

# DAQ Quick usage guide v1.3

This guide is suitable for VE, VP series capture cards and VK7016-VK7018 type capture cards. Please read this guide and follow the steps to get the card working quickly. This guideline is for new users, the operation mentioned in this guideline is the basic operation, if the user has already changed the IP address, the operation should be based on the modified address.

**Note: The current system version does not support simultaneous use of Ethernet and USB connections. If you try to enable both connections, the first successful connection will take precedence. For example, if the device is connected through Ethernet and then connected to a USB cable, the Ethernet connection is still valid, but the USB connection does not work. The USB connection takes effect only after the Ethernet cable is disconnected.**

**Note: If you need to use multiple collection devices in the same network segment for Ethernet communication, first set a unique IP address for each collection device by referring to section 2. USB Connection Method. After IP addresses are configured, you can connect to an Ethernet network to ensure that collection devices can communicate with each other without conflicts.**

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## 1. Ethernet connection method connection

### 1.1 Connecting the network cable and power supply operation

Use the Ethernet cable to connect the Ethernet interface of the acquisition device to the PC, and then use the factory-matched 24V power supply to plug into the POWER interface to power up.

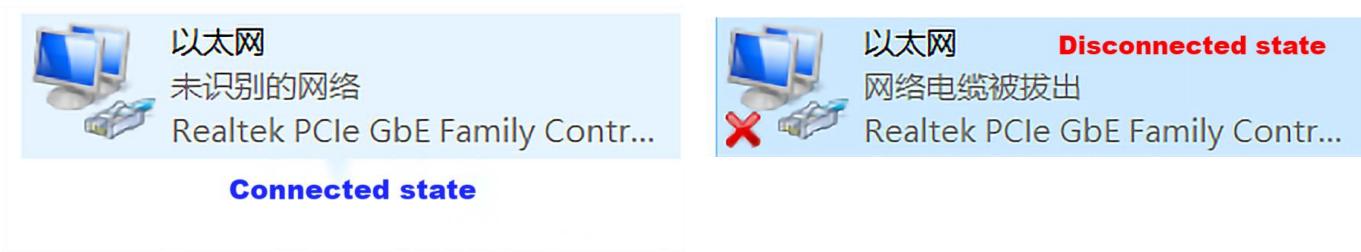
Note: The green seat power supply is 8~24V power supply, if you replace other power supply, please pay attention to the safe voltage range and positive and negative terminals.



### 1.2 Confirmation of network connection

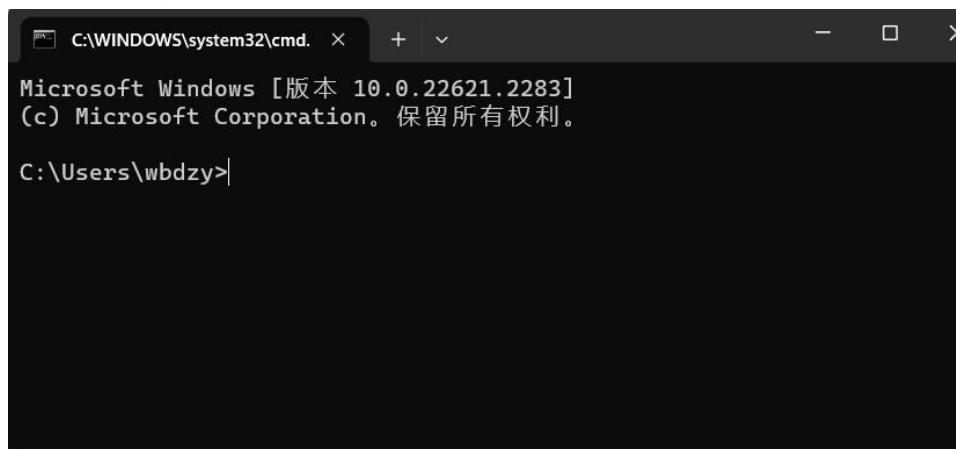
After the acquisition device is powered on, you can judge which network it is by plugging and unplugging the network cable. The default network name is "Ethernet", the name varies with multiple NICs, please refer to the actual situation.

You can judge whether the capture device is connected successfully by the icon.



