

HighFinesse Tutorial

## Control the Standalone Wavelength Meter with your own application via the network

Important notice

Make sure the proper version of Visual C++ Redistributable for Visual Studio for your operating system is installed. You can download it here:

https://support.microsoft.com/en-us/help/2977003/the-latest-supported-visual-c-downloads

Then please run the vc\_redist.x64.exe (vc\_redist.x86.exe for 32 bit).

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## Further information

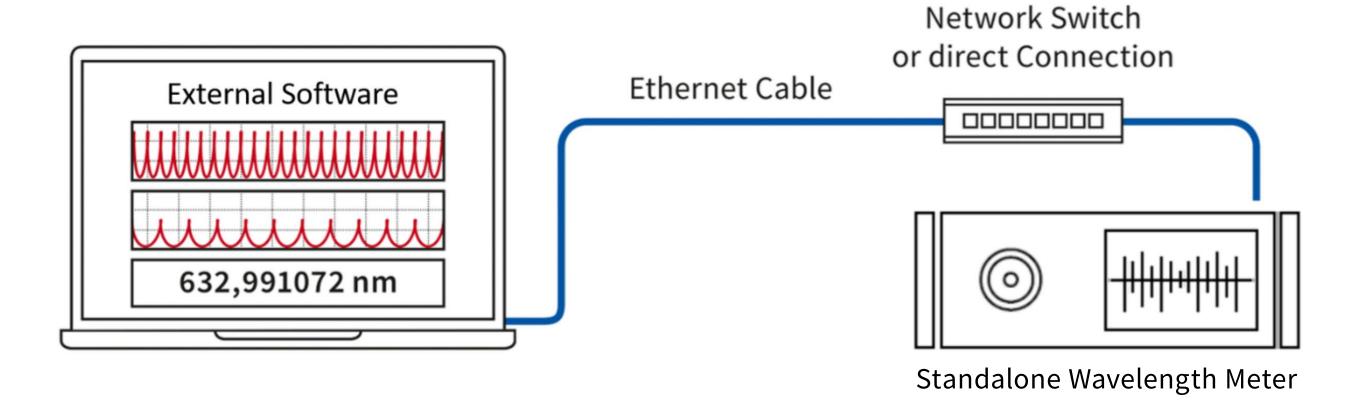
This tutorial shows you how to ...

... Control the Standalone Wavelength Meter with your own application via the network.

This guide is intended to give you a short introduction on how to control a HighFinesse standalone wavelength meter via the network. It is discussed how to use the LongTerm application and Python example that can be used as a starting point for your own application controlling the wavelength meter via the network.

HighFinesse User Manual
WLM Network Solution

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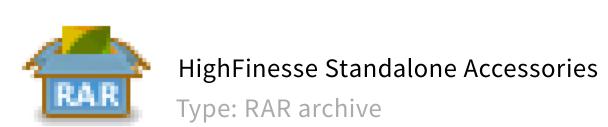


Connect the Wavelength Meter to the Network.

Connect the **USB stick** with the **HighFinesse Standalone Accessories** to your computer.

If you have lost the USB stick download the files using the link below:

