Product Application Notes



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E104-BT5040UA packet capture tool environment installation tutorial

Foreword:

This section introduces the installation of the Ebyte E104-BT5040UA Bluetooth wireless packet capture tool environment, and the solution to the problem that the captured data cannot be displayed after the Wireshark identification module is included. This tutorial is suitable for Windows system installation, other system installation methods need users to check the nRF_Sniffer_BLE_UG_v3.1.pdf file by themselves.

Preparation：

1. E104-BT5040UA packet capture tool;
2. nrf_sniffer_V3_0 compressed package file, this file can be obtained from the official website E104-BT5040UA → related download;
3. The client needs Python 3.6 or later installed on the computer and add Python to the environment variables!!!

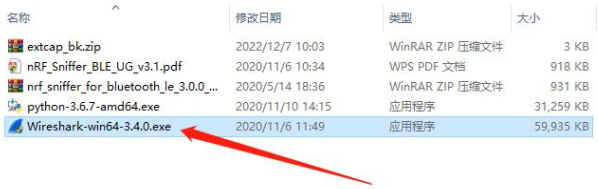
1. nrf_sniffer_V3_0 file introduction



nRF_Sniffer_BLE_UG_v3.1.pdf → Installation manual (Customers can also follow this manual for installation)
nrf_sniffer_for_bluetooth_le_3.0.0_129d2b3.zip → Wireshark plug-ins, etc.
python-3.6.7-amd64.exe → Python Installation package
Wireshark-win64-3.4.0.exe → Wireshark Installation package
extcap_bk.zip → script file

1. Environment installation
1.1 Install “Wireshark”

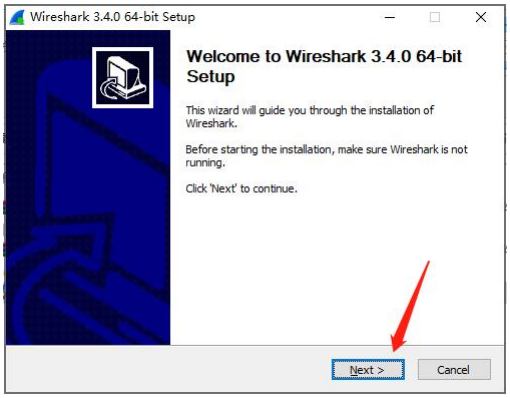
A) Double click “Wireshark-win64-3.4.0.exe”



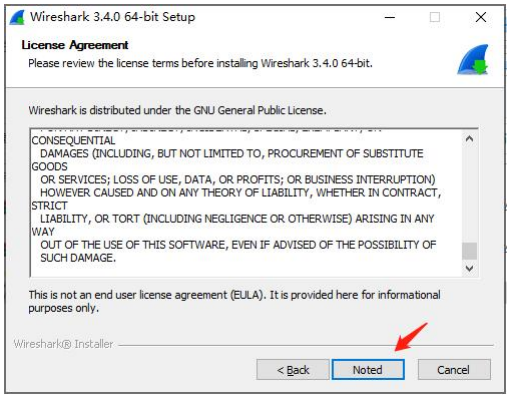
B) Click “Next”

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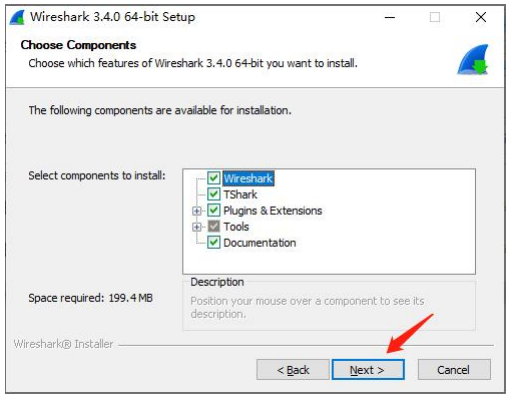
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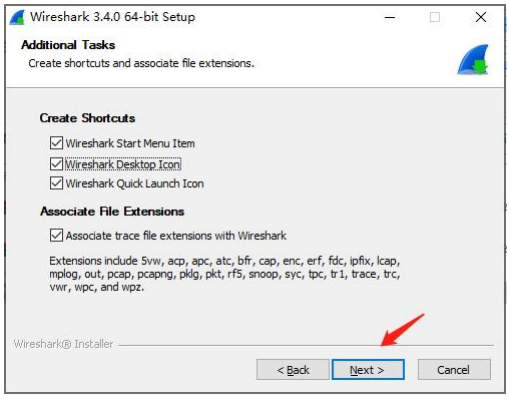
C) Click “Noted”