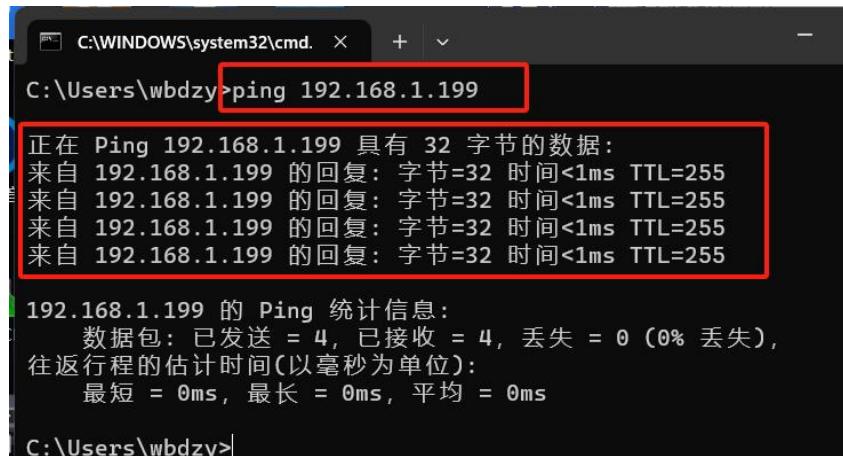
### 1.3 Detecting test connectivity

Press the "Win+R" shortcut key to open the Run window.



In the CMD command interface, type "ping 192.168.1.199".

If there is a time return, it means that the IP of the collection device is successfully connected: as shown below.



A screenshot of a Windows Command Prompt window titled 'C:\WINDOWS\system32\cmd.'. The command entered is 'ping 192.168.1.199'. The output shows four successful replies from the target IP, each with a TTL of 255 and a time less than 1ms. Below this, the 'Ping statistics' are displayed, showing 4 sent, 4 received, 0 lost (0% loss), and a minimum, maximum, and average round-trip time of 0ms. The prompt 'C:\Users\wbdzy>' is at the bottom.

```
C:\Users\wbdzy>ping 192.168.1.199

正在 Ping 192.168.1.199 具有 32 字节的数据:
来自 192.168.1.199 的回复: 字节=32 时间<1ms TTL=255

192.168.1.199 的 Ping 统计信息:
    数据包: 已发送 = 4, 已接收 = 4, 丢失 = 0 (0% 丢失),
往返行程的估计时间(以毫秒为单位):
    最短 = 0ms, 最长 = 0ms, 平均 = 0ms

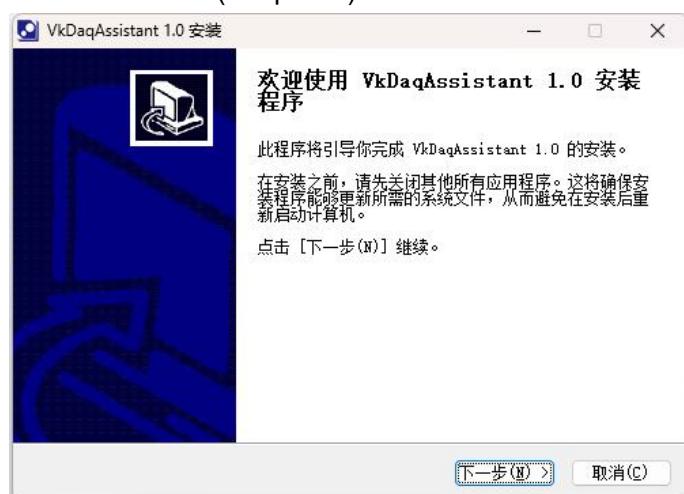
C:\Users\wbdzy>
```

## 1.4 Installation of VkDaqAssistant capture device assistant

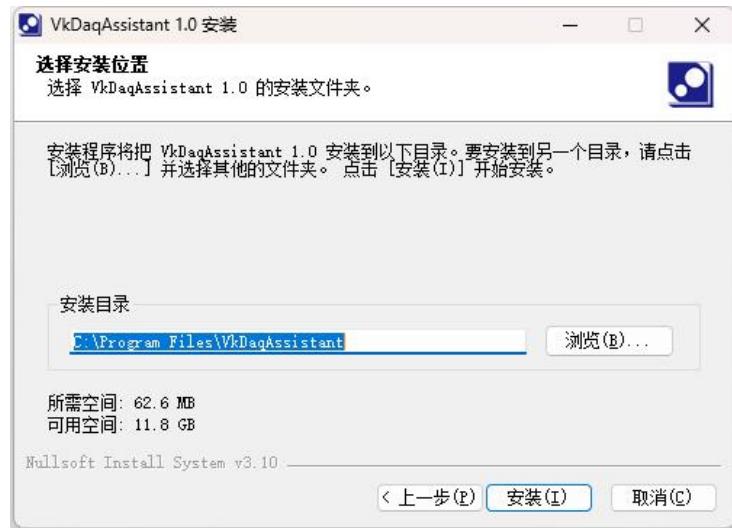
Install the VkDaqAssistant acquisition device assistant and follow the straightforward guidelines.



