

## GREGOR OVERVIEW

Gregor is a user-interface that makes it easy to construct Mendel control files and then run Mendel. There are versions of Gregor for MS Windows and for X-Windows compatible interfaces under Linux and Solaris.

At least under MS Windows, the Gregor executable should be left in the same directory as the Mendel executable. Of course, a “shortcut” pointing to Gregor can be put anywhere. Under Unix-derived systems, it is easy enough to add the directory containing Mendel into the PATH variable, in which case the Gregor executable does not have to be in that directory. For instructions on adding to your PATH variable, see the ReadMe file that came with Mendel.

Gregor was written by Robert Riley in Tcl/Tk to be platform independent.

## USING GREGOR

Gregor is used through a series of buttons that appear in its main window. Although the buttons function independently, they have been arranged in the order that they are usually used during a Mendel run.

### 1. Choose Working Directory

This button allows the user to set the Working Directory that contains their data files. It is easiest to have all of the Mendel data files for a particular run in the same directory.

### 2. Read in Control File

The user may read Mendel control parameters from an existing file, or may enter them *ab initio*. This button governs the former option. (The later option is discussed in section 3. below.) After clicking on this button, a dialog box appears to allow the user to specify a file to be read. After a file is chosen to be read in, a new window “Modify Control Parameters” will automatically appear. This new window allows the user to verify the control parameters read from the file, and to modify them, if desired. This window is described in the following section.

### 3. Modify Control Parameters

This option makes it easy to set the Key Words needed by Mendel. The Key Words are broken into manageable subsets: “Input Options (Basic)”, “Input Options (Additional)”, “Output Options”, “Model Options”, “Search Options”, and “Complexity Options”. Each of these subsets has its own window in which those Key Words may be set.

Next to each Key Word is a button with a “?” on it. This button will bring up an information screen with the default value (if any), the type, and a brief definition of that Key Word. For more information on how to use these Key Words, please see the Mendel documentation. All the Key Words are listed in the index in the Mendel documentation.

If the Key Word names a file, then there is a button named “Choose File” next to the Key Word. Clicking this button brings up a standard dialog box for choosing a file. If the file does not yet exist, then you should simply type in the new filename, rather than use the “Choose File” button.

If the Key Word is allowed to take on only a limited set of values, then next to the Key Word is a drop-down menu that lists only those values.

If the user has already read in control parameters via a file (see section 2. above), the forms for entering the Key Word values will already be populated with those values. The values in these forms still may be modified as the user sees fit. Clicking “OK” on any of the forms will simply store the values within Gregor.

Please note that after the Key Words have been set as desired, it is very important to move to section 4 below, before running Mendel.

#### **4. Write Control.in**

This button will take all the Key Words that have been set and create a file called “Control.in” in the Working Directory that was set in section 1 above. When run, Mendel will read the values in that file. Any existing file in that directory with the name “Control.in” will be overwritten.

#### **5. Run Mendel**

This button tells the operating system to run Mendel using the control file written in section 4 above. Note that under Unix-derived systems, the executable must be named “mendel”, and must be in the user's PATH (see the ReadMe file that came with Mendel). Under MS Windows, the executable should be named “Mendel.exe” and should be in the same directory as the Gregor executable.

While Mendel runs, its screen output shows up in the bottom part of the main Gregor window. Note that this is separate from the program output that is written to the files specified by specific Key Words. While Mendel runs, the “Run Mendel” button becomes “Stop Mendel”. Clicking the button during a run will terminate the current Mendel run.

#### **6. Edit Current Files**

This allows the user to easily view or edit any of the files in the Working Directory named by the Key Words. A window will appear listing all the file-specifying Key Words that have a non-blank value. Note that several of these Key Words have default values, so that even if not explicitly set, they will have a value. Next to these Key Words, after listing the associated value, Gregor supplies an “Open” button that attempts to display the file with that name in the Working Directory. If the file exists, it's displayed in a separate window. Available within that window are a few standard menu items: “Save”, “Save as ...” and “Close”.

#### **7. Edit Any File**

This allows one to view or edit any text file. A dialog box is displayed for choosing a file. That file is then displayed in a separate window. Available within that window are a few standard menu items: “Save”, “Save as ...” and “Close”.

#### **8. Quit**

Quits Gregor.