

Sigma access

Sigma is a server hosted at Técnico that can be remotely accessed by student. It runs Linux and is a shared memory multiprocessor computer, with most of the necessary tools (compilers, libraries, ...)

Student can access this computer in two different ways to:

- remote terminal – to execute commands
- file transfer – to download and upload files

1 sigma remote terminal

To access a command line in sigma it is necessary to use the ssh protocol.

In linux or MAC os X the students only need to issue the follwoig command in a terminal:

```
ssh istXXXXXX@sigma.ist.utl.pt
```

and replace **XXXXXX** by the correct istID.

After connecting student should type the password. If correct, students can now start to use all the installed programs and compilers

In windows it is necessary to install a ssh client such as:

- putty - <https://www.putty.org/>

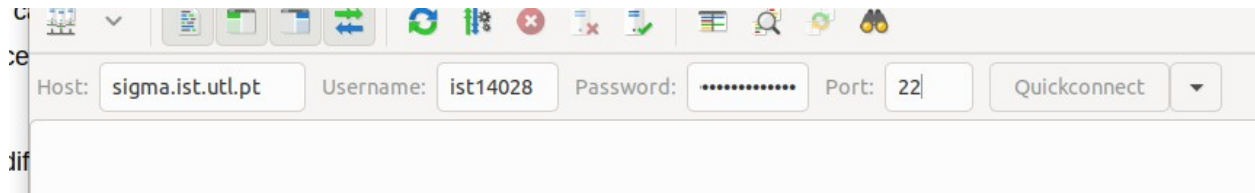
2 file transfer

To transfer files to/from the sigma it is necessary to use a **sftp** client.

The best **sftp** client is **filezilla** that is available for Windows, Linux and MAC OS X:

- <https://filezilla-project.org/>

to connect students can use the **quickconnect** as illustrated:



After connection students can transfer files by dragging files in the presented windows.

3 Error accessing sigma

Since the sigma is composed of multiple computers and when doing a ssh the connection can be done to different computers.

Because of this, some times there is the following error when trying to connect:

```
jnos@joao-PC:~$ ssh ist1xxxx@tecnico.ulisboa.pt  
istxxxx@tecnico.ulisboa.pt: Permission denied (publickey).
```

This happens because the information about the sigma computer has changed.

In sigma this is normal.

To connect it is necessary to clear the ssh client stored information by doing the following command:

```
jnos@joao-PC:~$ rm -fr ~/.ssh
```

Now when connecting to sigma the client asks for the user to accept the new key