HighFinesse

The Standard of Accuracy

HighFinesse Tutorial

Control the Wavelength Meter with your own application

This tutorial shows you how to …

… control the Wavelength Meter with your own application.

This guide is intended to give you a short introduction on how to control a HighFinesse non-standalone wavelength meter or laser spectrum analyzer with external software. It is discussed how to use a Python example as a starting point for your own application on the computer running the wavelength meter software.

If you are interested in remote control via the network instead, please take a look at our tutorial »**Control the wavelength meter with your own application via the network**«

https://www.highfinesse.com/en/howto/tutorial/How_To_Access_WS_EN.pdf
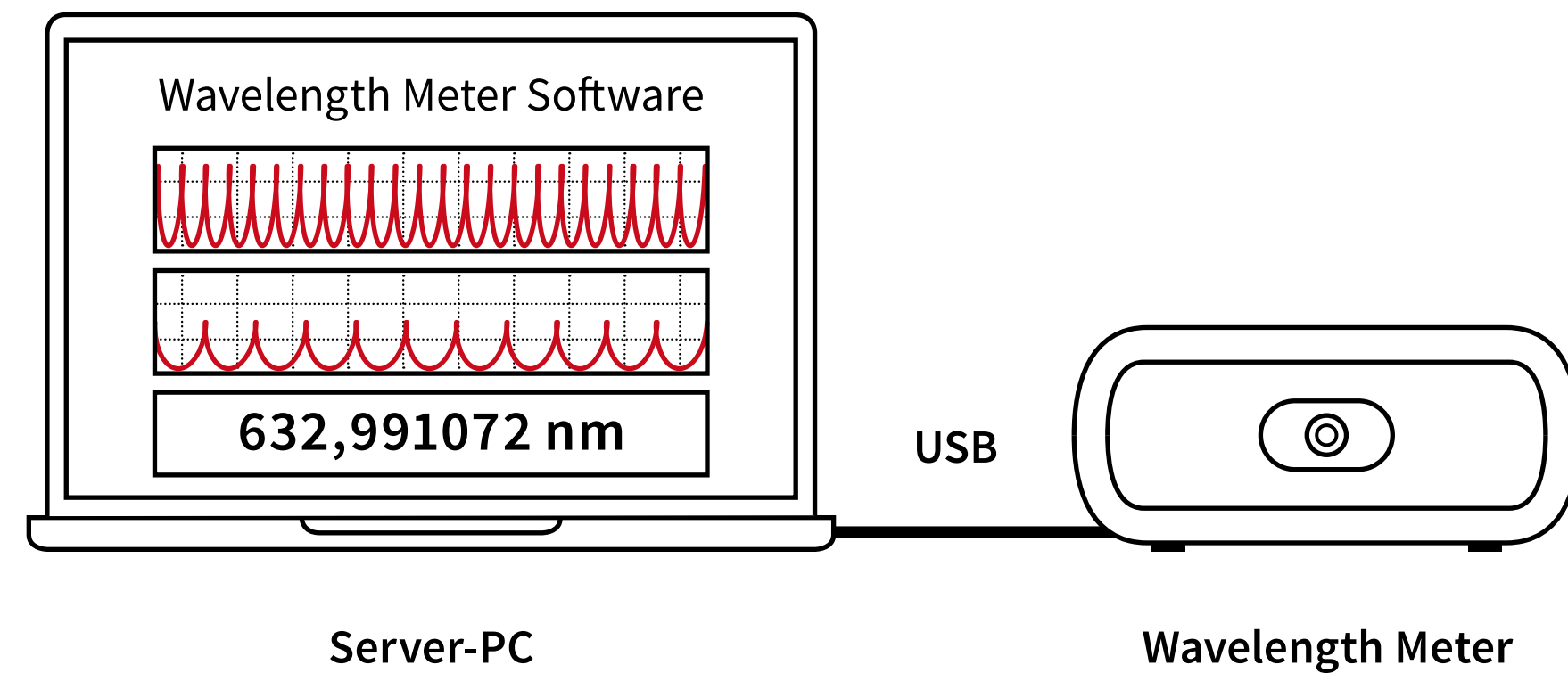
HighFinesse User Manual, Chapter 4

HighFinesse Python examples
https://
www.highfinesse-downloads.com/
download/t0849yd8uzpj

HighFinesse Labview (beta version)
https://
www.highfinesse-downloads.com/
download/etugh84b4px8

HighFinesse Matlab examples
https://
www.highfinesse-downloads.com/
download/2ytbyvzww8rb

1

Wavelength Meter Software

632,991072 nm

USB

Server-PC   Wavelength Meter

Install and connect the instrument as described in the relevant quickstart guide.

https://www.highfinesse.com/en/support/quick-start-guide.html

2

Download the HighFinesse Python Examples from the link below.