https://
www.highfinesse-downloads.com/
download/
6mcxfh5nw96w



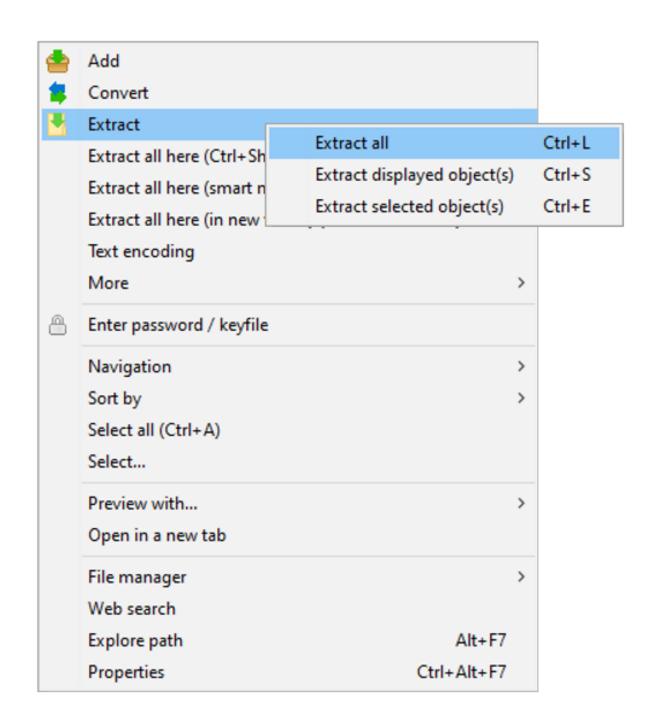
Find the RAR archive

HighFinesse

Standalone Accessories

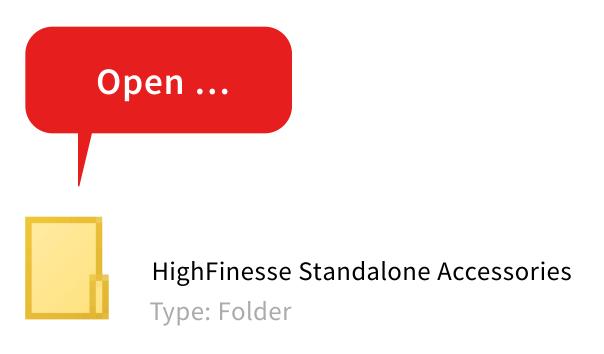
on the USB stick.

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Extract the RAR archive **HighFinesse Standalone Accessories.** 

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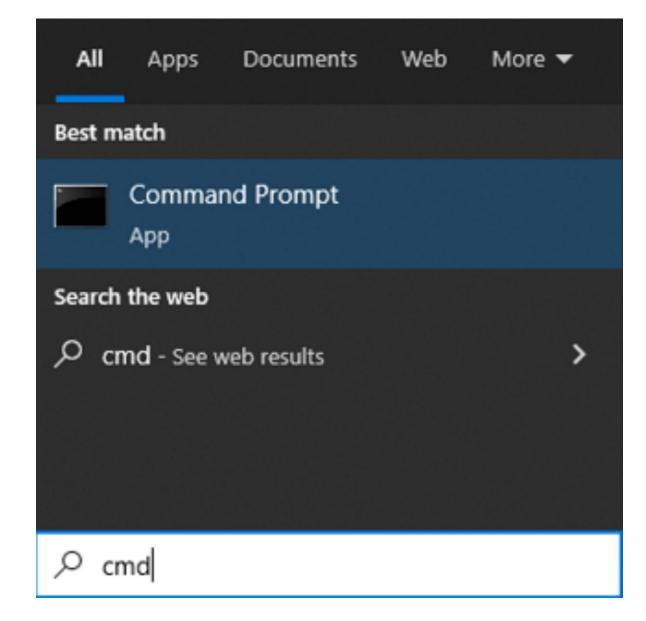
Open the extracted folder **HighFinesse Standalone Accessories.** 

Copy the folder

to your computer.

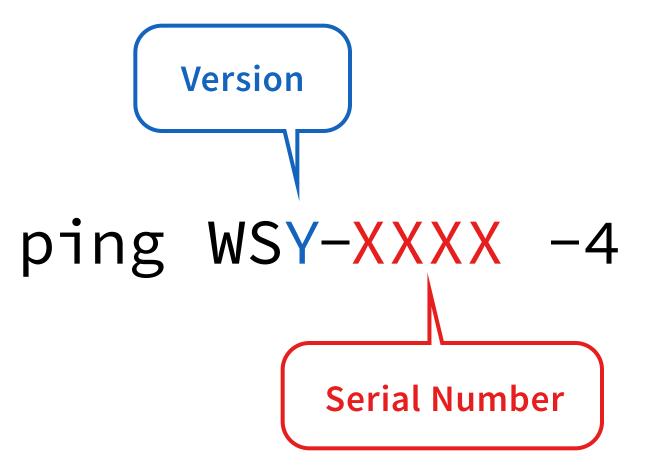
Example Longterm

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Start the **Command-line** in windows ...

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... and send **ping WSY-XXXX -4** described in step 9 (next page).

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## H:\>ping WS6-3638 -4

As an example for a WS6 with the serial number 3638 send: ping WS6-3638 -4.

