

Installation information

The **GHOST-NOT** and **GHOST-YES** are utilizing the **perl Tk** module and the ViennaRNA package.

- Installation information for the ViennaRNA package can be found at the web page of the Institute for Theoretical Chemistry of the University of Vienna:

[TBI - ViennaRNA Package 2 \(univie.ac.at\)](http://univie.ac.at)

Note: You may be asked to install the C compiler for Ubuntu OS 20.04 in order to install the ViennaRNA package.

- **To install the compiler**

1. Open the Terminal window in Ubuntu 20.04
2. Write in the command line: `sudo apt-get update -y` (will ask for administrator password due to the `sudo` command)
3. After it runs the command, write: `sudo apt-get install -y c-compiler`

- **To install the Tk module needed for the programs interface:**

1. Open the terminal window in Ubuntu.
2. Write in the command line: `sudo apt-get update`
3. After it runs the `get update` command, write: `sudo apt-get install perl-tk`

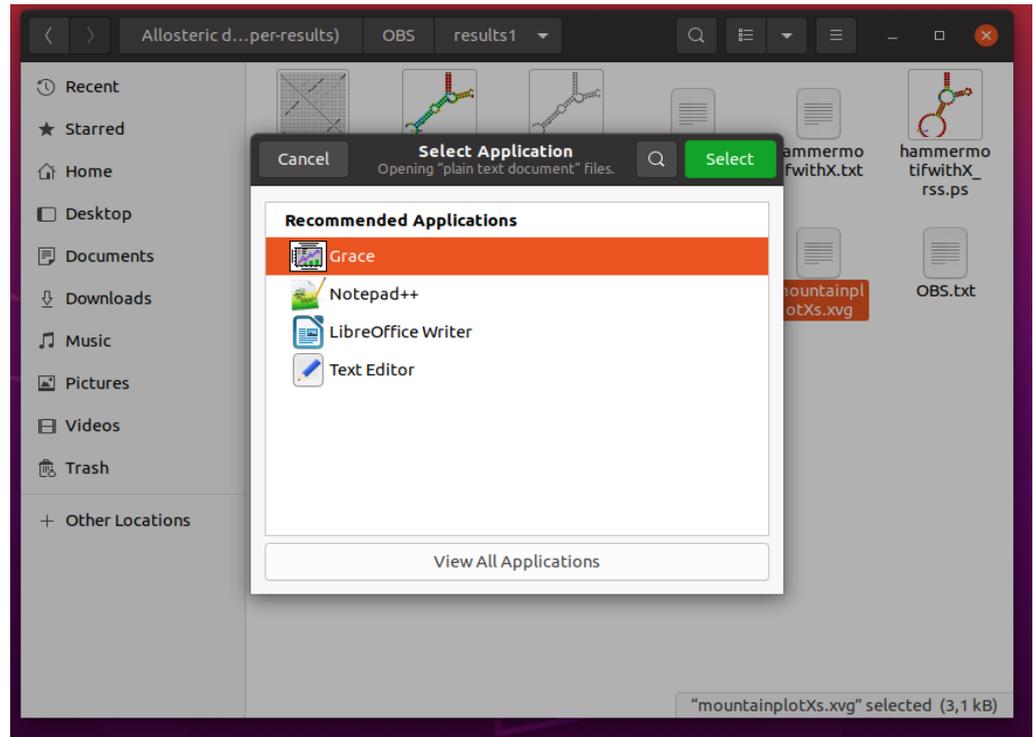
This will install the Tk perl module in the Ubuntu system.

- **Installing the xmgrace in Ubuntu 20.04**

If you want to use the xmgrace program to visualize the mountain plot .xvg format mountain plot files.

1. Open the terminal window in Ubuntu.
2. Write in the command line: `sudo apt-get update`
3. After it runs the `get update` command, write: `sudo apt-get install grace`.