D) Click “Next”



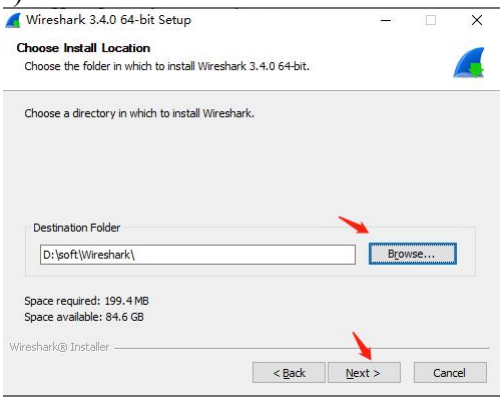
E) Click “Next”



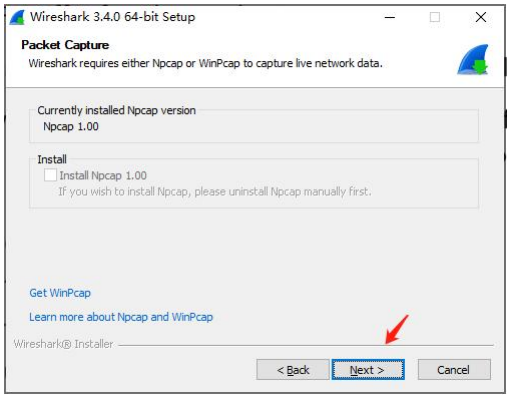
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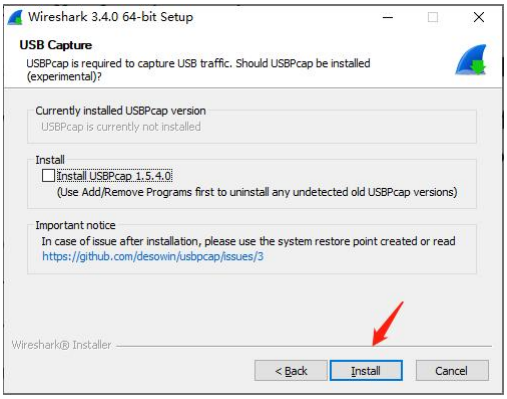
F) Click “Browse”..., select the installation path, and click “Next”. (Note: The installation path here will be used in subsequent steps).



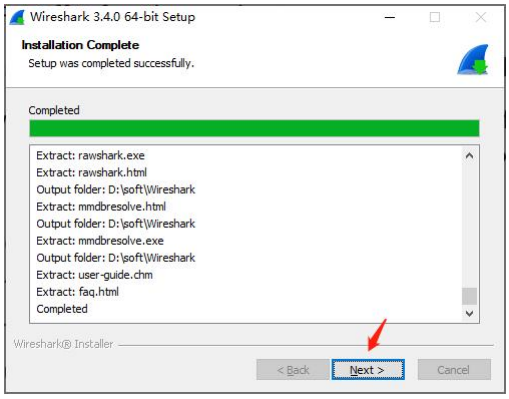
G) Click “Next”



