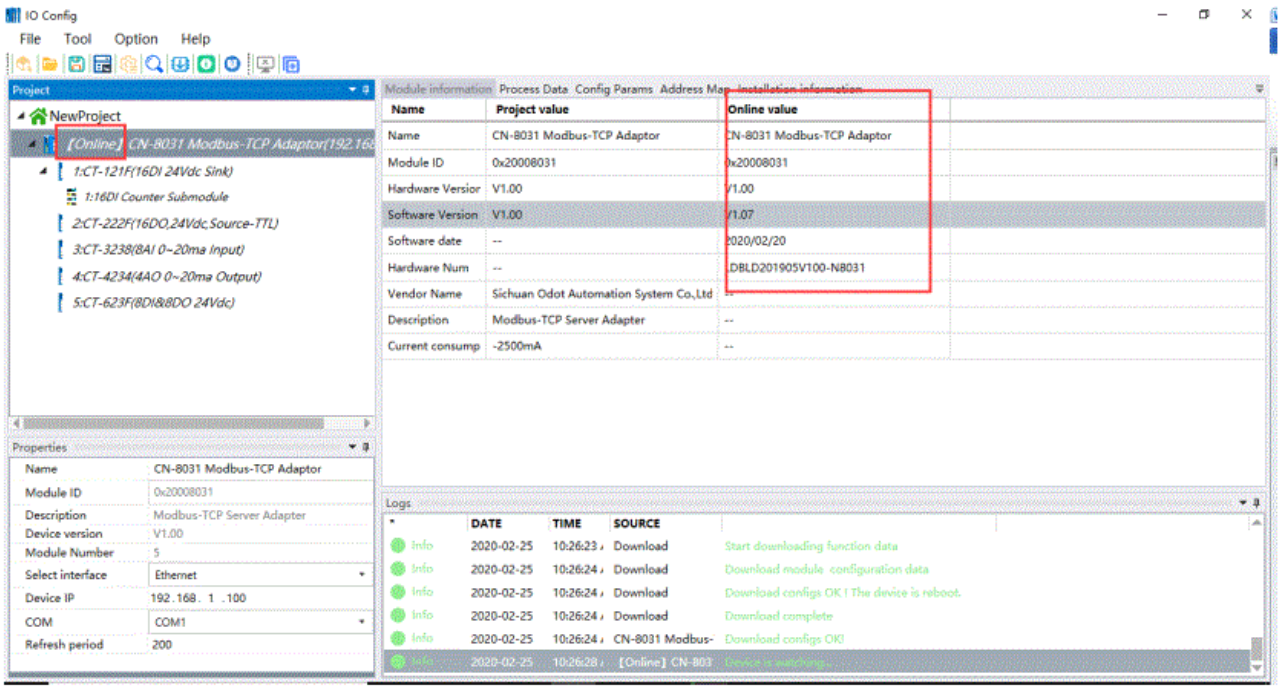


After adding a sub-module, you must right-click to download the module configuration or right-click CN-8031 to download IO parameters. Otherwise, if clicking directly online and it will result in an error in the state menu of “the number of sub-modules does not match the total number of configuration sub-modules”.