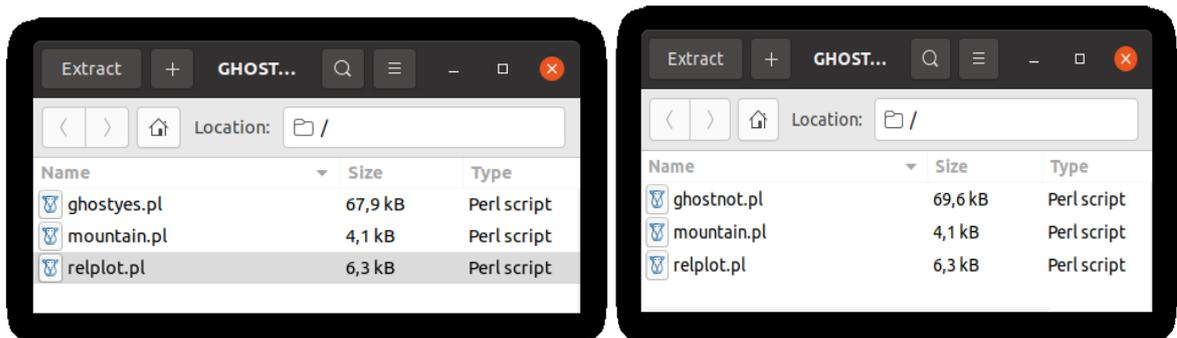
To open the xvg file, right click on the file choose “Open with other application” and select the Grace application.



- **Running the GHOST-NOT and GHOST-YES:**

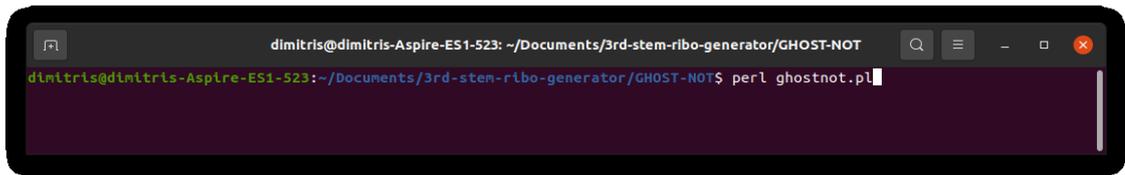
To run the **GHOST-NOT** or the **GHOST-YES** program

1. unzip the file you received.

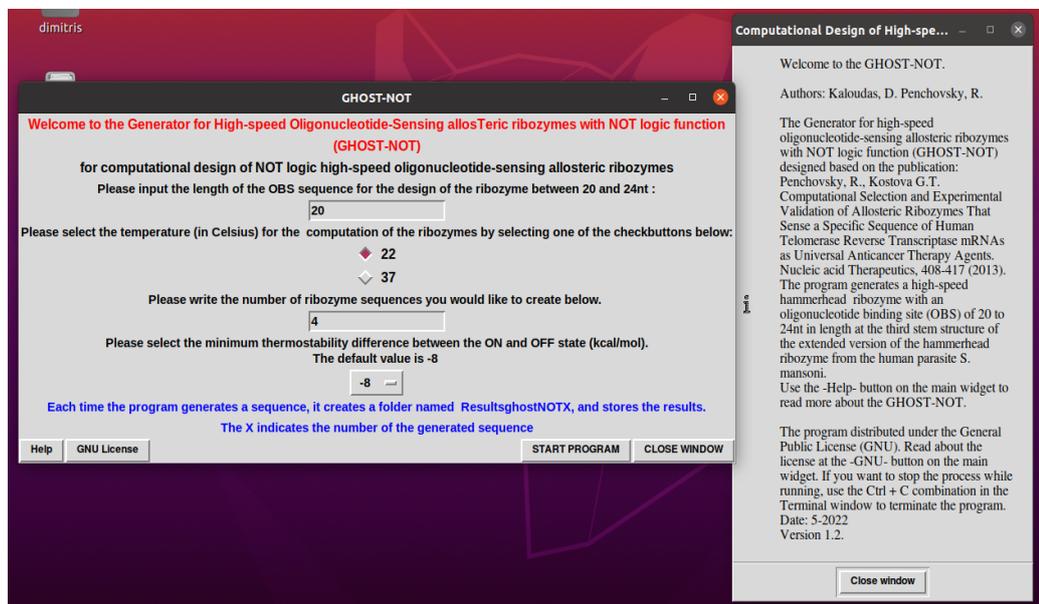


2. Open the folder you have extracted the files in the terminal window in Ubuntu.

- Write in the command line: **perl ghostnot.pl** (if running the **GHOST-NOT**) or **perl ghostyes.pl** (if running the **GHOST-YES**).



- Following, the program interface will appear together with a welcome message. (Example showing the GHOST-NOT interphase).



- When the program finishes with the generation of the sequences, a notification widget will pop up.