H) Click Install to start the installation



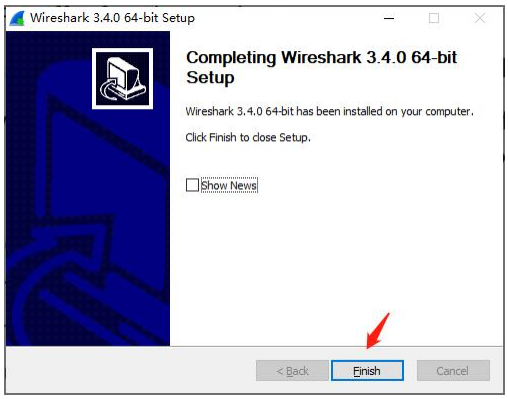
I) Click “Next”



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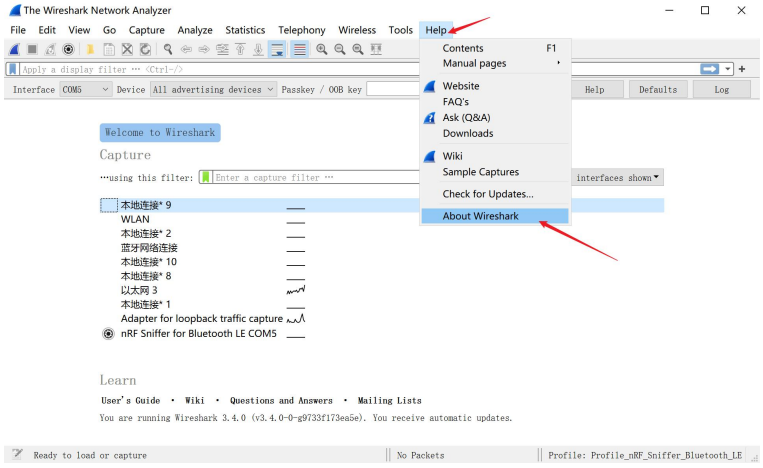
J) Click Finsh to complete the installation



2.2 Install the Wireshark External Capture Plugin

2.2.1 Install the Wireshark External Capture Plugin

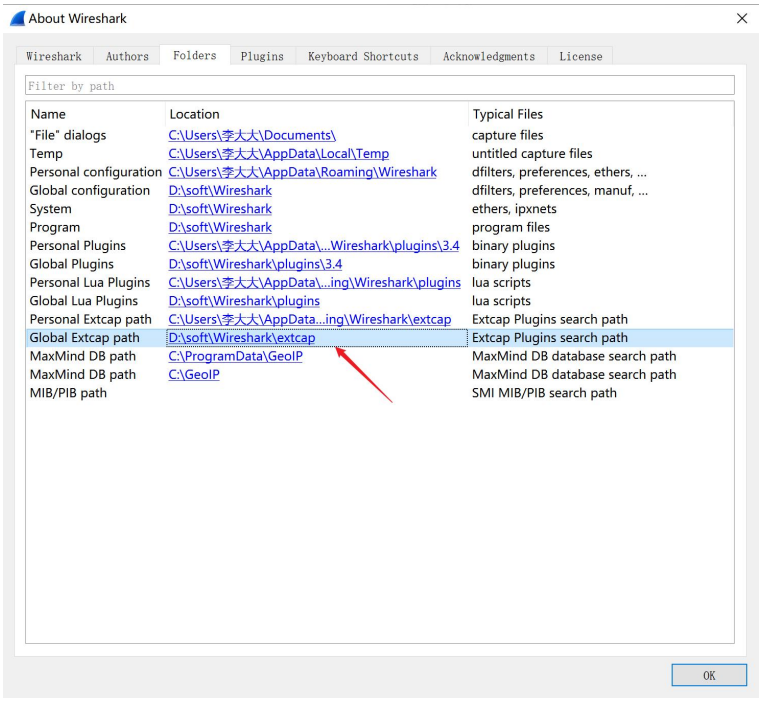
A) Open “ Wireshark” ,Click “Help” > “About Wireshark”