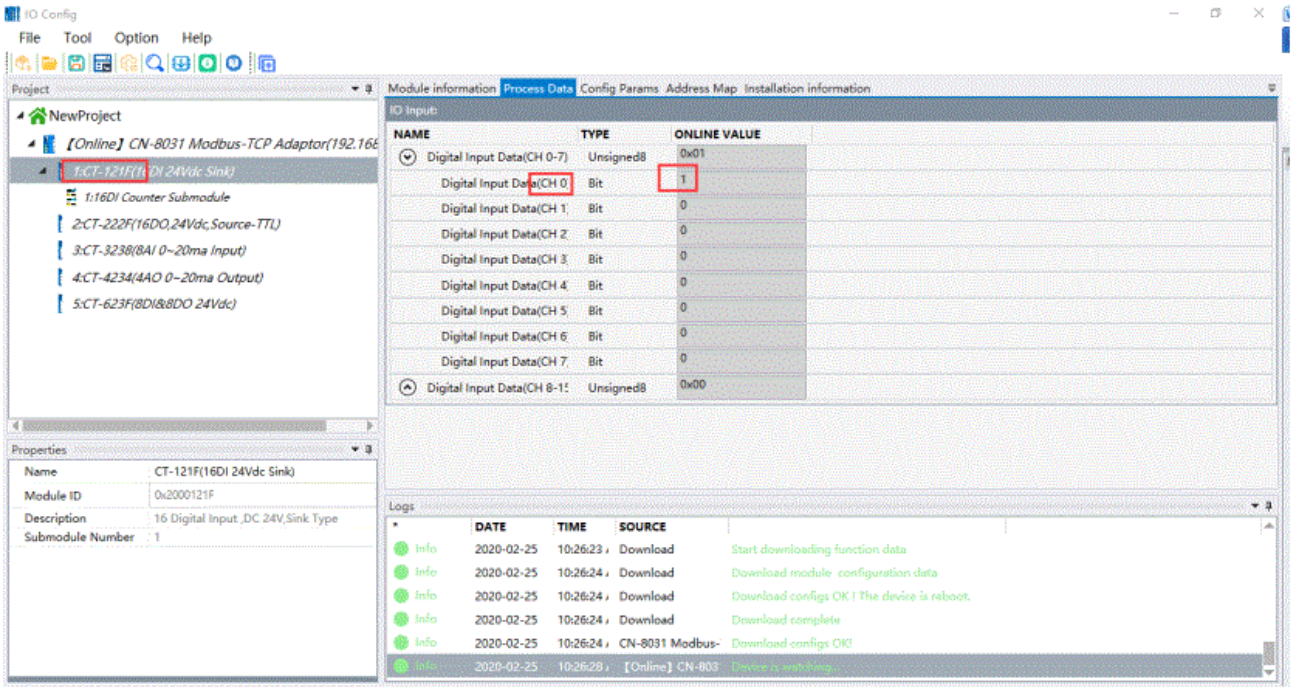




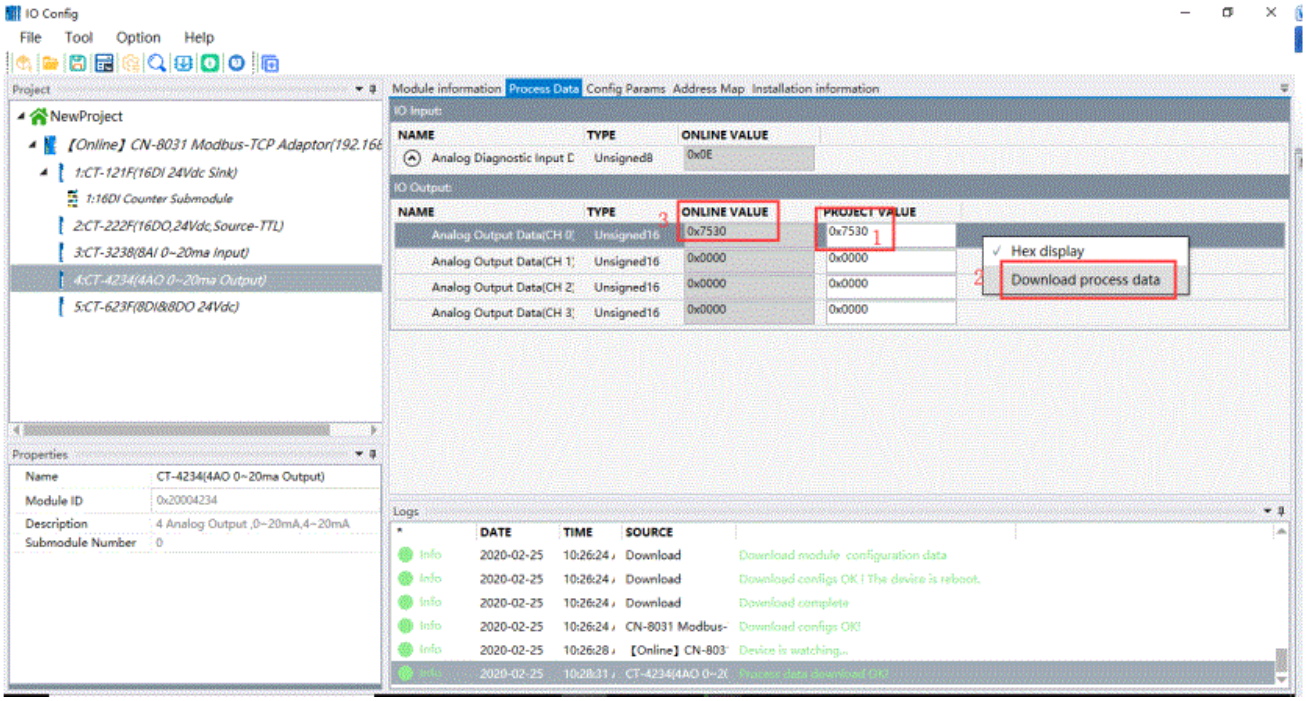
3. Right-click the adapter module CN-8031 and click online. It could monitor the IO module data online.

