

# HighFinesse Tutorial Control the Wavelength Meter with your own application via the network

Tutorial · Control the Wavelength Meter with your own application via the network · 3-2025 This document provides general information only and may be subject to change at any time without prior notice.

#### Overview

## This tutorial shows you how to ...

# ... control the 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 non-standalone wavelength meter or laser spectrum analyzer. 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. **Further information** 

HighFinesse User Manual WLM Network Solution



**Connect** the **wavelength meter to a computer in the network**.

Start the wavelength meter software ont he server-pc.

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) on both the Server and Client PC.



# 2

 $\bigcirc$ USB

Download the HighFinesse NetAccess Accessories from the link below

https:// www.highfinesse-downloads.com/ download/ edcsc5ypvsua

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### HighFinesse NetAccess Accessories.zip

Type: ZIP archive

Find the ZIP archive HighFinesse NetAccess Accessories on the USB stick.



Extract the ZIP archive HighFinesse NetAccess Accessories.





Open the extracted folder HighFinesse NetAccess Accessories.

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Copy the folder **wlmData Server** to your Server-PC and start the wlmDataServer.exe.



to your client-PC.





NetGUI for generating the correct wImData.ini

Example Longterm







Example LongTerm Type: Folder

Open the folder Example LongTerm ...

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



; @brief Example configuration file for HighFinesse N

#### 

; wlmData.ini example scenario 1 configuration file 



- ; Default settings (i ; IPv4 ; Instrument server I ; Set/Get TCP Port nu ; CallbackProc/Ex TCP ; ConvertUnit / Conve ; network offload (1=
- ; Loglevel: Warning
- ; Error signaling: Lo

; wlmData.ini example scenario 2 configuration file 



Find the **factory set IP address** 





Replace the **factory set IP address** by the address of the server-PC.

This information is available by running ipconfig/all in the command prompt.





## Save the file **wlmData.ini**

... and close this file.



### Open ...

This program allows you to **log** the wavelength and additional

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 and copy it to your client-PC.

Example Python

DataDemo\_Callback network dll Type: Folder



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



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** 



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Open **DataDemo\_Callback.py** with a suitable 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 and manual.





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