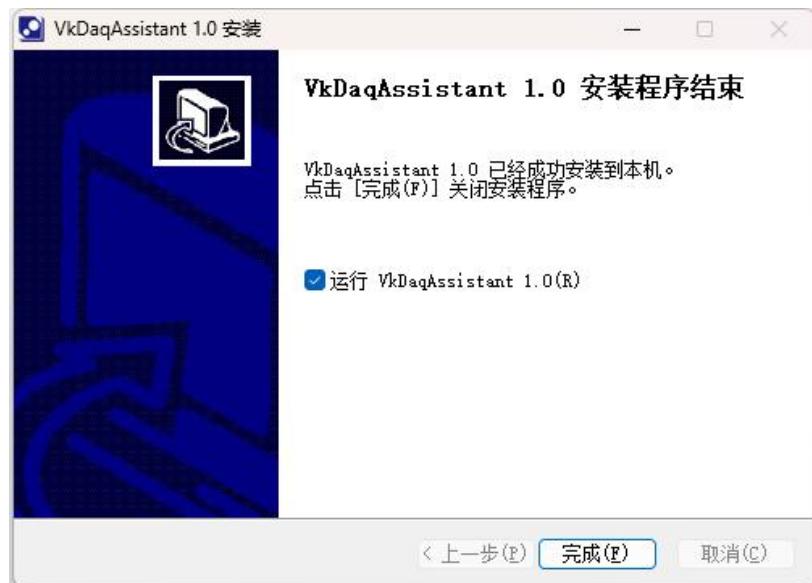
Select "Chinese (Simplified)" and click the "OK" button.



Click on the "Next" button.



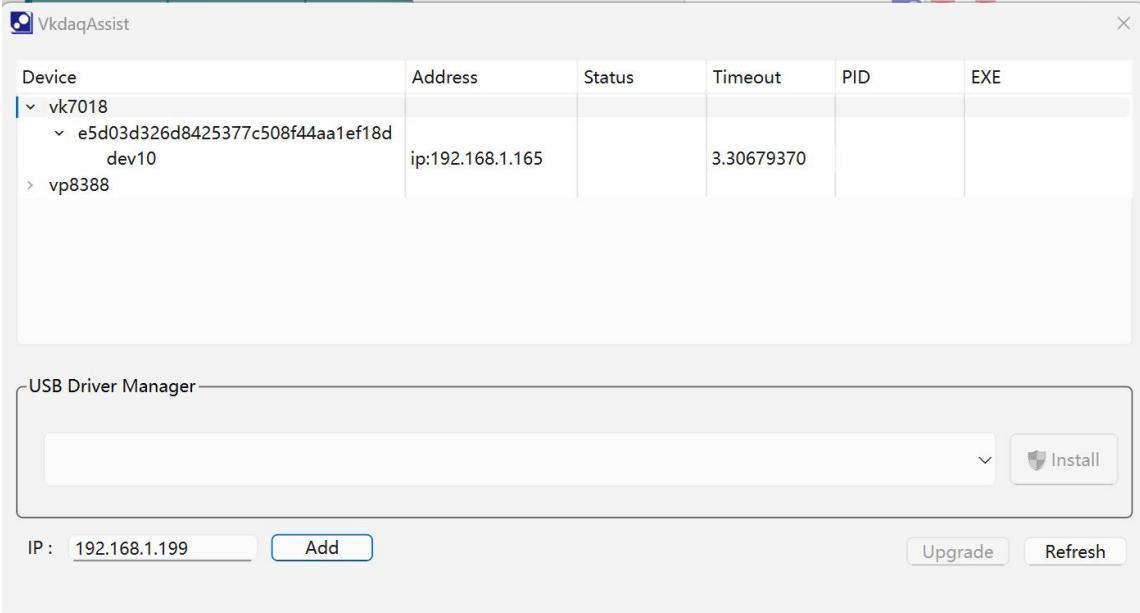
If you need to change the installation directory, change it to a custom directory (the default directory is recommended). Click the "Install" button.