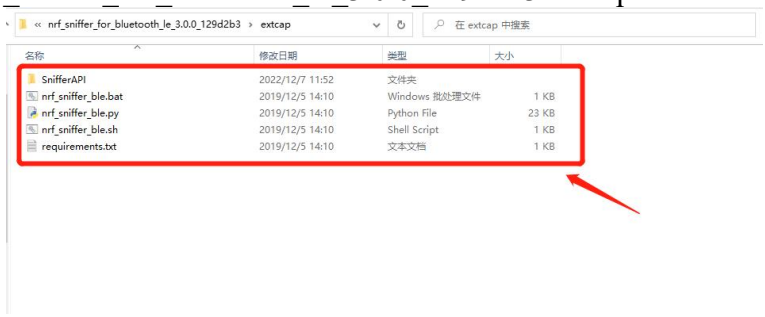
B) Click Folders, select Global Extcap path, double-click D:\soft\Wireshark\extcap (Note: This path is the installation path of Wireshark software), and enter the installation directory folder.

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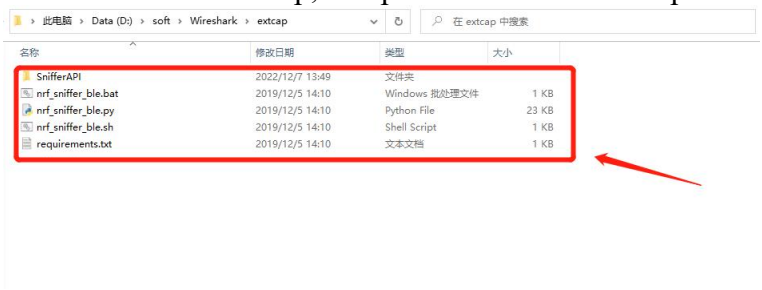
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C) Copy the plug-in file to the extcap folder of the installation path, and copy the "nrf_sniffer_V3_0" file under the compressed file "nrf_sniffer_V3_0\nrf_sniffer_for_bluetooth_le_3.0.0_129d2b3\extcap"



Paste the file to D:\soft\Wireshark\extcap, this path is the installation path of Wireshark.



2.2.2 Install “requirement.txt”

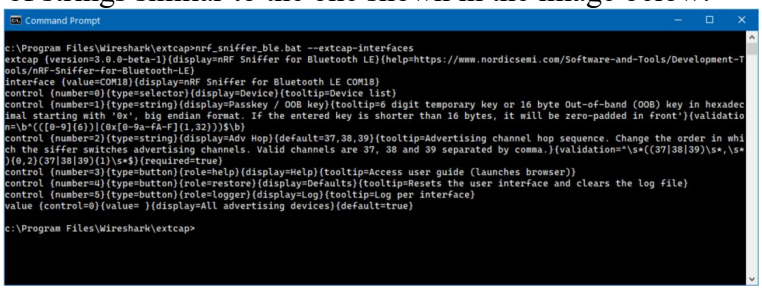
A) Type cmd in the installation path window, and then press Enter to enter the Windows command line tool.

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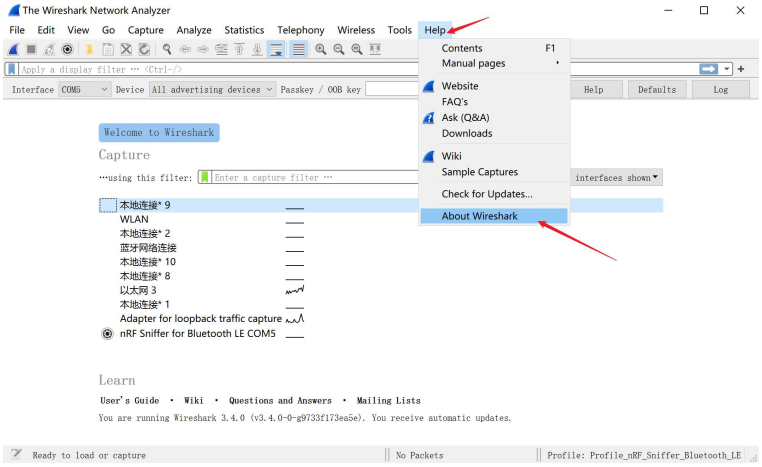
B) Enter "nrf_sniffer_ble.bat --extcap-interfaces" in the Windows command line tool, and press Enter. You can see a series of strings similar to the one shown in the image below:



Note: If an error is returned, please verify that Python 3 is accessible by typing python --version in the window.