https://www.highfinesse-downloads.com/download/edcsc5ypvsua
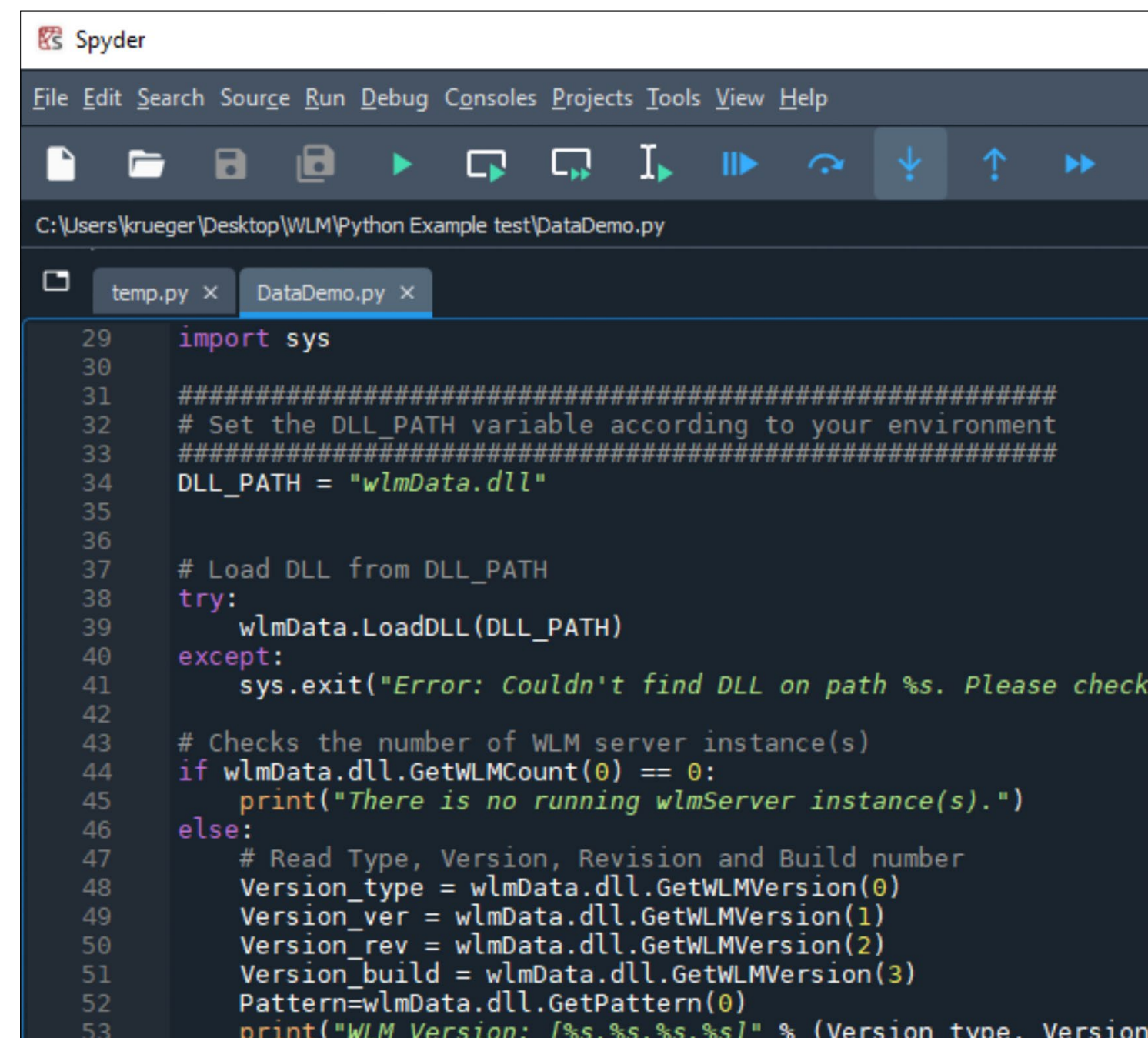
3

Run the wavelength meter software.

4

Make sure to **keep the files wlmData.py and wlmConst.py in the same path as the script** you would like to run.

Avoid copying any wlm Data.dll files to the path of the example.

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Open **CallBackDemo.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 **the manual (chapter 4)** to write your own code.

In most cases it is **not needed to specify the .dll path.** The example will work as it is.

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It is not working.
What can I do?

☐ Check if both the **wavelength meter software and the script run on the same rights level.**

☐ Verify that the **wavelength meter software is running**, which is **needed for successful communication.** It is possible to start the wavelength meter software (also with GUI hidden) via the API using the command ControlWL

☐ Verify that your **software is up to date.**

☐ **Contact HighFinesse** with the **serial number** of your instrument.

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Looking for another example?

Python example	Purpose
CallBackDemo.py	Efficient wavelength read out
CallBackExDemo.py	Efficient wavelength read out for multiple wavelength meters
DataDemo.py	Basic example
DataDemoPIDSetting.py	Laser Control/PID
DataDemoStartSoftwareOperation.py	Start the software and a measurement
StatusGUIDemo.py	Building a custom GUI
InstrumentListGUIDemo.py	Building a custom GUI for multiple instruments
LSAAnalysisDataDemo.py	Read the spectrum provided by HighFinesse Laser Spectrum Analyzer
PatternDemo.py	Read the interferograms
SetAveragingSettingNum	Averaging settings
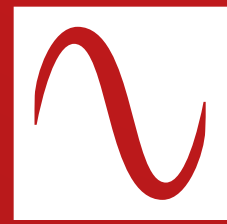
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