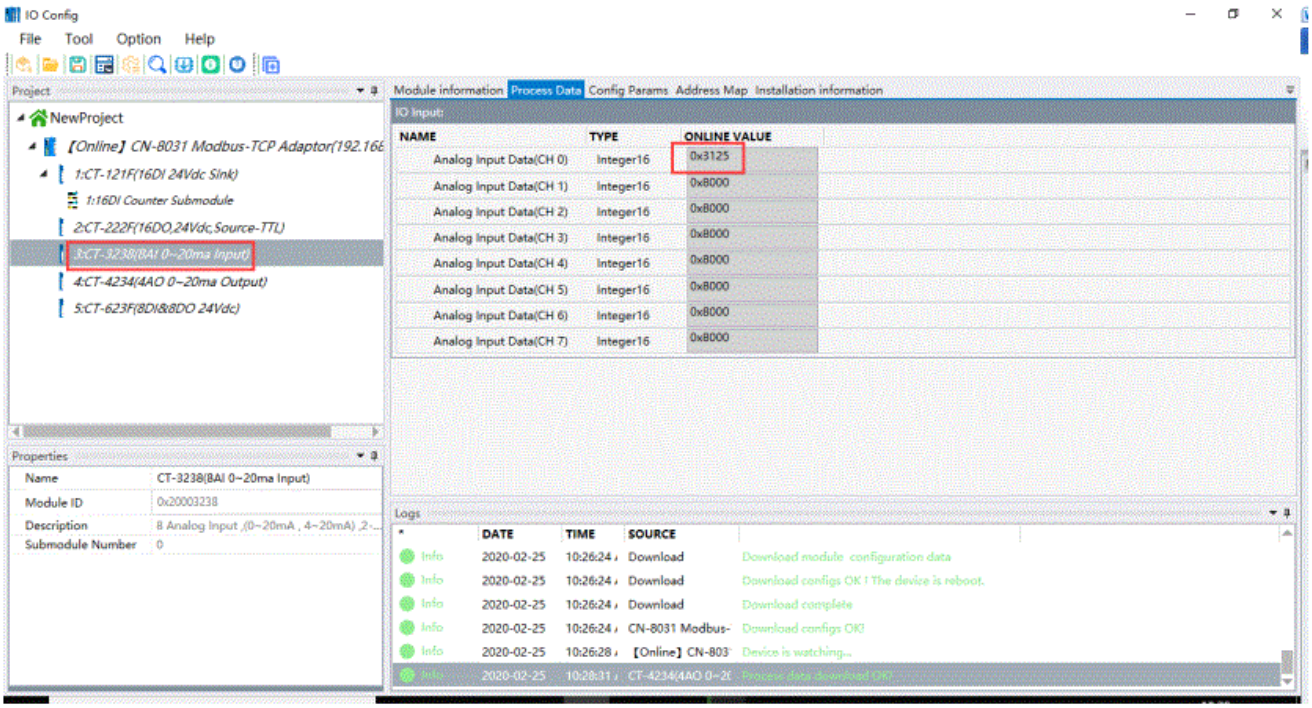


Example: CT-121F in slot 1, the external power 24VDC is supplied to the DI0 of CT-121F. And in the process data interface, the CH0 monitoring value is 1.

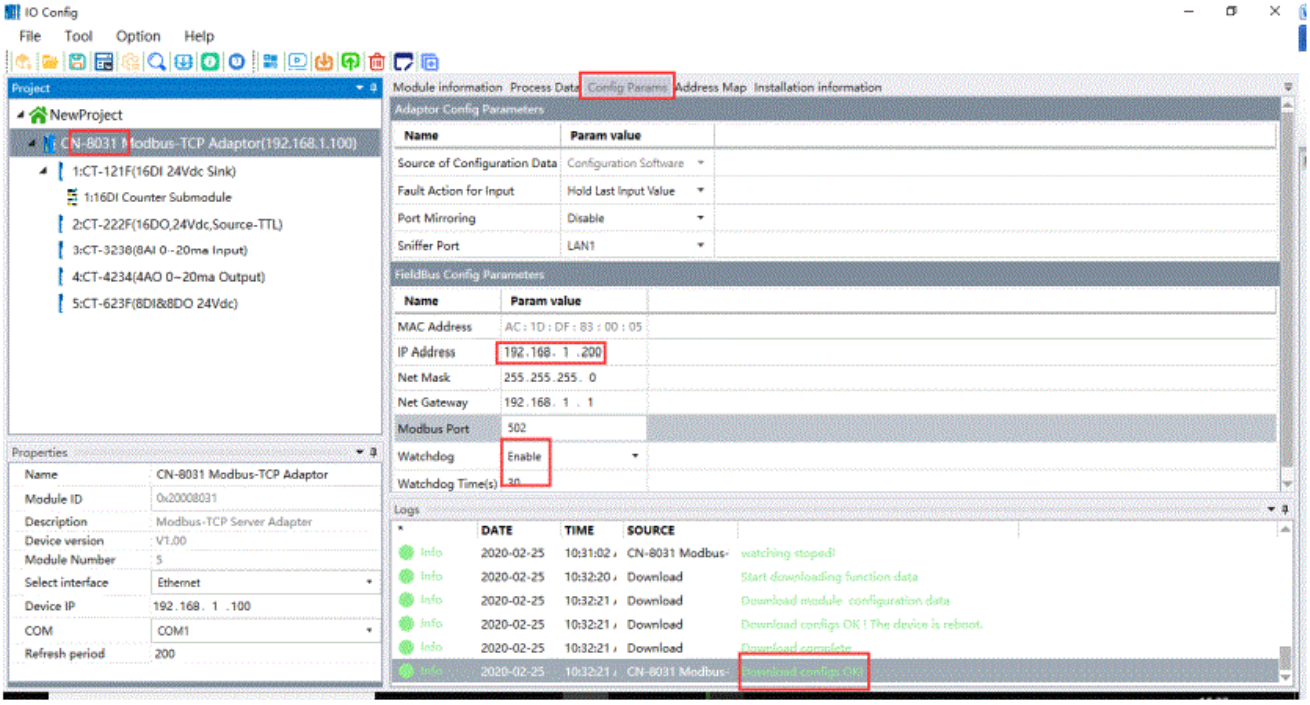