2.3 Added profile in Wireshark to facilitate display of data recorded by nRF sniffer for Bluetooth LE.

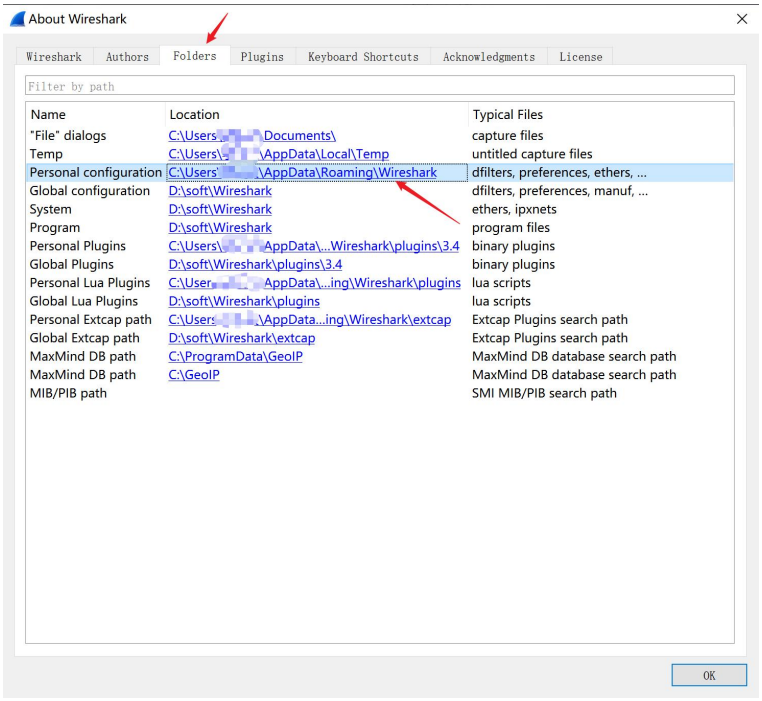
A) Open Wireshark, Click Help > About Wireshark



B) Click Folders, select Personal configuration, and double-click C:\Users\xxx\AppData\Roaming\Wireshark. (Note: This path is the personal configuration path of the Wireshark software). Go to the configuration folder.

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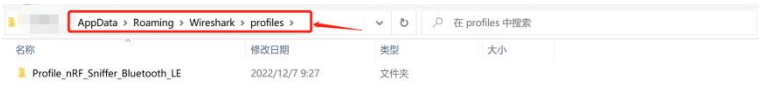
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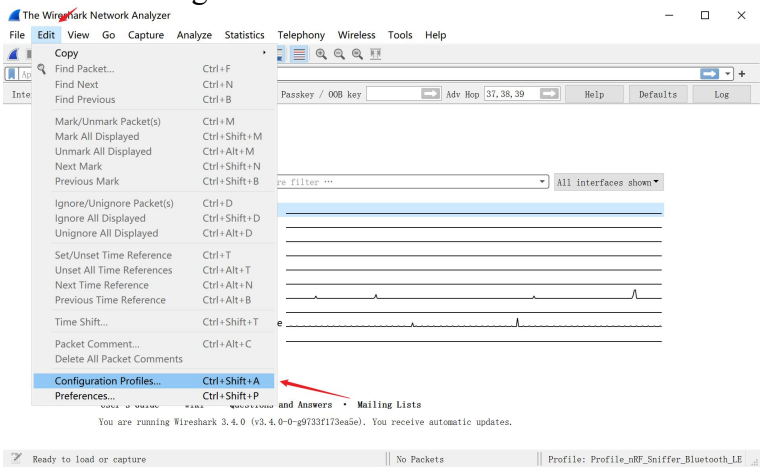
D) Copy the "Profile_nRF_Sniffer_Bluetooth_LE" folder under the "nrf_sniffer_V3_0 > nrf_sniffer_for_bluetooth_le_3.0.0_129d2b3" file.



