UPython2 Pro



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Online Documentation | <u>Discord</u> | <u>Bug & Features Request</u> |

https://perfect-sauce-33c.notion.site/UPython2-Proc63d2bb387c04d0bab0ce513e7175d6f

UPython2 Pro includes all the functions of the UPython2 free version. For more details about UPython2 and the foundation of UPython2 Pro, please see here.

https://perfect-sauce-33c.notion.site/UPython2-7431b13d3f0f4a41aa6fb6e16da782a3

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- What is new in Pro?
- Installation:
- ▶ Please feel free to play the demo.

Tips:

Advanced APIs

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Unity Asset Store



Who needs the Pro version?

Although the free version can already meet most of the needs, if you need advanced features and better performance management, please try the Proversion.

What is new in Pro?

- Support persistent connection function. There is no need to create a new Socket for every call to Python. Avoid the server from exhausting resources because it frequently accepts client connection requests, creates a large number of sockets, and allocates a large number of ports.
- Asynchronous call. Allows you to get the results of Python Call directly
 without using callback functions to get the results. It will make it possible for
 you to manage your pipeline more smoothly.
- **Supports big file transfer.** Allows you to send a big file from Unity to Python Server-side and save that file onto Python Server File System. This feature gives you the ability to do some Machine Learning things. E.g., capture a screenshot from Unity and send it to Python Server for the object dictation.
- Automatically manage all sockets without manual management.

Installation:

Import it to your project.

NOTE: DO NOT forget to download the [Python] folder. You NEED the Python server!!! You can put this folder anywhere. Download it from my Github repo.



► Please feel free to play the demo.

Tips:

By default, the port of the Big File Channel is **7777**. Please see the Demo/1.SendBigFile for more detials.

Enjoy it and good luck.

Advanced APIs

public void Call(string channel, string cmd, UnityAction<string> result)

The Call function with the given channel allows establishing a persistent connection with python.

The first time you call this function, the server will automatically create a persistent connection for you, with the channel name as the identifier. This connection will always exist unless the Close() function is called.

When you call this function for the second time, the same channel will be automatically assigned to you, avoiding the server crashing due to creating too many connections.

If the current channel is running or occupied, the new call will be suspended until the channel is available, the new call will automatically continue to execute.

For more details, please see the demo.

You can create multiple channels at the same time. They are independent of each other. Therefore, you can use this feature to design your pipeline flexibly.

```
public void Close(string channel)
```

Close a channel. In most cases, you don't need to call this function.

```
public void ChannelStatus(string channel, UnityAction<string, bool> result)
```

Check the channel's status

```
public async Task<string> ACall(string cmd)
public async Task<string> AChannelCall(string channel, string cmd)
public bool AChannelStatus(string channel)
```

These functions start with "A". They allow you to get the return value directly in the asynchronous function without returning the value through the callback function. This feature may make your pipeline design smoother.

public async Task ASendBigFile(string filePath, byte[] sendingBytes)

Send a big file to Python Server

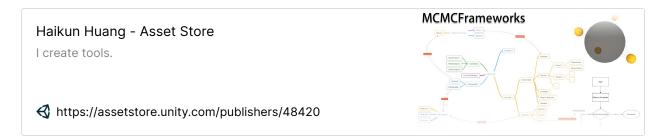
Please see the Demo/1.SendBigFile

For more details, please see the demo.

Known Issues:

1. When you use XChannelCall() functions, it may get a socket error if the Python Server re-boot for some reason. In that case, use XCall() instead.

Unity Asset Store







About Me:

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https://quincyhuang.github.io/Webpage/index.html





***** Bug Report & Features Request

<u>quincyhuang/MCMCFrameworks_Public_Repo</u>