On linux it might be necessary to send the command ping WS6-3638. local -4 instead

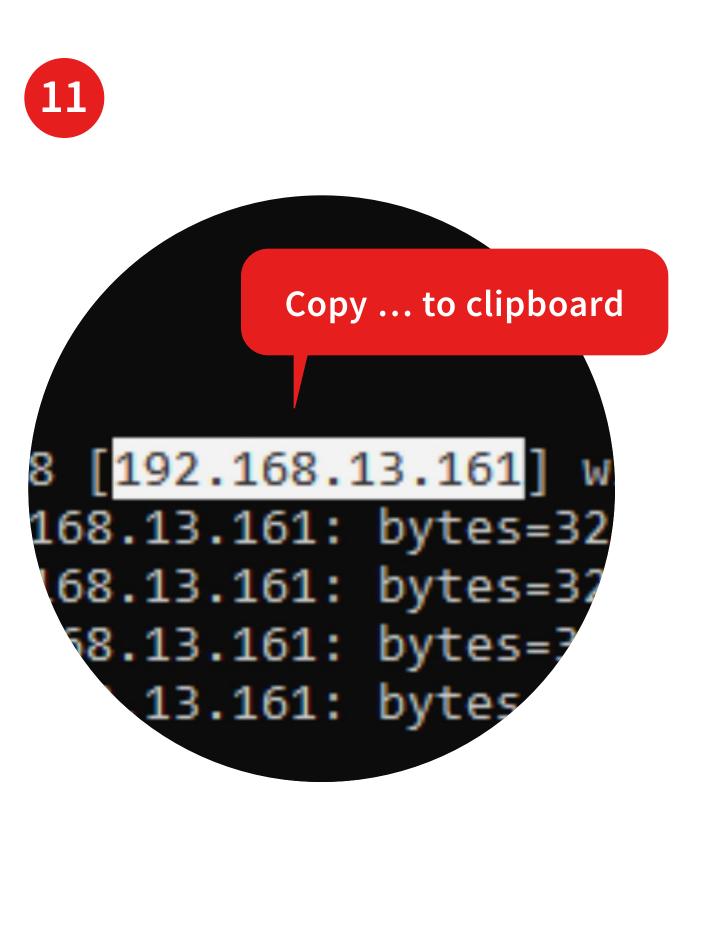
```
Pinging WS6-3638 [192.168.13.161] with 32 bytes of data:
Reply from 192.168.13.161: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.13.161:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms</pre>
```

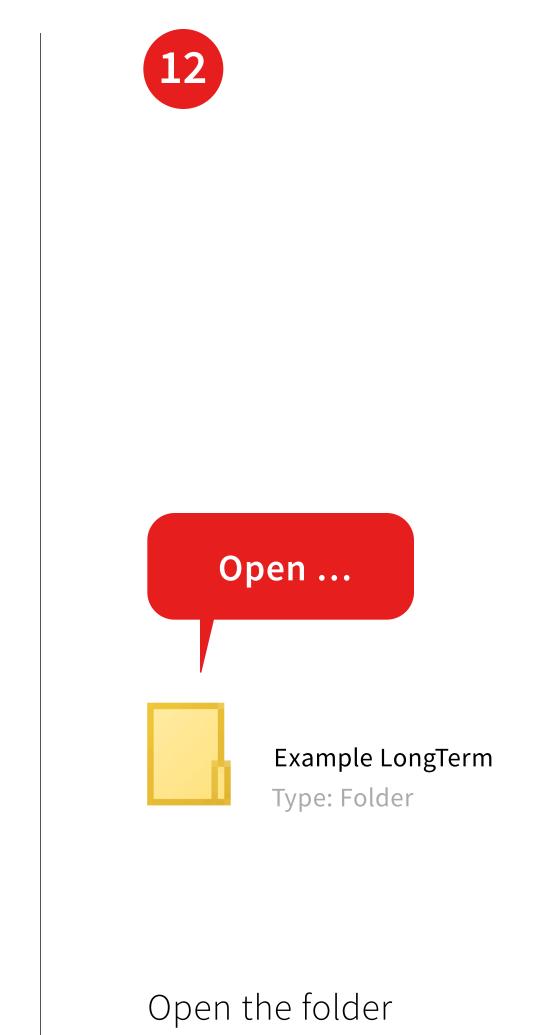
## Result:

This delivers you the **IP address** (white area) of the standalone instrument in your network:

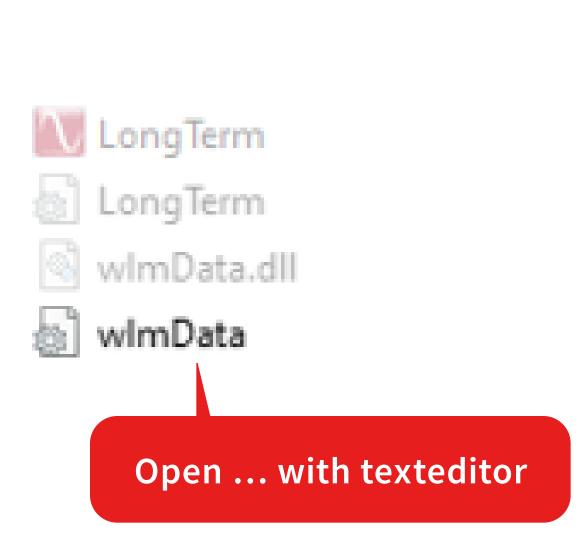
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Copy this **IP address** to your clipboard.



Example LongTerm ...



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... and open the file wlmData.ini with an texteditor.

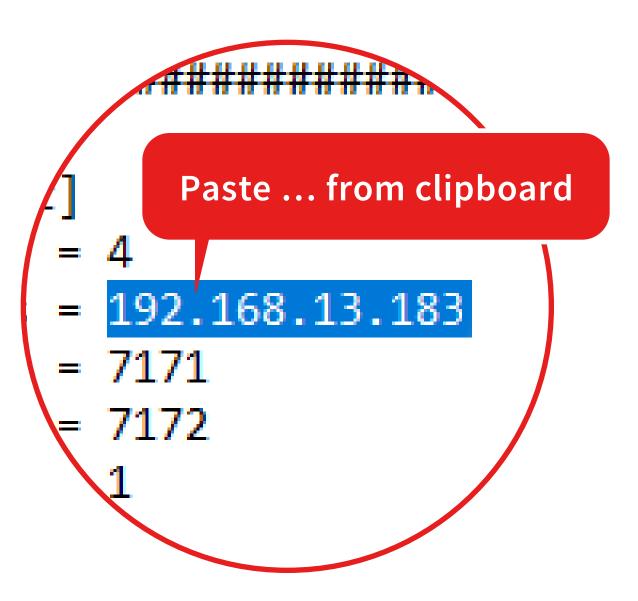
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wlmData - Notepad
File Edit Format View Help
; @file wlmData.ini
; @brief Example configuration file for HighFinesse NetAccess WLM/LSA network solution
; client side library
; @date: 2021.03.10
; @version: 0.1
; wlmData.ini example scenario 1 configuration file
[default]
                       ; Default settings (it match with all measurement applications)
version = 4
address = 192.168.13.183
                       ; Instrument server IP address
port = 7171
                       ; Set/Get TCP Port number
                       ; CallbackProc/Ex TCP Port number
port2 = 7172
offload = 1
                       ; ConvertUnit / ConvertDeltaUnit functions
                       ; network offload (1=0n, 0=0ff)
loglevel = 3
                       ; Loglevel: Warning
