Getting Started with vPhyloMM (Bacheler Dataset)

1. Make sure to have installed vPhyloMM and its dependencies (see `Installation/`).

2. It is highly recommended to read the perldoc that comes with Run_vPhyloMM.pl by running:

    ```
    perldoc Run_vPhyloMM.pl
    ```

3. To immediately run vPhyloMM from the command line, terminal, or shell use:

    ```
    perl Run_vPhyloMM.pl --variables-file=sample_variables.txt
    ```

    This is equivalent to immediately clicking "go" in the GUI (described below) but does not load any of the GUI dependencies. It is acceptable for calling vPhyloMM from a script or remote terminal. This might be your only option if you are unable or do not wish to install ActivePerl because of a known bug with the perl.org distribution of perl and the Tkx module.

4. An interactive GUI is also available if the `--gui` flag is used.

    ```
    perl Run_vPhyloMM.pl --variables-file=sample_variables.txt --gui
    ```

5. Once the vPhyloMM window has loaded, it will be ready to run the vPhyloMM algorithm on the included sample "Bacheler dataset" which should already be present in the same directory as vPhyloMM.pm (the directory which contains the dataset is called DNA).

6. Select which reports will be generated in the "program_options" section.

7. The executable for Sliding MinPD is called `minpd` or `minpd.exe` on Windows machines (Important! See Installation/Sliding MinPD.pdf for instructions on setting up minpd properly). If it is not in your system path (if typing minpd at the command prompt does not run Sliding MinPD) then you will need to tell vPhyloMM where to find it by setting the SlidingMinPD variable:

    click on the "+" symbol to the left of "SlidingMinPD" and then either typing the path or clicking the box labled "..." and browsing there (see image below). This will be the same directory that you chose in step 5 of Sliding MinPD installation.

8. The same applies for the R executable, although the default setting here should work if R has been properly installed.
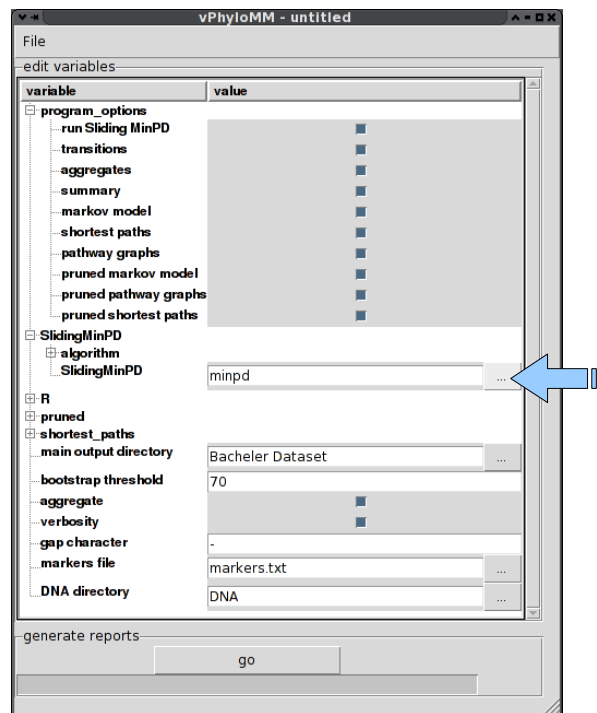
Selecting the minpd executable.

9. Choose the main output directory. This can be an absolute or relative path and is the directory where the results will be stored. If it does not exist, vPhylomm will create it if possible. The default is "Bachelor Dataset".

10. The settings are reset each time vPhylomm is loaded. To save your settings and recall them later click on "File->Save As..." In the upper left-hand corner of the window. Choose a folder and a name for the setting and click Save. The next time vPhylomm is loaded you can recall these settings by clicking on File->Open... and choosing your saved file.

11. Click the "go" button at the bottom to generate the selected reports.

12. The output files will be placed in the "Bacheler Dataset" directory unless you have changed the main output directory.

13. Changes to vPhyloMM settings can be done by manually editing the variables file or by selecting the desired options in the GUI and saving a new variables file as described in [10].

14. If GraphViz and the GraphViz perl module were not installed, the pathway graphs and pruned pathway graphs options cannot be used. In the GUI they can simply be unchecked. If using the CLI, they will have to be set to '0' in the variables file.

15. To create a new variables file containing the default settings use:
    perl Run_vPhyloMM.pl --new=<FILENAME>