SAE3.02 – Surveil'App
Users documentation

Welcome to you, dear users of Surveil'App! In this detailed document you will find the different steps to use the application. Thanks to this document, you will be able to install the necessary tools, then start the application and finally use it.

I. Installing the tools

Useful packages and tools

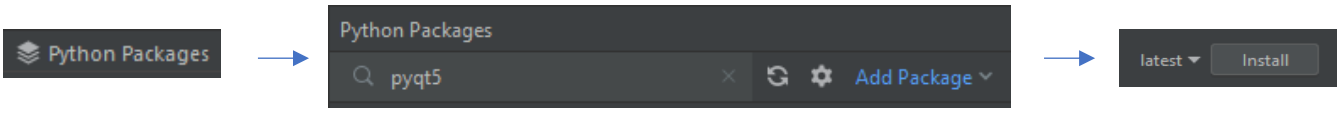
The initialization of the different necessary packages is a very important step, so here is a list that is mandatory to install in order to be able to use the application. First, you need to install "psutil", useful to get information about your machine (memory and processor usage for example). Secondly, probably the most important package, "PyQt5", allowing the creation of the final graphic interface. The rest of the packages do not require any download but a simple import, already done on the client.py file!

How to install these packages?

To install the necessary packages, there are two main solutions. First, simply run the following commands in your Python Terminal:

```
PS Microsoft.PowerShell.Core\FileSystem::\\uha.fr\Users\e2100847\Documents\BUT2\SAE3.02\SAE3.02> pip install psutil
PS Microsoft.PowerShell.Core\FileSystem::\\uha.fr\Users\e2100847\Documents\BUT2\SAE3.02\SAE3.02> pip install pyqt5
```

If you are not familiar with the commands, you can do it graphically, with the Python Packages button (notably present on the PyCharm interpreter), then type the name of the package in the search bar, click on the right result then click on the Install button (see below) :



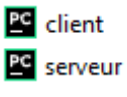
That's it, the initialization is over, let's go to the startup of the application !

II. Starting the application

Once ready, having followed the installation of the necessary tools, you will have to launch the application to benefit from it. For that, nothing complicated, just follow these few instructions! Just like the installation of the packages, you can choose to run the application using a graphical interpreter or simply on the command line, so we will detail the two ways, it's up to you to choose your preferred solution

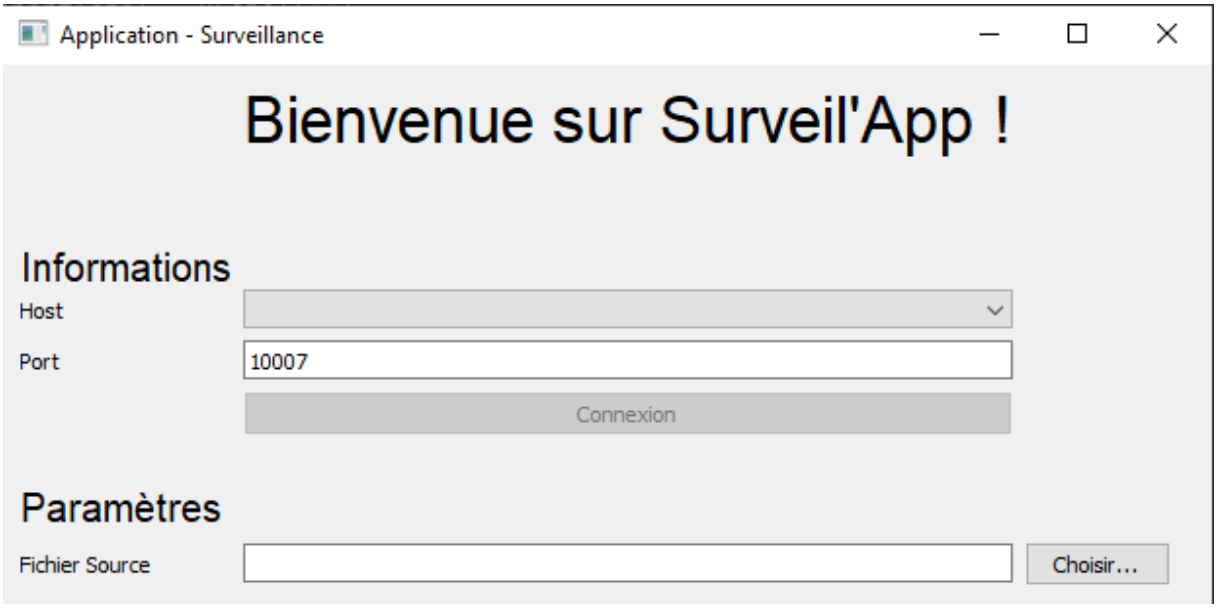
With an interpreter (PyCharm)

