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SAE 3.02

Develop communicating
applications

DOCUMENTATION

User part

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1. Introduction

a. Use of the application

This application enables us to monitor servers or clients' machines through a simple graphical interface.

To launch the GUI, just launch the GUI.py file.

To start a server, use the command "python .\mainserveur.py" and enter the desired port.

b. Presentations of the different functionalities

I. Simple commands

OS: displays the server OS

IP: displays the IP address of the server

Name: displays the name of the server

CPU: displays the % of CPU usage (+ a graphic)

RAM: displays total memory, used memory and free memory remaining

getall: displays all previous information

II. Advanced commands

Disconnect: disconnects the client

connexion information: displays the connections information

Kill: kills the server

Reset: reset the server

III. Free commands

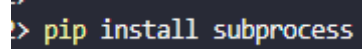
All commands available in a classical terminal.

2. Prerequisites

In order to use this application, you will have to install several libraries, such as “sys”, “psutil”, “socket”, “threading”, “time”, “platform”, “subprocess”, “Qt”.

To install these libraries, you just need to type “pip install” followed by the name of the library.

For example:

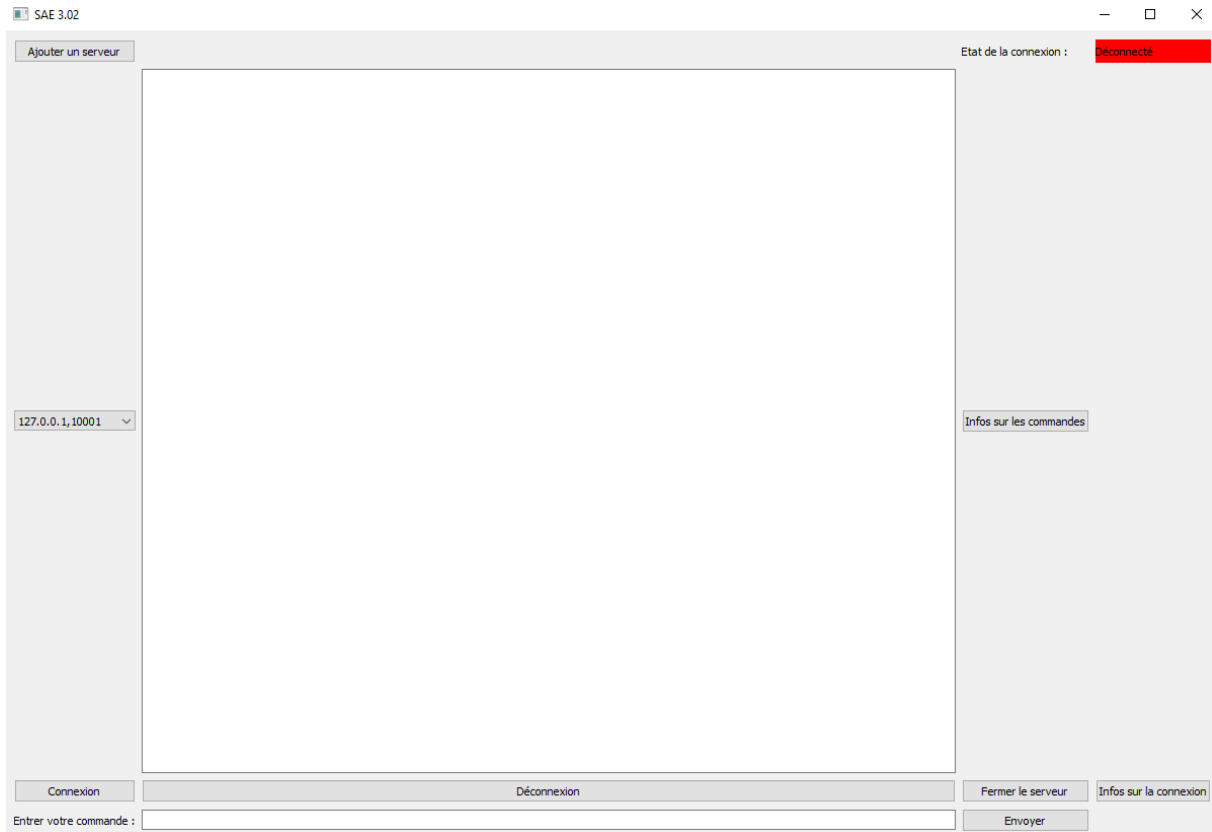
A terminal window with a dark background. The prompt is a green character, and the command 'pip install subprocess' is written in a light blue font.

Here is the complete list of commands:

```
pip install sys
pip install psutil
pip install socket
pip install threading
pip install time
pip install platform
pip install subprocess
pip install os
```

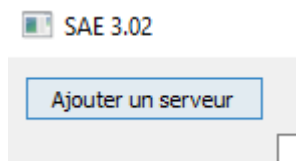
3. GUI presentation

The application's interface is as follows: (I know it's all written in French but no worries you'll make it)

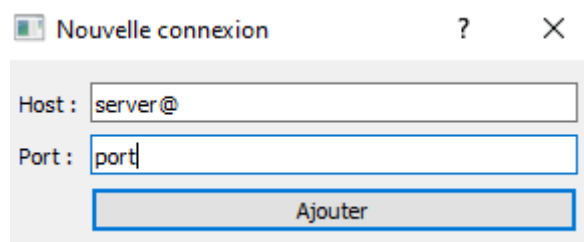


a. Connexion

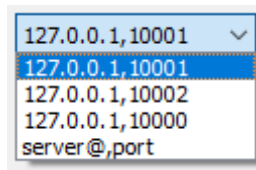
The begin with, you will have to add a new server (your server). To do so, you must click the button at the top left of the GUI which says “Ajouter un serveur”.



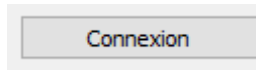
A new window appears, there you must fill in the address of your server and the port you want to use for the connection. Once done, click the “Ajouter” button.



Then you will have to select your server, which is located in the drop-down menu on the left side.



Once you have selected your server; all you have to do is connect. Nothing easier, you must click the “Connexion” button on the bottom left.



You can verify that the client has logged in by checking if the background of the text in the top right corner has changed from red to green.



The message “Connexion réussie” also appears in the console.

(You can also use your own list of servers and port by implementing your .txt file in the code, c.f. the developer documentation.)

b. Command section

You can enter all the commands seen previously (cf. [b above](#)) in the command section.

(You can also find the list of commands by clicking on the button “Info sur les commandes” in the middle on the right).



Once the command is entered, press the enter key on your keyboard, or the “Envoyer” button to send the command to the server.

The server’s response will appear in the console.

(e.g.)

The screenshot shows a web application interface for managing a server connection. At the top left is a button labeled "Ajouter un serveur". To its right, the text "Etat de la connexion :" is displayed. Below the button is a dropdown menu showing "127.0.0.1, 10001". In the center is a large text box containing the message "Connexion réussie" and "Commande envoyée : IP 192.168.1.17". To the right of this box is a button labeled "Infos sur les commandes". At the bottom, there are three buttons: "Connexion", "Déconnexion", and "Fermer le serveur". Below these is a text input field labeled "Entrer votre commande :" and an "Envoyer" button.

c. Disconnection

You have 3 different ways to disconnect. The first one using a command (cf. [b above](#)). The second one is by clicking either the "Déconnexion" button or the "Fermer le serveur" button. The first one disconnects the client from the server moreover the second one close the server. The last way is to close the window by clicking on the cross at the top right



If you have any other questions, feel free to contact me at: jules.brutschy@uha.fr,

Enjoy!