Wait for the installation progress to reach 100% and click "Finish" to complete.



After the installation is complete, you can see the system's taskbar with a more consistent with the document header in the VKINGING logo, this is the acquisition of device assistant, double-click this icon, you can see the device manager page as follows.

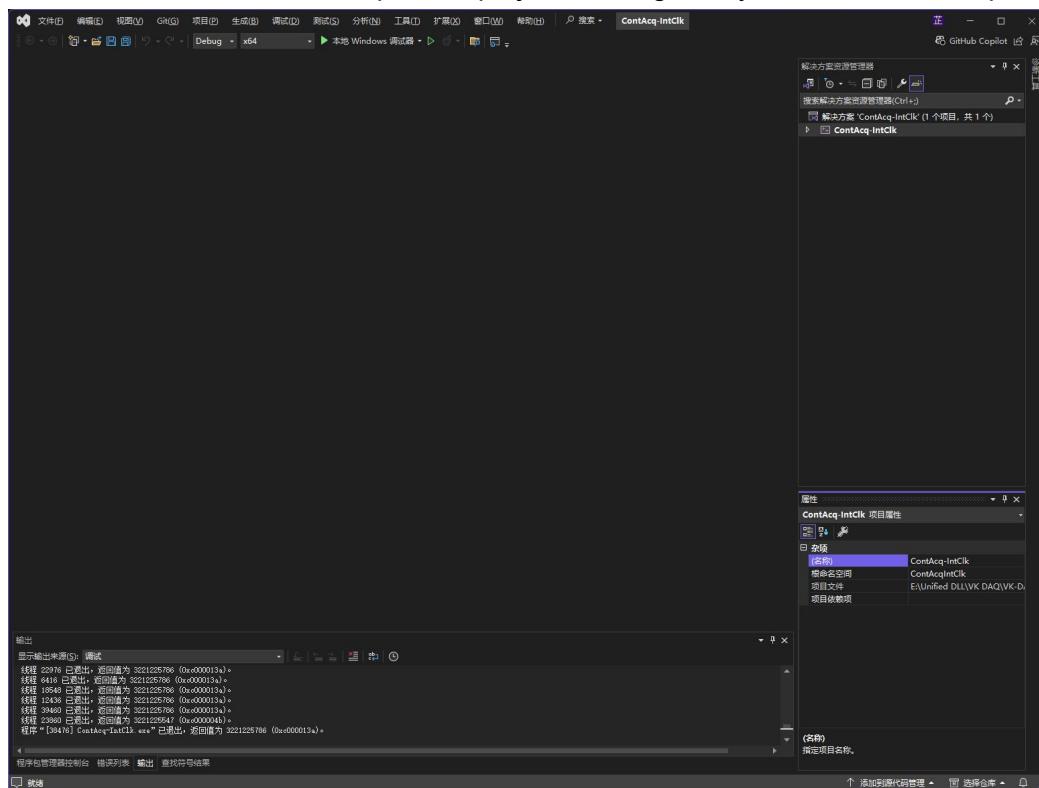


This shows the connected devices. Devices connected using USB will show something like "usb:2.8.0" in the Address column, and devices connected using Ethernet will show "ip:192.168.1.199" in the Address column.in the Address column for devices with an Ethernet connection.

## 1.5 Runtime routine

This article takes Visual Studio as an example to illustrate how to use the routine, if you use other IDE, the method is similar, please understand by yourself.

Please find this ContAcq-IntClk.vcxproj file in the path under "Installation Package Download Path\VK-DAQ\Examples\VC\Analog In\Measure Voltage\ContAcq-IntClk\ContAcq-IntClk.vcxproj" in the package. The file is a Visual C++ project information file for continuous acquisition using the internal clock. Double-click the file to open the project, making sure you have the development environment.



You can see the basic layout of the development environment as shown above



Click on the "Local Windows Debugger" button with the green triangular arrow at the top to get started!



After starting to run, the command line interface will pop up, and you can see that the value of Total is growing continuously, that is, it means that the acquisition device is using internal use for continuous sampling.