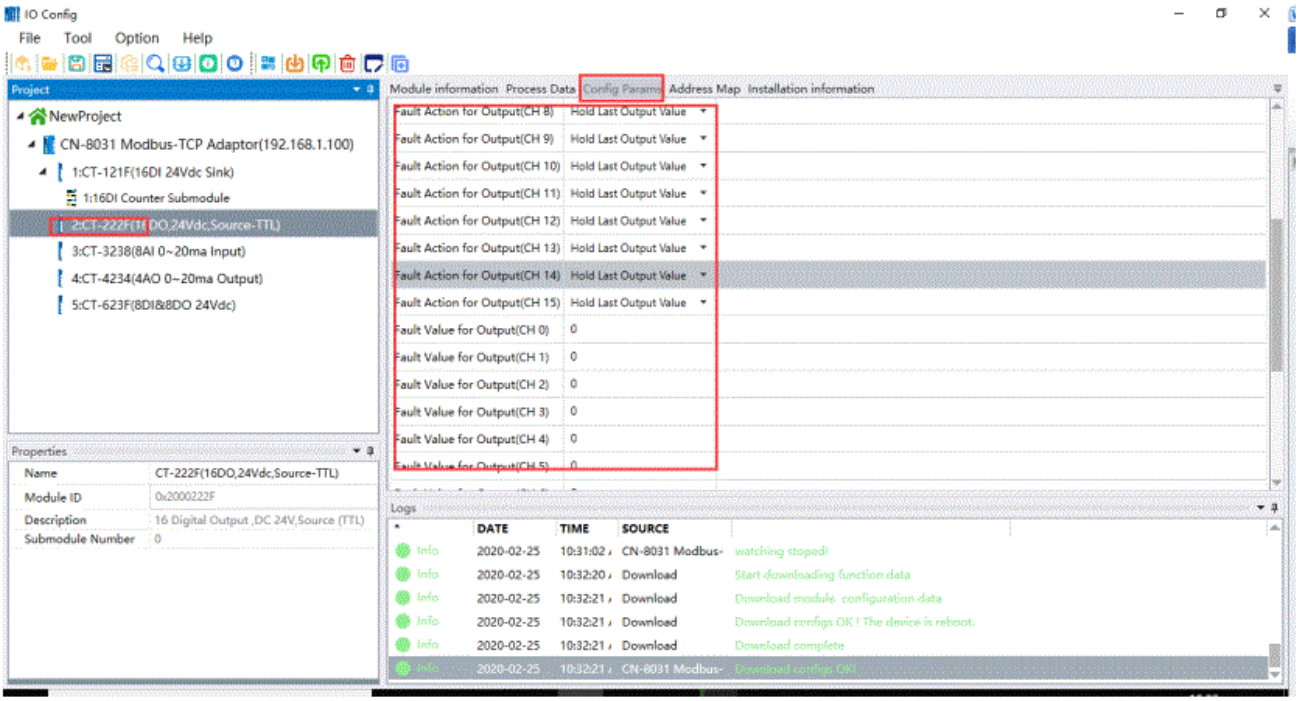
Example: Assigning the CH0 channel of CT-4234 in slot 4 to 16#7530= 30000, and connect it to the CH0 channel of CT-3238 in slot 3 at the same time.The CH0 of CT-3238 monitoring value is 16#3125.