E) Paste the "Profile_nRF_Sniffer_Bluetooth_LE" folder to the profiles folder in the folder entered in step B).



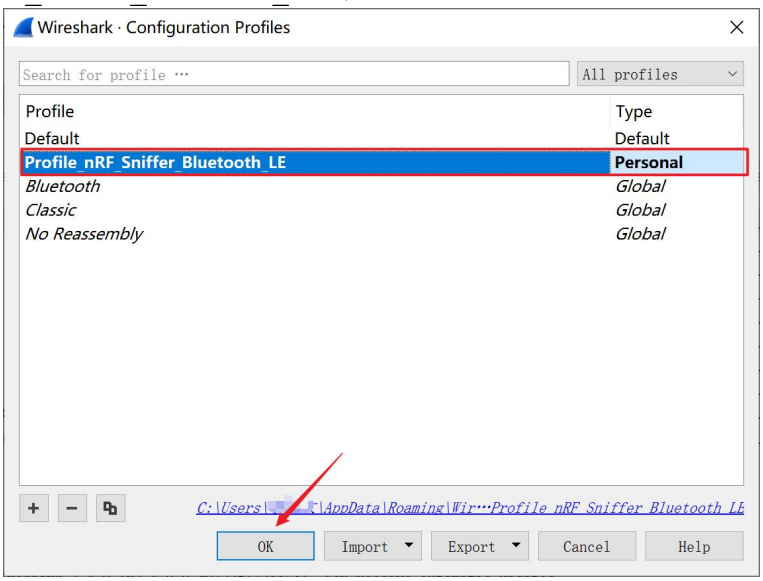
F) In Wireshark, select "Edit > Configuration Profiles...".



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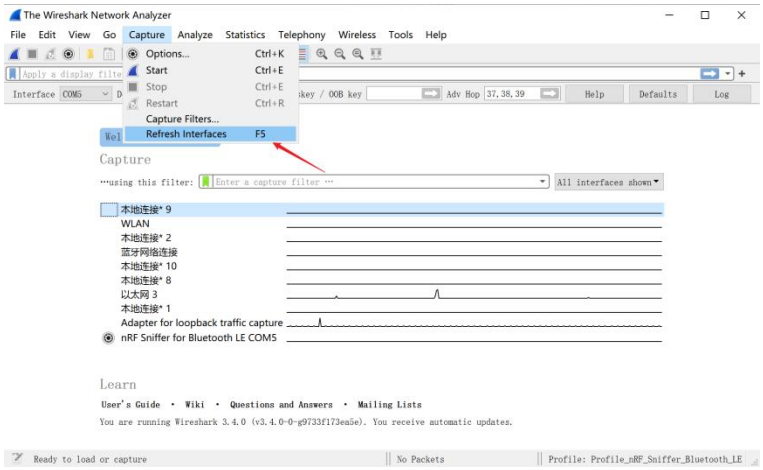
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G) Select “Profile_nRF_Sniffer_Bluetooth_LE”，Click “OK”.



2.4 View capture data.

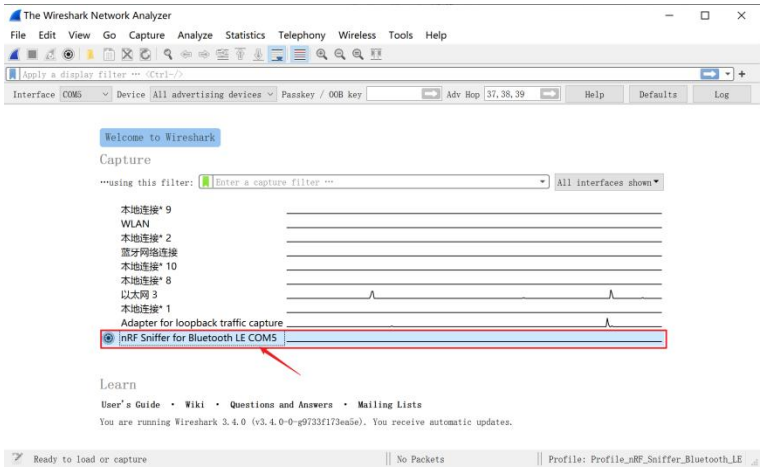
A) Plug the E104-BT5040UA module into the computer, open the Wireshark tool, click Capture, and click Refresh interfaces.