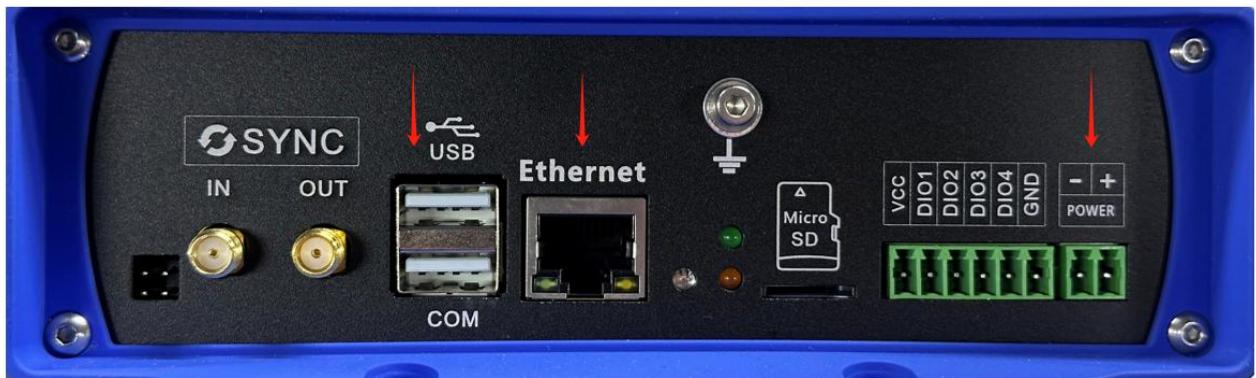
This concludes the quick guide to using the Ethernet connection.

## 2.USB connection method connection

### 2.1 Connect USB cable and power supply operation

Use a male-to-male USB cable to connect the USB port of the acquisition device to the PC (Note: the USB port above is for USB communication, and it is invalid to connect the port below). Then use the factory-matched 24V power supply into the POWER interface, you can power on.

Note: green seat power supply for 8 ~ 24V power supply, if you replace the other power supply, please pay attention to the safety of the voltage range and positive and negative terminals



## 2.2 Installation of VkDaqAssistant capture device assistant

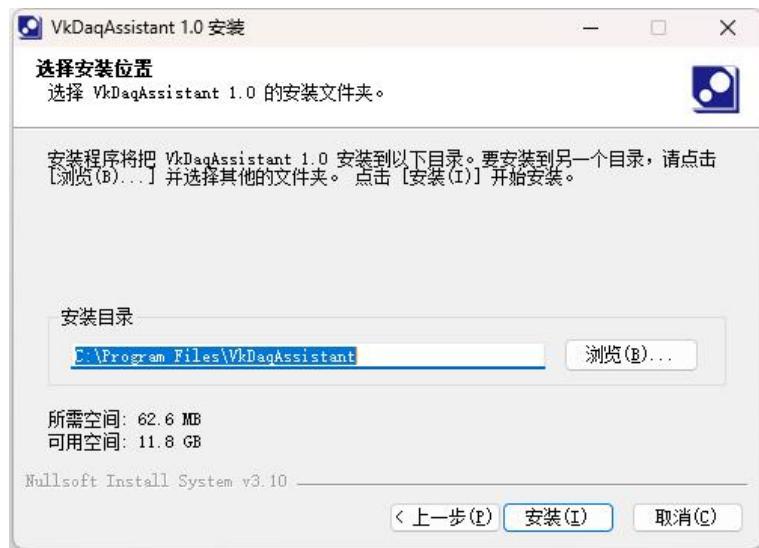
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Select "Chinese (Simplified)" and click the "OK" button



Click on the "Next" button.