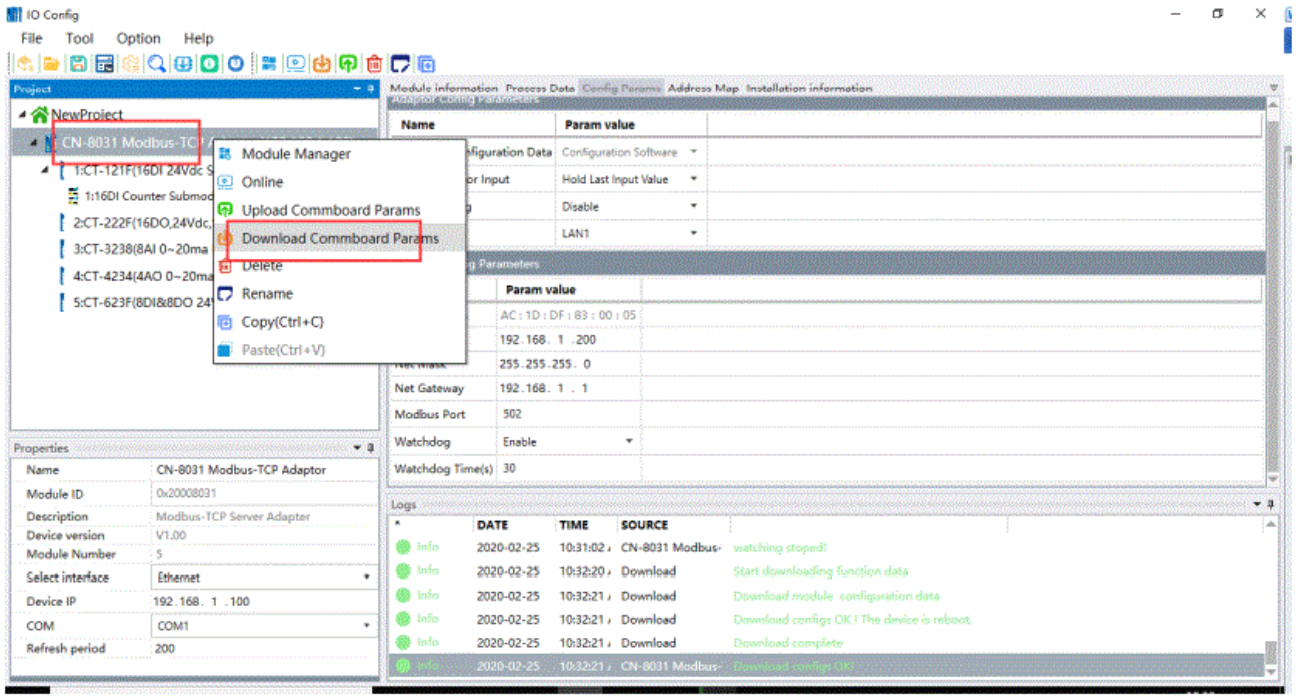


4. Configuration parameters can be modified in the configuration interface.

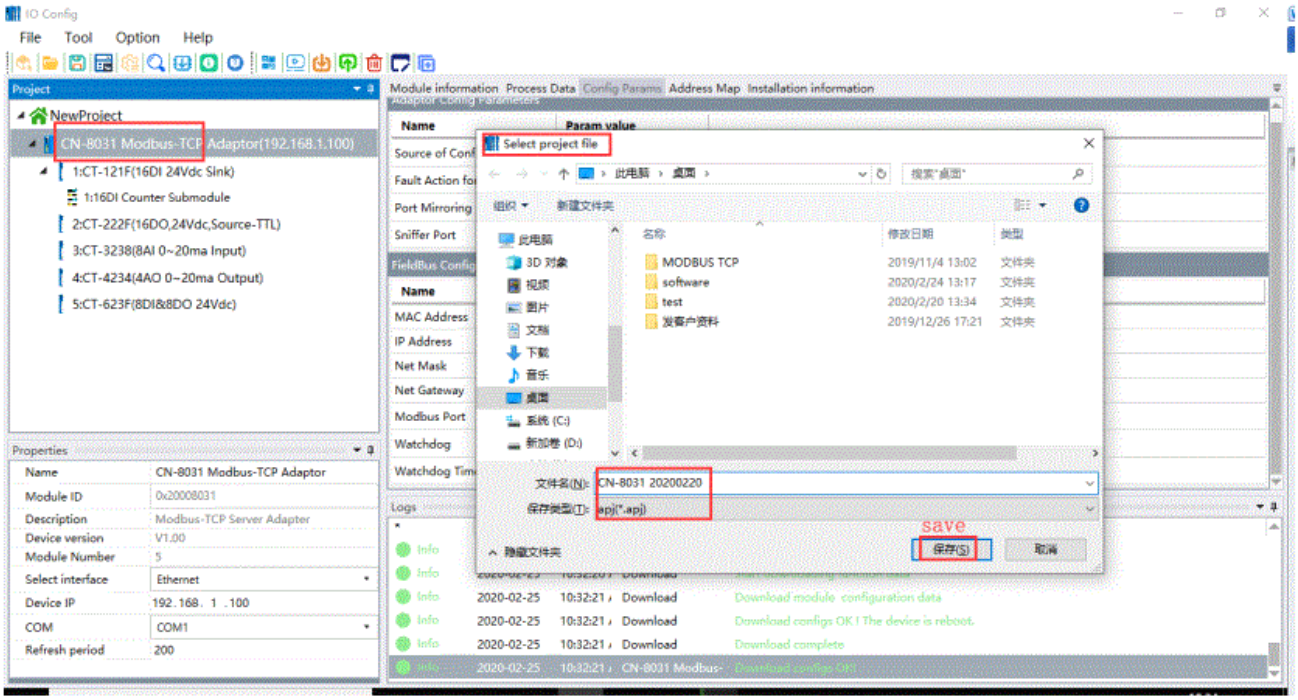




After the parameters are changed, you can right-click on CN-8031-Download IO Parameters in the project bar. So the configuration parameters of the adapter and IO module could be modified.



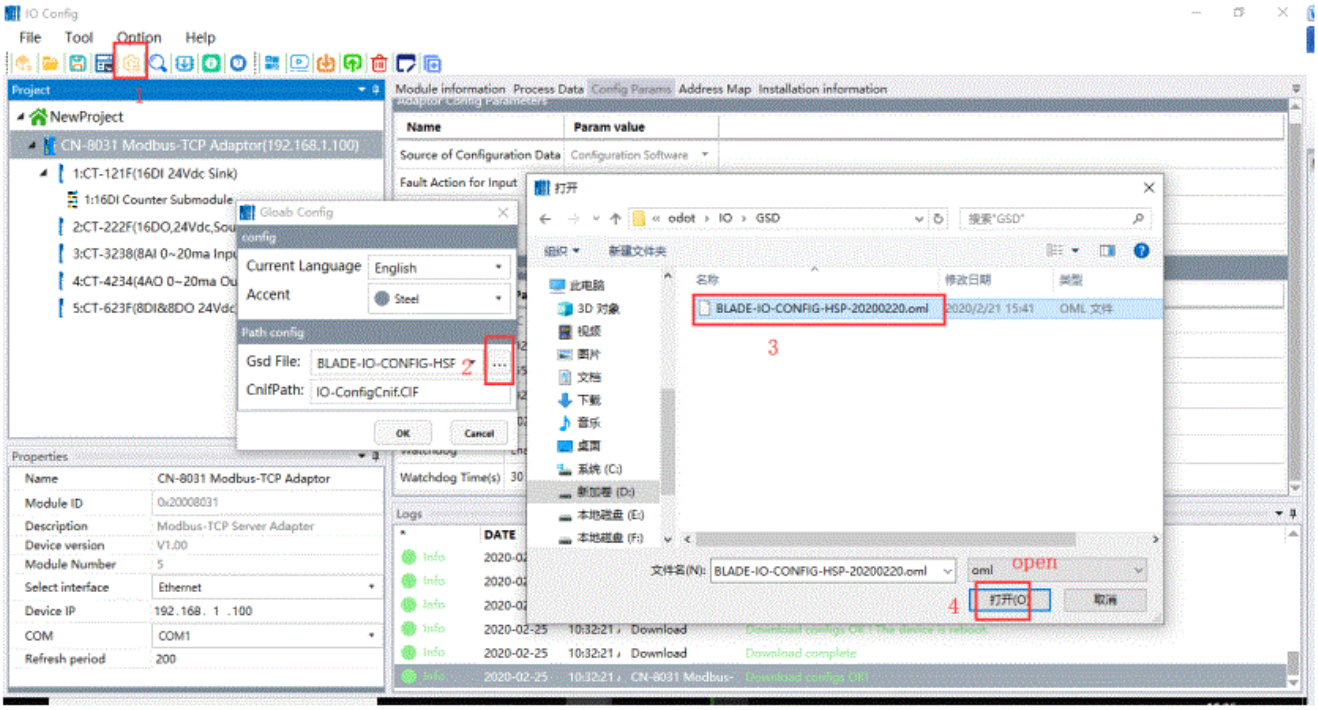
After all parameters are modified, select CN-8031 and click the shortcut key “Ctrl S” to save the configuration project.