First, go to the folder containing the two files: client.py and server.py. Once done, double click on the two files to execute them.



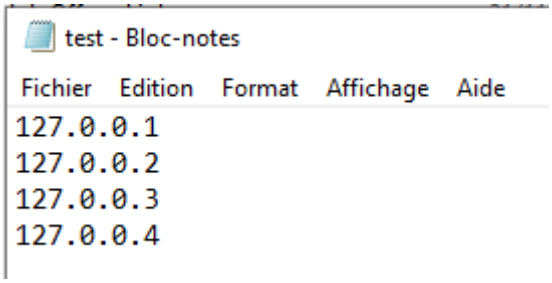
Once opened, you just have to launch one after the other (in any order) the programs, using the green arrow, visible below, located at the top right (on PyCharm).

Have you reached this point? Congratulations, your application is now open and you should see this on your screen

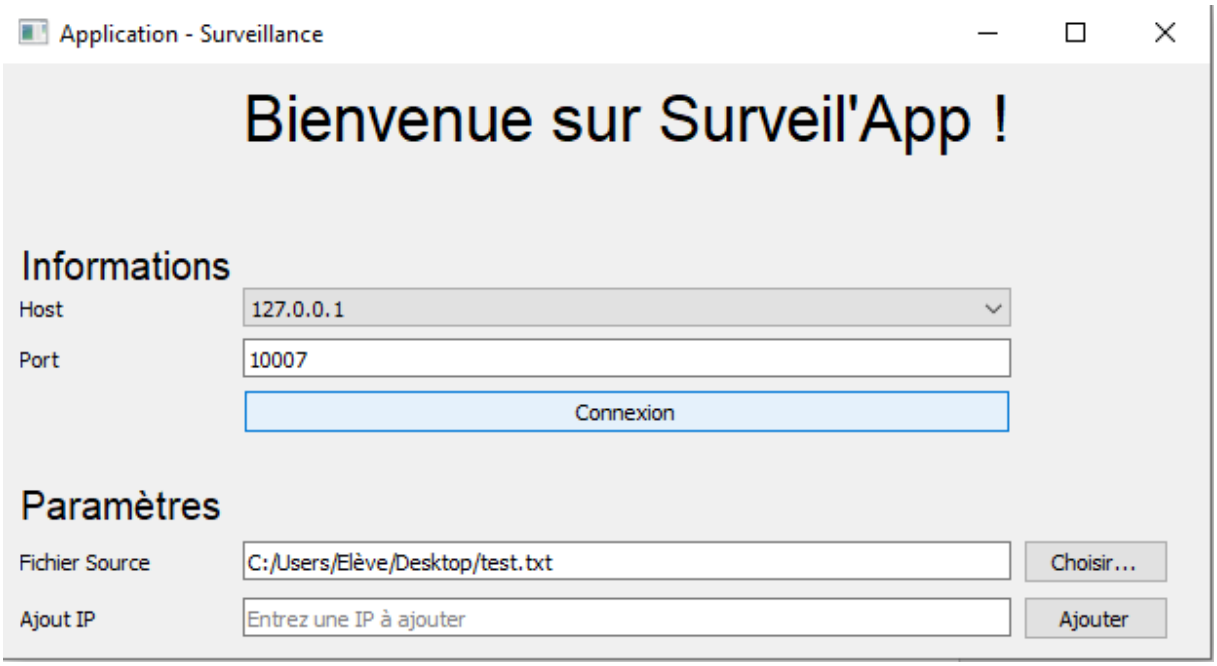


III. Use

Welcome to the most interesting part, the use of the application! In this section we will explain in detail how the application works. Once launched, the first step is to link a file in .txt format containing IPs, with the following format to be respected:

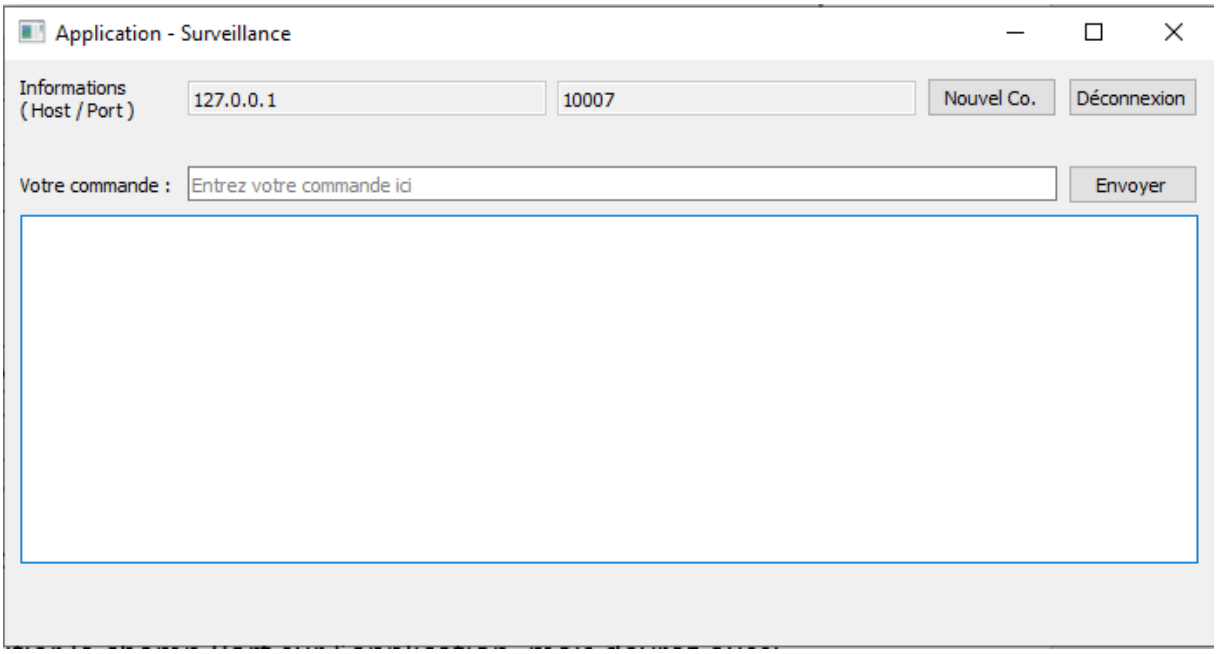


To choose the file, created beforehand, you will just have to use the "Choisir..." button located at the bottom right of your application. A file explorer will then open, and it is up to you to select the desired file! Once your file is selected, three new things appear! Firstly, the list of IPs present in your file is now in the "Host" drop-down menu, so you must choose the one you want. Secondly, you can now connect, as the button is now usable and no longer greyed out. Finally, if you forget, you can always add an IP using the last field at the bottom of the application, called "Ajout IP". You enter a new IP, then click on "Ajouter", in order to get it in the drop-down menu as well as in your initial selected file. The three new fields are shown below for clarity.