                       ; Error signaling: Log+EXIT 1 + 8 = 9
errormode = 9
; wlmData.ini example scenario 2 configuration file
; [LongTerm1.exe]
                       ; Configuration section for LongTerm1.exe
; version
                       ; Instrument server IP address
; address = 192.168.10.2
                       ; Set/Get TCP Port number
; port = 7171
```

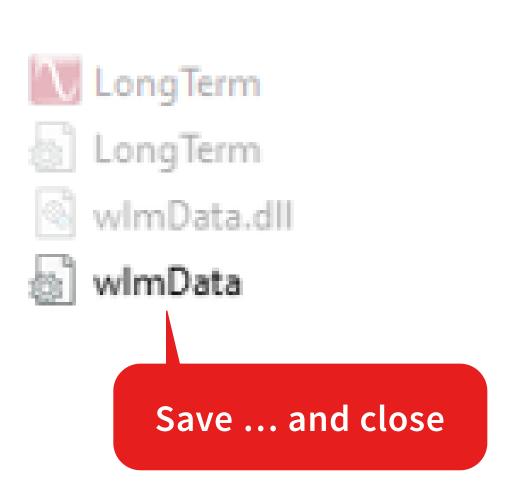
Find the factory set IP address in this file.

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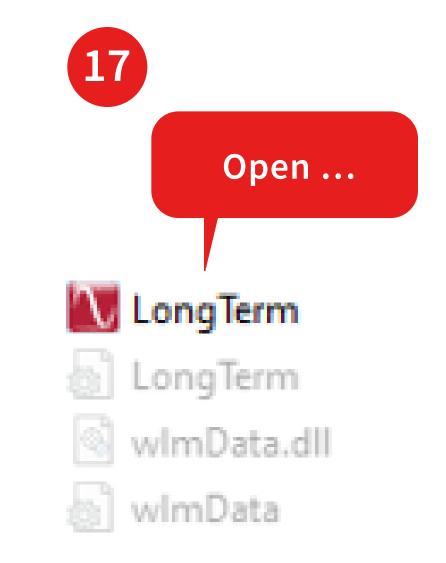


Replace the **factory set IP address** by the address in your clipboard.





Save the file wlmData.ini ... and close this file.



Start the LongTerm.exe.

This program allows you to log the wavelength and additional measurement data.

It also allows you to save the data as an ASCII file.

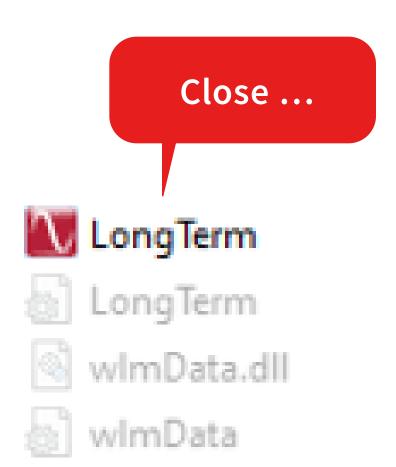
For a more detailed description of the application see:

HighFinesse Tutorial
Introduction LongTerm.pdf

The following pages will show you how to ...

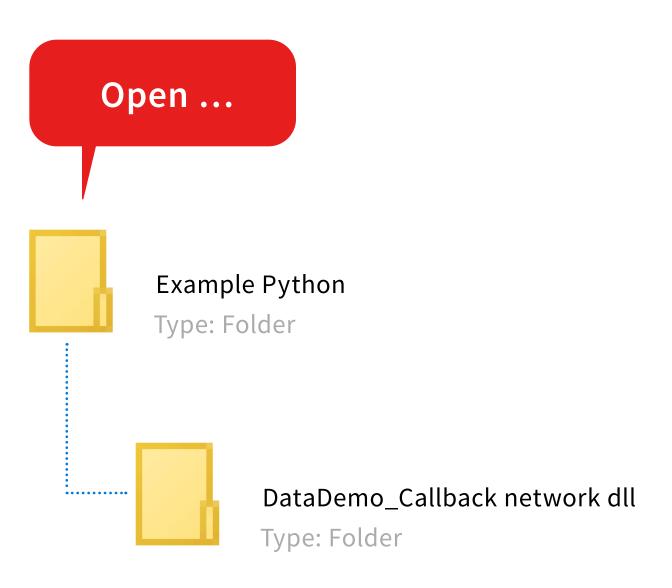
... collect the wavelength data using the Callback procedure.





Close the **LongTerm** application.