Update device library files

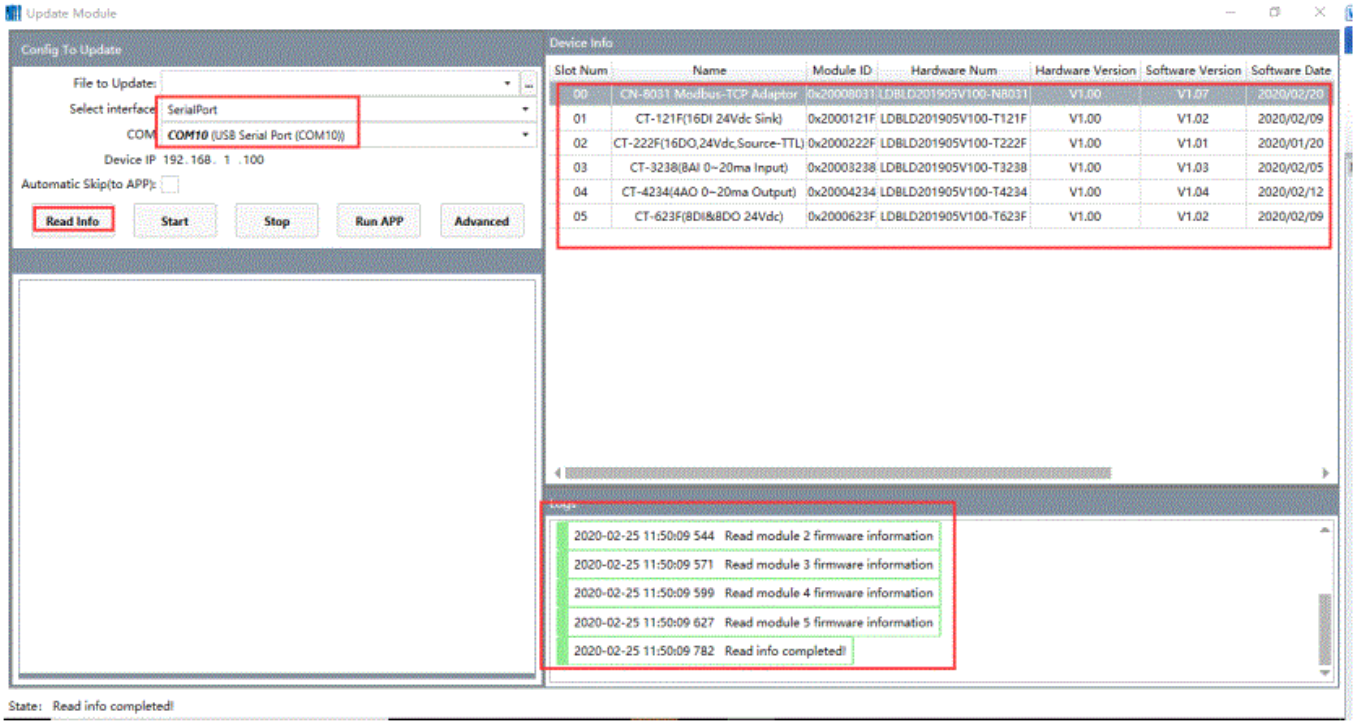
Update device library file is used to update the newly added IO module of software. When a new IO module is released, the customer can import the IO module into the configuration software by only updating the device library file, so there is no need to reinstall the configuration software.
First, copy and paste the latest version of the device library file of BLADE-IO-CONFIG-HSP-20200213 into the GSD folder of the software installation directory.

Second, click Option-Configuration or shortcut key in the menu bar. And in the pop-up window, please find the new library file (.oml) under the ‘Path config’, and click open to complete the update of the device library File.