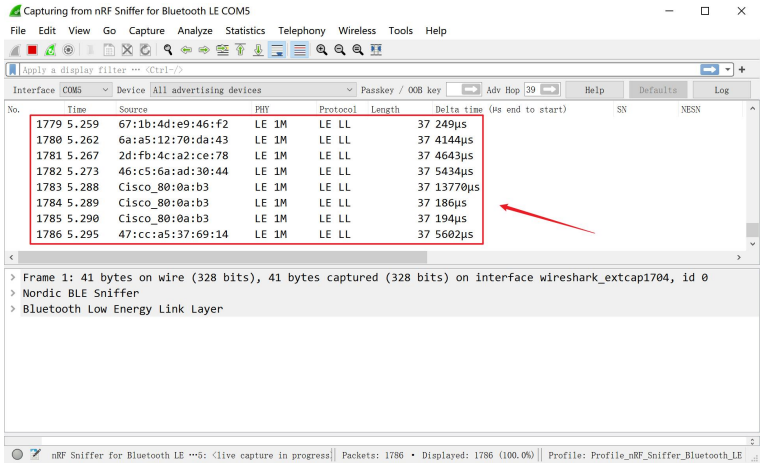
B）Double-click the corresponding interface.

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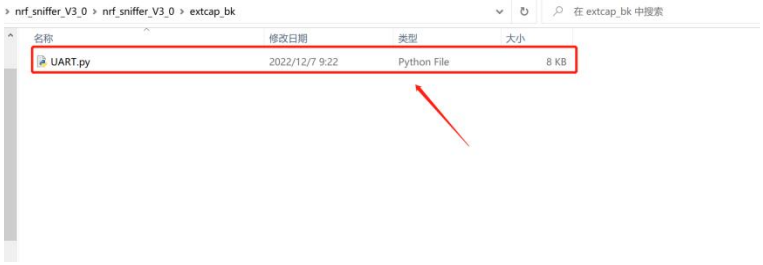
C）View capture data.



2.5 The solution to the problem of no captured data in the Wireshark window

Problem: If you open Wireshark, refresh the interface list, and double-click the corresponding port, there is no captured data in the window. It can be solved by the following steps.

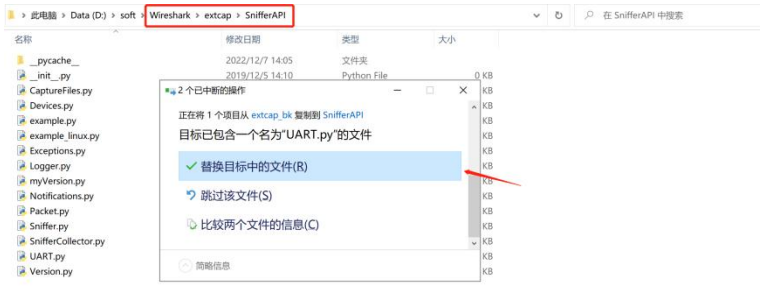
A) Open the "nrf_sniffer_V3_0" file, decompress the "extcap_bk.zip" file, and copy the UART.py file under the "extcap_bk" folder.



B) Paste the file "UART.py" to "D:\soft\Wireshark\extcap\SnifferAPI" (Note: This path is the Wireshark installation path). Click "Replace the file in the target (R)",After completing the replacement, complete steps D) and E) in Section 2.2.1 of this article again, you can view the captured data through the steps in section 2.4, and you can view the captured data at this time.

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