

ASPEN OneLiner Python API Setup Guide

IDE Setup Examples

This document provides examples of configuring a Python Integrated Development Environment (IDE) to use the OneLiner Python API.

Software requirements

- ASPEN OneLiner V15.7 or higher
- 32-bit Python 3.8 or higher (64-bit Python is not currently supported)
 - If you are using a network license for OneLiner, the OneLiner Python API will try to copy the OneLiner "hasp_rt.exe" file into the same folder where your python.exe is located. This allows the API to interact with the OneLiner license manager. Sometimes, this copy process fails due to write restrictions in the location. If you are using a network license and find that the hasp_rt.exe file is not copied into the folder where your python.exe file is located, please try to manually copy the hasp_rt.exe file into the directory where your python.exe is located. The default installation location of the OneLiner hasp_rt.exe file is C:\Program Files (x86)\ASPEN\1LPFv15\hasp_rt.exe.
- A Python IDE

Additional details

Please address questions to ASPEN support at support@aspeninc.com.

OneLiner Python API Directory and Files

The OneLiner Python API is installed during the OneLiner installation. The default OneLiner installation directory is:

• C:\Program Files (x86)\ASPEN\1LPFv15\

The core API file is a DLL located in that directory:

• C:\Program Files (x86)\ASPEN\1LPFv15\olxapi.dll

The Python portion of the API is installed in a subdirectory of the OneLiner installation folder:

• C:\Program Files (x86)\ASPEN\1LPFv15\OIxAPI\Python\

The Python API files are:

- OlxObj.py
 Object-oriented library for Python OlxAPI application development
- SamplesOlxObj.py Collection of code snippets with demo usage of the OlxObj library
- OlxAPI.py Python wrapper for OlxAPI.dll
- Samples.py Collection of code snippets with demo usage of OIxAPI function calls
- OlxAPIConst.py
 OlxAPI constants
- OlxAPILib.py Library of OLR file data and other routines
- AppUtils.py
 Library of useful re-usable routines

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VS Code Setup for OneLiner Python API

The following steps show an example of configuring Visual Studio Code (VS Code) to use the OneLiner Python API.

- 1. Launch VS Code.
- 2. Click the VS Code Command Pallete (Search Bar).

刘 File Edit Selection View Go Run … $\leftarrow ightarrow$,∕⊃ Search	

3. Type ">Python: Select Interpreter" into the Command Pallete and click the option that appears below the search bar (shown in blue text below). Note: You must type the ">" symbol at the beginning, but do not type the quotes. Alternatively, you can use the hotkey "Ctrl + Shift + P" to jump to the Command Pallete, including placement of the ">" symbol.

>Python: Select Interpreter	
Python: Select Interpreter	recently used 🐯

4. Click an appropriate Python version from the list of those available on your machine. Note: You must install Python separately from VS Code, and you must select a 32-bit Python with version 3.8 or higher.

Selected Interpreter: C:\Pythons\Python311-32\python.exe				
+ Enter interpreter path				
Use Python from `python.defaultInterpreterPath` setting C:\Pythons\Python311-32\python.exe				
★ Python 3.12.1 32-bit C:\Python\Python32_3121\python.exe	Recommended			
Python 3.12.0 64-bit C:\Python\Python64_3120\python.exe	Global			
Python 3.11.4 64-bit C:\Python\Python64_3114\python.exe				
Python 3.11.4 32-bit C:\Pythons\Python311-32\python.exe				
Python 3.11.4 32-bit C:\Python\Python32_3114\python.exe				
Python 3.9.13 32-bit C:\Python\Python32_3913\python.exe				

5. Run the following Python code in VS Code (copy-paste) to test the configuration. Note: If OneLiner is not installed in the default directory, you must update the directory paths in this code accordingly.

```
import os,sys
sys.path.append('C:\\Program Files (x86)\\ASPEN\\1LPFv15')
sys.path.append('C:\\Program Files (x86)\\ASPEN\\1LPFv15\\01xAPI\\python')
import 01x0bj
01x0bj.load olxapi('C:\\Program Files (x86)\\ASPEN\\1LPFv15')
```

6. If successful, you should see messages in the terminal similar to the following.

```
Loaded: C:\Program Files (x86)\ASPEN\1LPFv15\olxapi.dll
OlxAPI Version:15.7 Build: 35312
OlxObj Version:3.4.11
```

PyScripter Setup for OneLiner Python API

The following steps show an example of configuring PyScripter to use the OneLiner Python API.

- 1. Launch PyScripter.
- 2. Click Run Python Versions Setup Python Versions.



3. Click the gear symbol with a plus mark, and navigate to the folder of an appropriate Python installation. Note: You must install Python separately from PyScripter, and you must select a 32-bit Python with version 3.8 or higher.

Python Versions		×	
<u></u>)		
Name	Folder		
 Registered Versions Python 3.11 (32-bit) Python 3.9 (32-bit) Unregistered Versions 	C:\Python\Python32_3114\ C:\Python\Python32_3913\		
→ Python 3.11 (32bit)	C:\Pythons\Python311-32		
Select fol	der with Python installation inlcuding virtualer	nv and venv)	×
← →	✓ ↑ → This PC → OS (C:) → Pyth	hons > ~ C	Search Pythons P
Organize 🔻	New folder		≣ - 3
2024	0104_IBR_A Name	Date modified	Type Size
Pyth	onConfigFc 📁 Python311-32	9/28/2023 6:58 PN	/ File folder
Vend	lorCIRDLL		
	oCaseSequ		
, Jun 7 2023, 05:3 🗸 📮 This	PC		
> 📇 os	(C:)		
> 🏆 Netw	vork		
	Folder: Python311-32		
			Select Folder Cancel

4. Select the Python version from the list and click the gear symbol with an arrow symbol. Note: Your installed Python version may appear in either the Registered or Unregistered menu, depending on the options selected when installing Python.



5. Run the following Python code in PyScripter (copy-paste) to test the configuration. Note: If OneLiner is not installed in the default directory, you must update the directory paths in this code accordingly.



6. If successful, you should see messages in the terminal similar to the following.

Loaded: C:\Program Files (x86)\ASPEN\1LPFv15\olxapi.dll OlxAPI Version:15.7 Build: 35312 OlxObj Version:3.4.11

IDLE Setup for OneLiner Python API

Since the Python IDLE IDE is associated with only one Python installation, additional configuration is not necessary to use the Python API with IDLE.

The following steps show an example of configuring Python IDLE to use the OneLiner Python API.

- 1. Launch IDLE. Note: You must use 32-bit Python with version 3.8 or higher.
- 2. To test the configuration, run the following Python code line by line. Note: If OneLiner is not installed in the default directory, you must update the directory paths in this code accordingly.

```
import os,sys
sys.path.append('C:\\Program Files (x86)\\ASPEN\\1LPFv15')
sys.path.append('C:\\Program Files (x86)\\ASPEN\\1LPFv15\\OlxAPI\\python')
import OlxObj
OlxObj.load_olxapi('C:\\Program Files (x86)\\ASPEN\\1LPFv15')
```

3. If successful, you should see messages similar to the following print in the terminal.

```
Loaded: C:\Program Files (x86)\ASPEN\1LPFv15\olxapi.dll
OlxAPI Version:15.7 Build: 35312
OlxObj Version:3.4.11
```