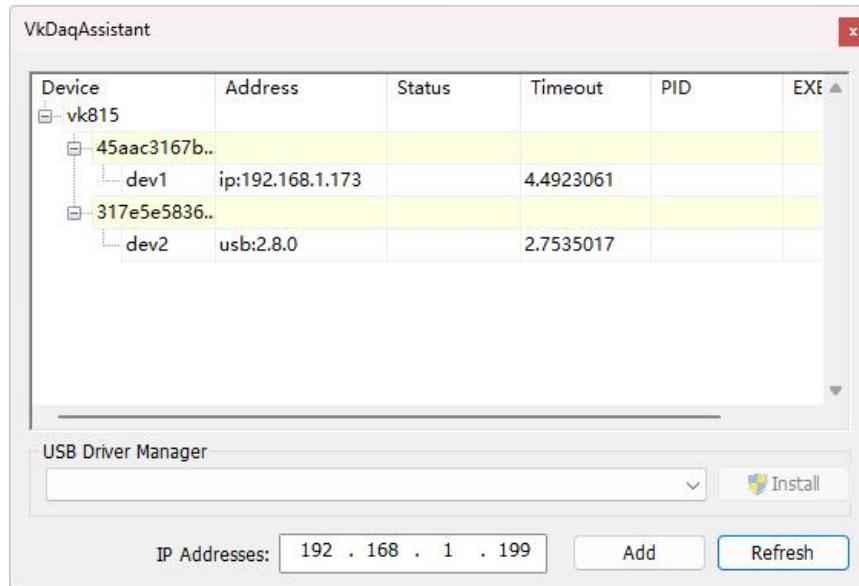
If you need to change the installation directory, change it to a custom directory (the default directory is recommended). Click the "Install" button



Wait for the installation progress to reach 100% and click "Finish" to complete it



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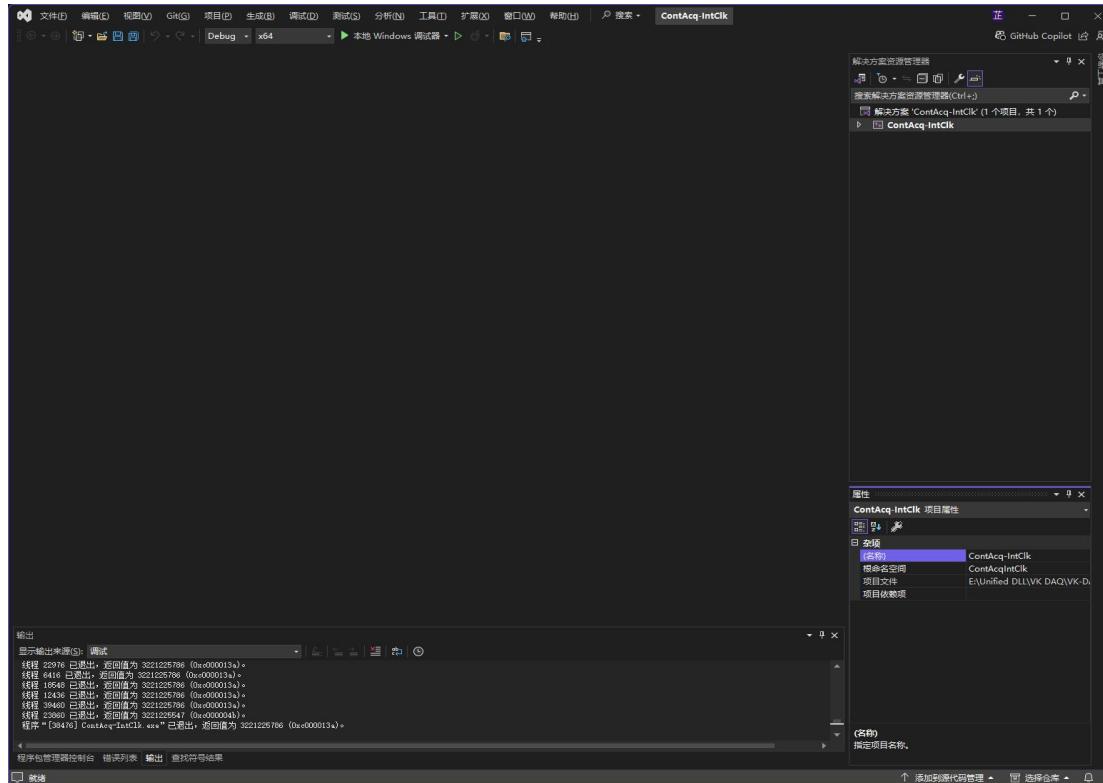
## 2.3 Modify IP address (optional)

If you need to modify the ip address, you can modify the ip address of the device under the USB connection mode here, double-click "usb:2.8.0" to pop up the modification window, refer to the default format for modification, and then re-power on the acquisition device after completion of modification to complete the modification of ip

## 2.4 runtime routine

This article takes Visual Studio as an example to illustrate how to use the routine, if you use other IDE, the method is similar, please understand by yourself.