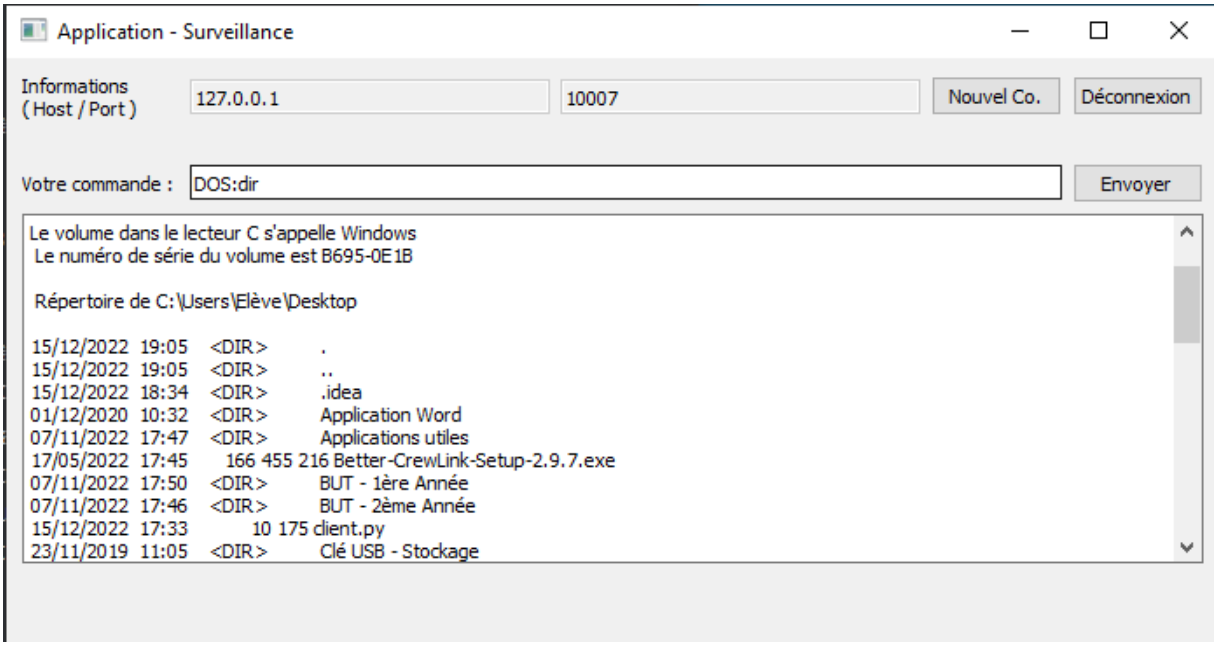
Once the IP is selected, it is important to choose the right port. In our case, it is set to 10007 on the application as well as on the server side, following the directives of the specifications. If you want to change this, you can change the Port field on the application, but you will also have to change the code on the server side (line 10 of the code). Once all this is configured, you are ready to connect to your remote server (or machine), before that, one last step is necessary, click on the "Connexion" button !

You are finally connected! If everything works well, here is the rendering below



At the top you will find your connection information, with the IP and port. You will also find the "Nouvel. Co." button, which provides the possibility of multi-connection by opening a new window, so you can manage several remote servers. Next to it is the "Logout" button, which allows you to log out and close the application. Just below, you will find the "Order" field, allowing you to enter your order as indicated. Once written, you can send your order in one of three ways: using one of the two

Enter keys on your keyboard or by pressing the Send button on the right. Note that the result of your order (information, text, other...) is displayed in the large white area below the "Commande" field. Your results accumulate in the area, so you have the ability to review (using the scroll bar or your scroll wheel) all of the results obtained. Here is a quick example of a possible return, here obtained following the "DOS:dir" command



You are now able to use the application to the full, except for one detail, since there are some specific features on the commands. Indeed, there are three main types of commands, those performing an action on our application, those returning practical information and finally, all other commands, in which it is necessary to specify the OS on which it is executed. The first type of command groups together the commands affecting the application and we find three of them:

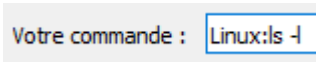
O disconnect: disconnects the interface, freeing the monitored machine to allow the server to be freed for other requests
O kill : turns off the server, the previously connected client can no longer send commands.
O reset : resets the server, it returns to the initial state: waiting for a connection.

The second type of command groups together those providing practical information, here is a complete list:

o OS : returns the OS of the machine (Linux, MacOS, Windows...)
o RAM: returns information about the memory (RAM)
o CPU: returns information about the CPU
o IP: returns the IP address of the machine
o Name: returns the name of the machine
o python --version : returns the installed python version
o ping IP_A_PING : returns the ping result

Regarding the last type of command, making a list would be impossible, since the application interprets any type of command, as long as the OS is compatible and specified. In fact, in front of specific commands, it is important to specify the desired OS, "DOS" for Windows, "Linux" for Linux and the same for other possible operating systems. Here are some examples to make sure you have understood correctly!

Windows Example : 

Linux Example : 

That's it! You are now ready to use Surveil'App, the first monitoring application for your remote servers! Thank you dear users for installing Surveil'App and find our other applications on our website!