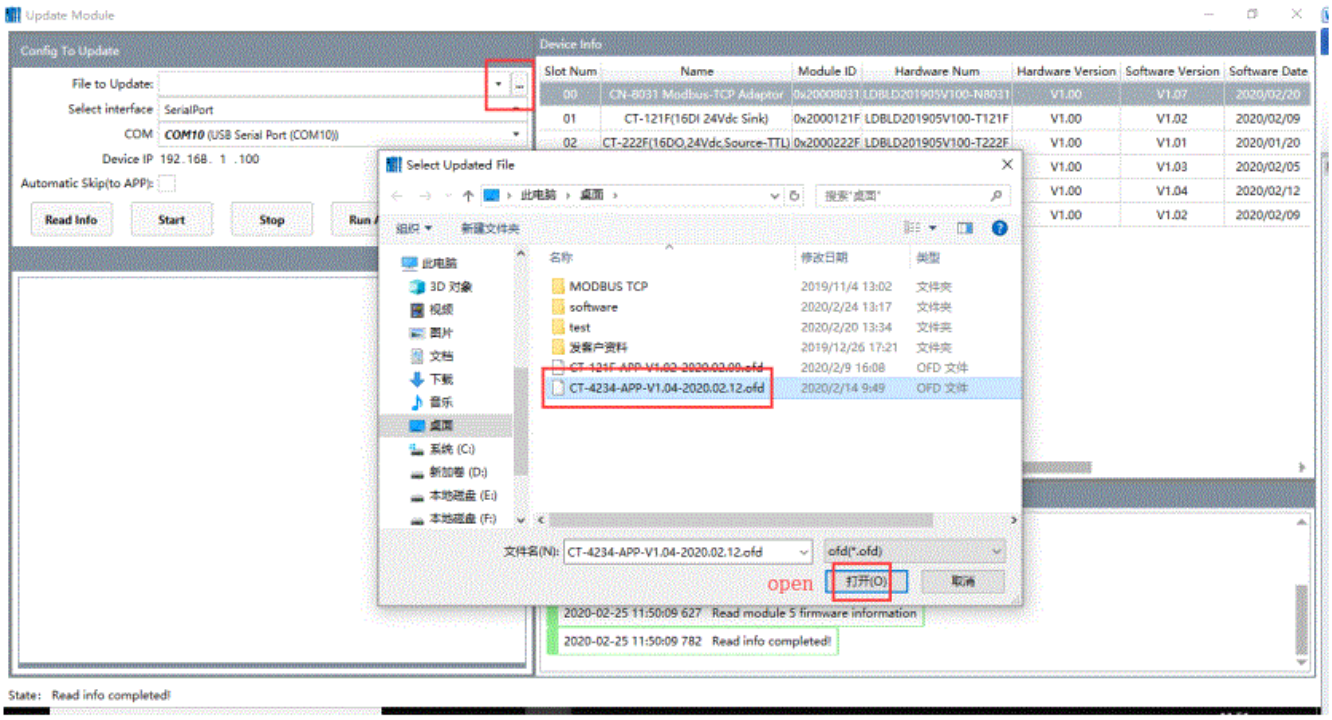


Device firmware upgrades

In IO Config software, click Tool→Online upgrade or shortcut , and in the pop-up window, select “Serial Port” (Ethernet could be selected for MODBUS TCP communication) and the serial port number is “COM10”. Click “read Info” to view the version information of the current adapter or IO module.

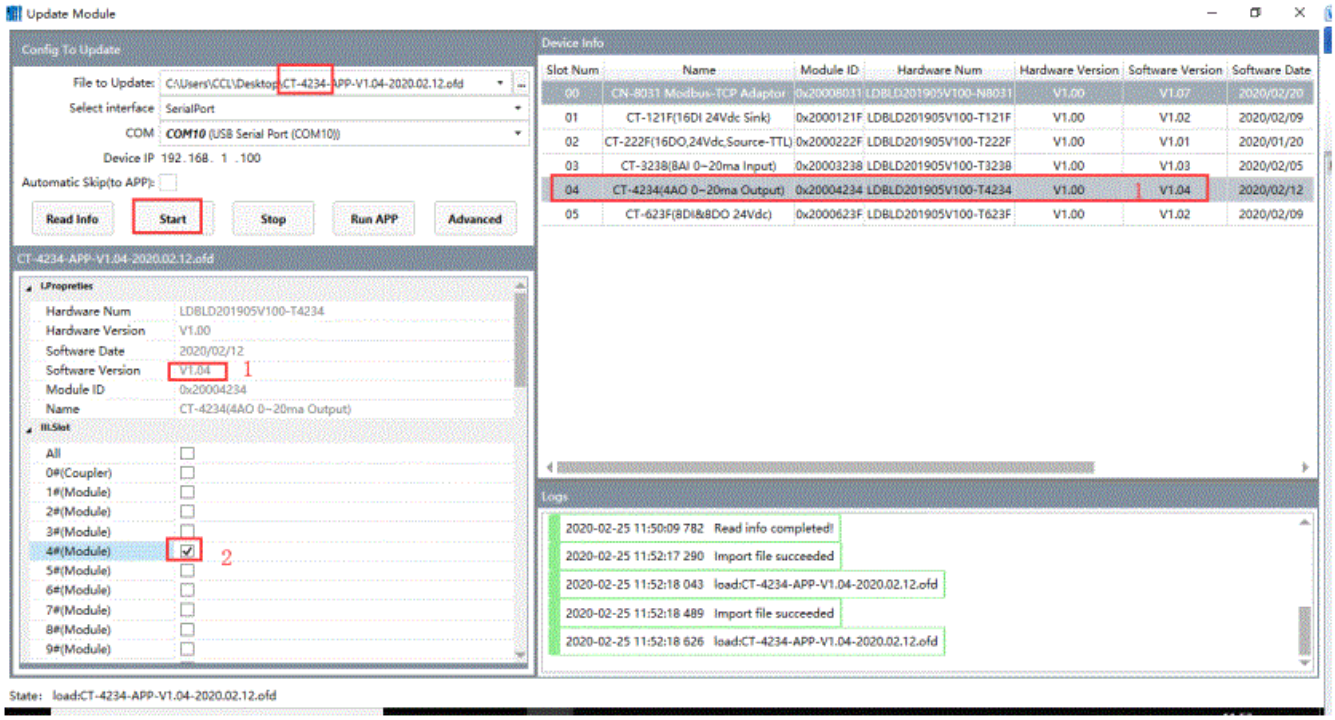


Click the right side of the upgrade file, and select the upgrade file (.ofd) of the analog output module CT-4234 in the pop-up window, and open it.