Please find this ContAcq-IntClk.vcxproj file in the path under "Installation Package Download Path\VK-DAQ\Examples\VC\Analog In\Measure Voltage\ContAcq-IntClk\ContAcq-IntClk.vcxproj" in the package. The file is a Visual C++ project information file for continuous acquisition using the internal clock. Double-click on the file to open the project, making sure you have a development environment.



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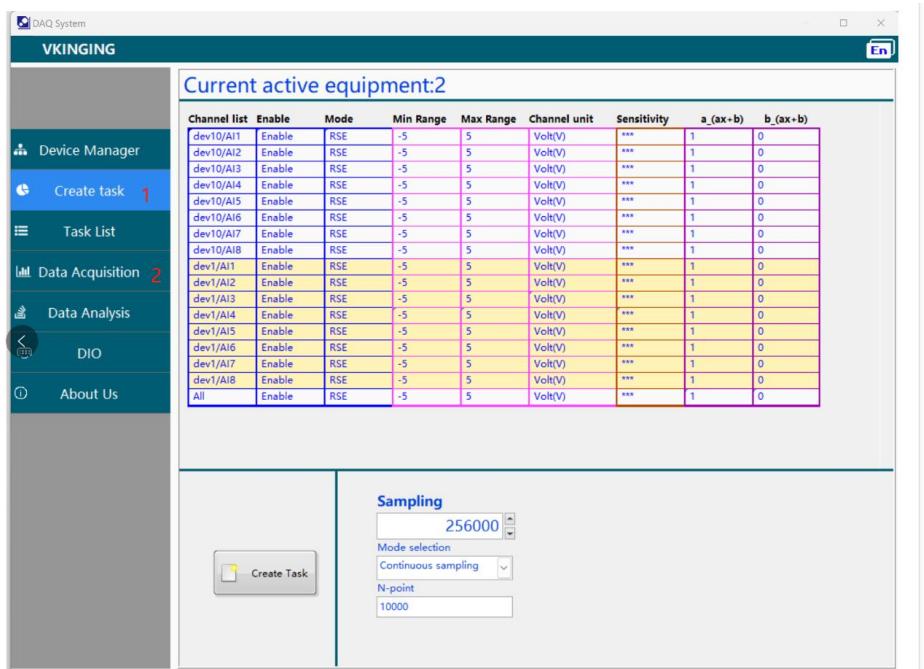
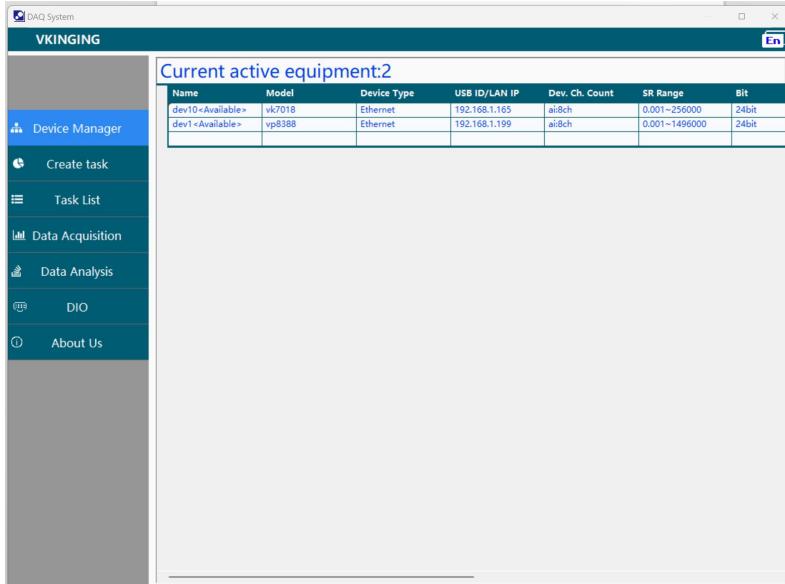
Click on the "Local Windows Debugger" button with the green triangular arrow at the top to get started!



After starting to run, the command line interface will pop up, and you can see that the value of Total is growing continuously, that is, it means that the acquisition device is using internal use for continuous sampling.

This concludes the quick guide to using the USB connection.

### 3.0 integrated software



Step 1:Create a task

Step 2:Data Acquisition

Thank you~!