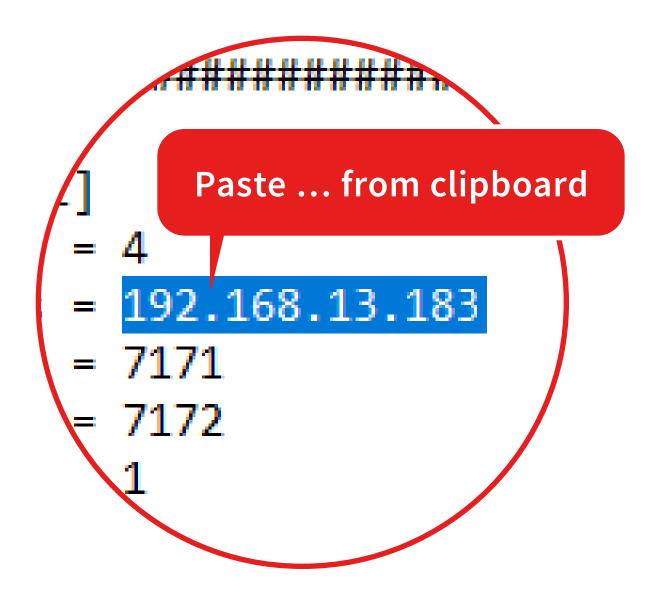




Now browse to the folder

Example Python/
DataDemo\_Callback network dll

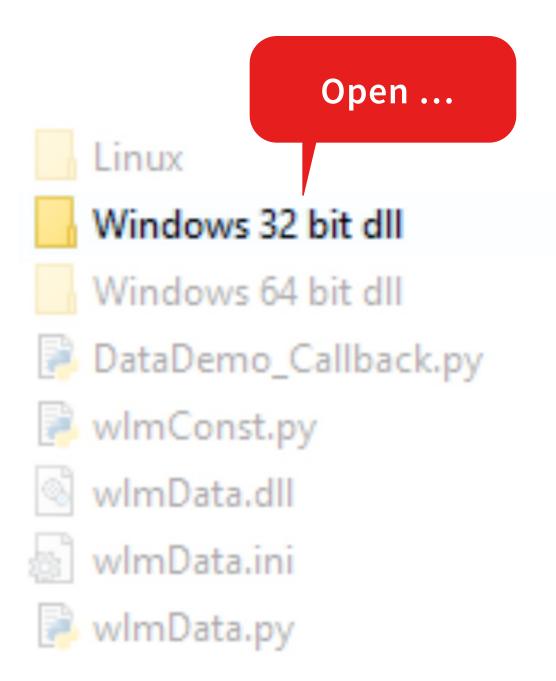
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Add the correct IP address to the wlmData.ini just as described in step 9.

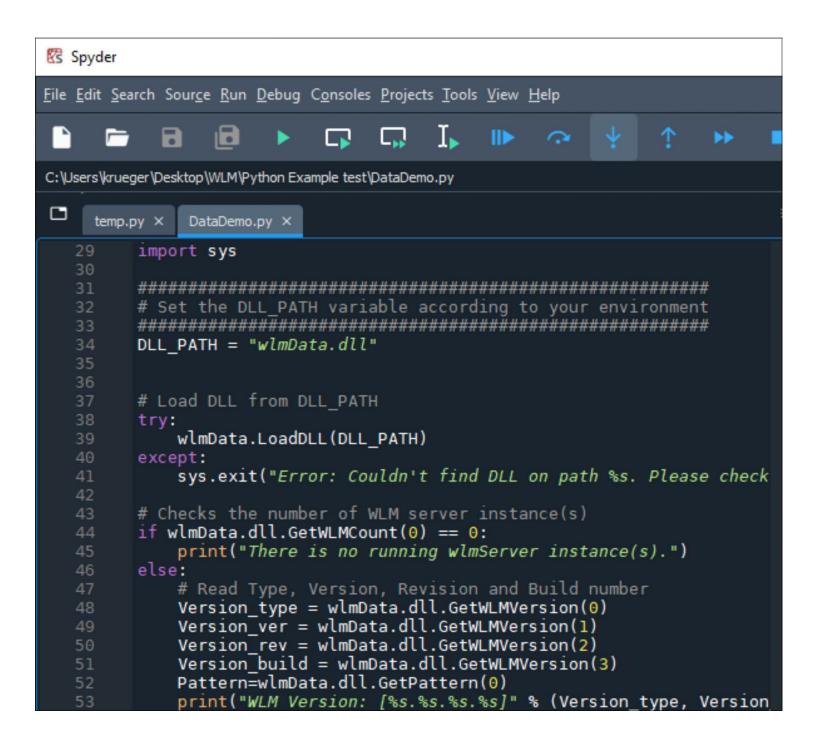
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If you using a **32-Python Version** replace the **wlmData.dll** by the 32-bit version that is located in the subfolder **Windows 32 bit dll** 





Open DataDemo\_Callback.py
with a suitabel program (for example
Spyder).

This script shows you how to efficiently collect the wavelength data using the Callback procedure. This is a good starting point for your own application in Python.

Follow the instruction in the **External Access Guide.pdf** to write your own code.

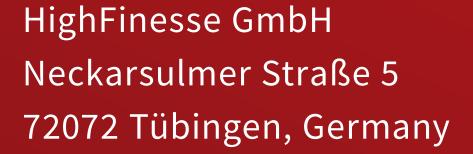
If you would like to have a deeper understanding on the HighFinesse NetAccess solution please take a look in the ...

... HighFinesse NetAccess userguide, Manual and External Access guide.

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