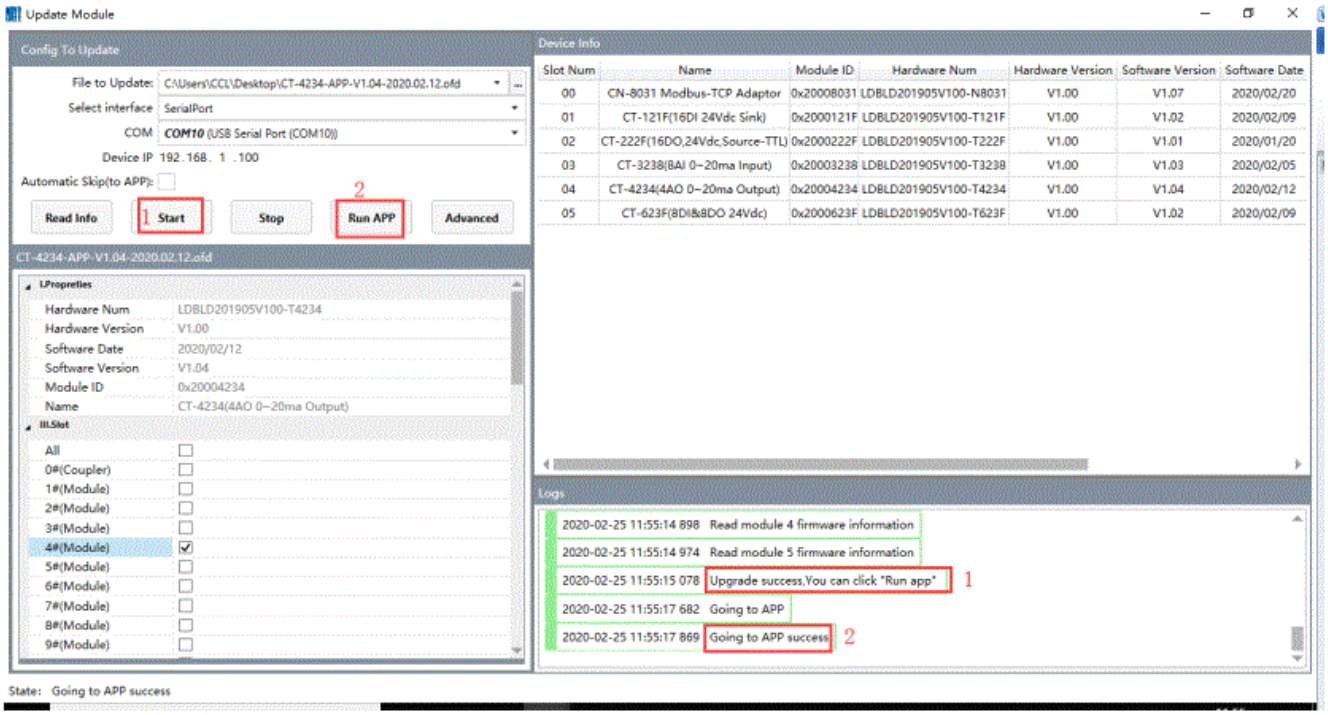


The upgrade version and other information could be viewed in the lower left side of the upgrade menu. And there is no upgrade for the currently firmware version so no need for upgrading. If the version information is inconsistent, please select the slot where the module is located(marking√) and click to start the upgrade.

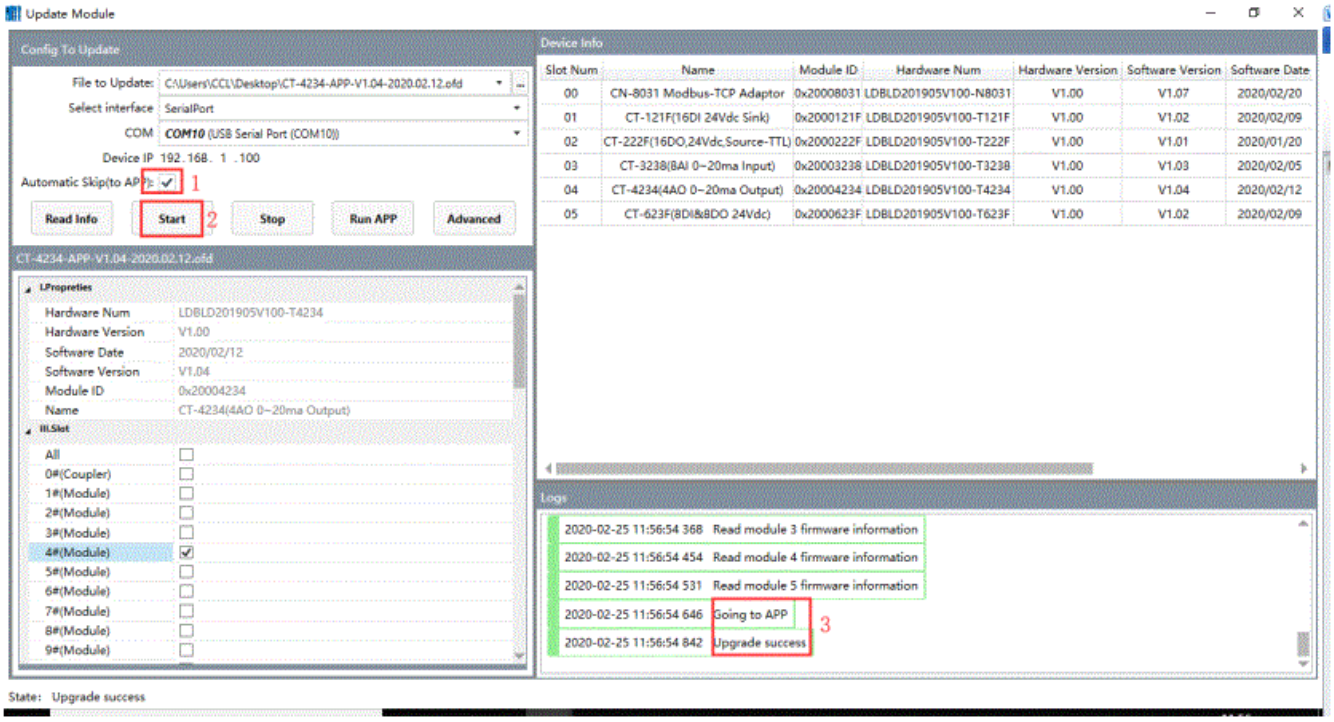
Note: if the hardware version displayed on the lower left side of the menu is IO module, and it needs to select the slot where the module is located(marking√) and click to start the upgrade.



Please note when upgrading: just click to Start for the upgrade, after the upgrade is completed, and it requires to enter APP mode, so it needs to manually click “run APP” or power up the device again.



If it only needs to upgrade the firmware of one module, you can select Automatic Skip (to APP), and click Start for upgrade, then the APP will run automatically when the upgrade is completed. If it needs to upgrade the firmware of multiple modules, please do not select Automatic Skip (to APP). Clicking Run APP after all the modules upgrade is finished.



Documents / Resources

	Odot IO-Config Configuration Software [pdf] User Guide CN-8031, IO-Config, IO-Config Configuration Software, Configuration Software, Software

References

- User Manual

Manuals+, **Privacy Policy**

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