

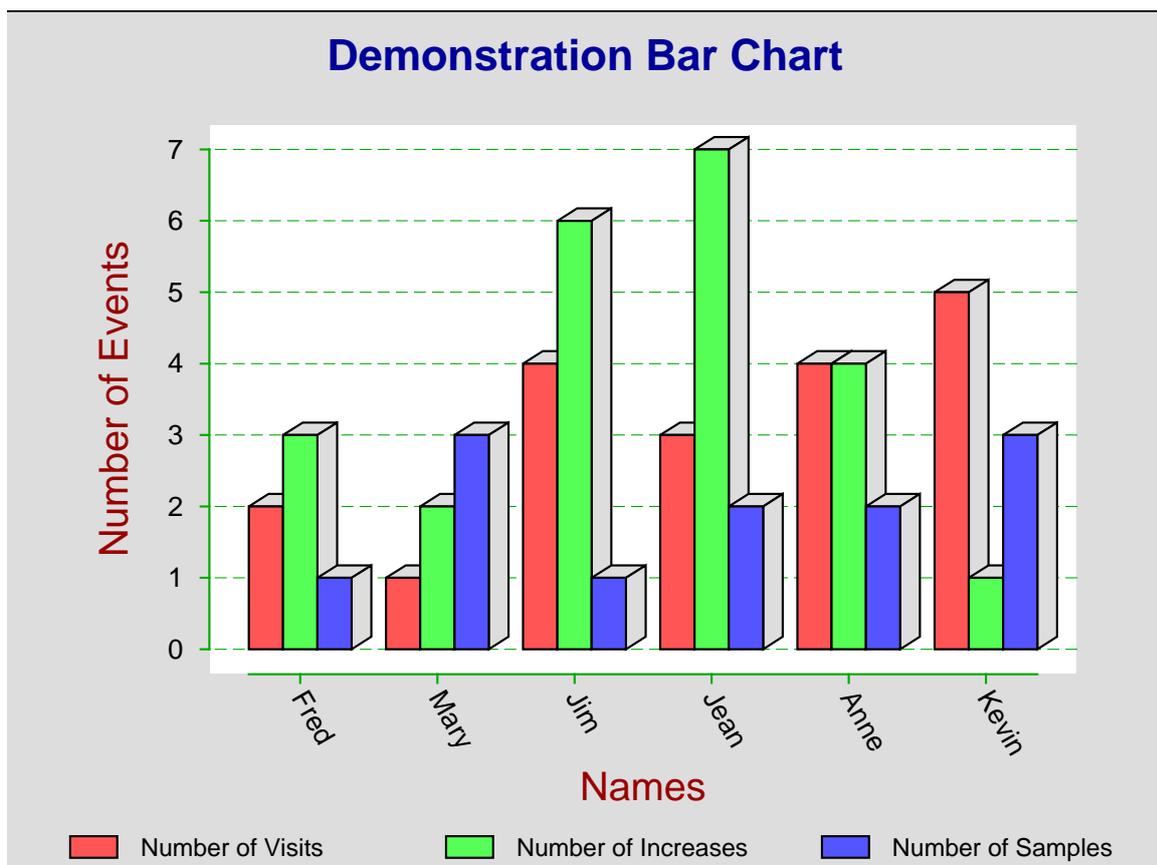
Techniques for speeding up the SIMFIT and SIMDEM packages

bill.bardsley@simfit.org.uk

https://simfit.uk

https://simfit.org.uk

https://simfit.silverfrost.com



1 Speeding up Simfit and Simdem

1.1 The default configuration

The default configuration of SIMFIT installs many procedures that are specifically designed to assist inexperienced users to get started, and it is anticipated that eventually the user may want to suppress some of these options in order to speed things up.

At any time the speedup options can be switched on or off in SIMFIT or SIMDEM using the sequence

[Configure] ⇒ [Advanced] ⇒ [Speedup]

but SIMFIT users will find it easier to use the dedicated **[Speedup]** option available from the main SIMFIT menu as will be discussed later.

1.2 Summary of some speedup options

Here are some typical situations where such options may be encountered.

- Checking the installation for missing or incorrectly specified files
- Giving an option to view data files before proceeding to open them for plotting or analysis
- Offering the possibility to type in data directly instead of by the usual file/clipboard methods
- Providing names of typical test files to indicate correct formatting
- Displaying messages to alert users to special features when programs are used for the first time.
- Showing warnings to double check that users really do want to exit from an advanced plot, and so lose any editing they may have done.

1.3 When to switch on or off the speedup options

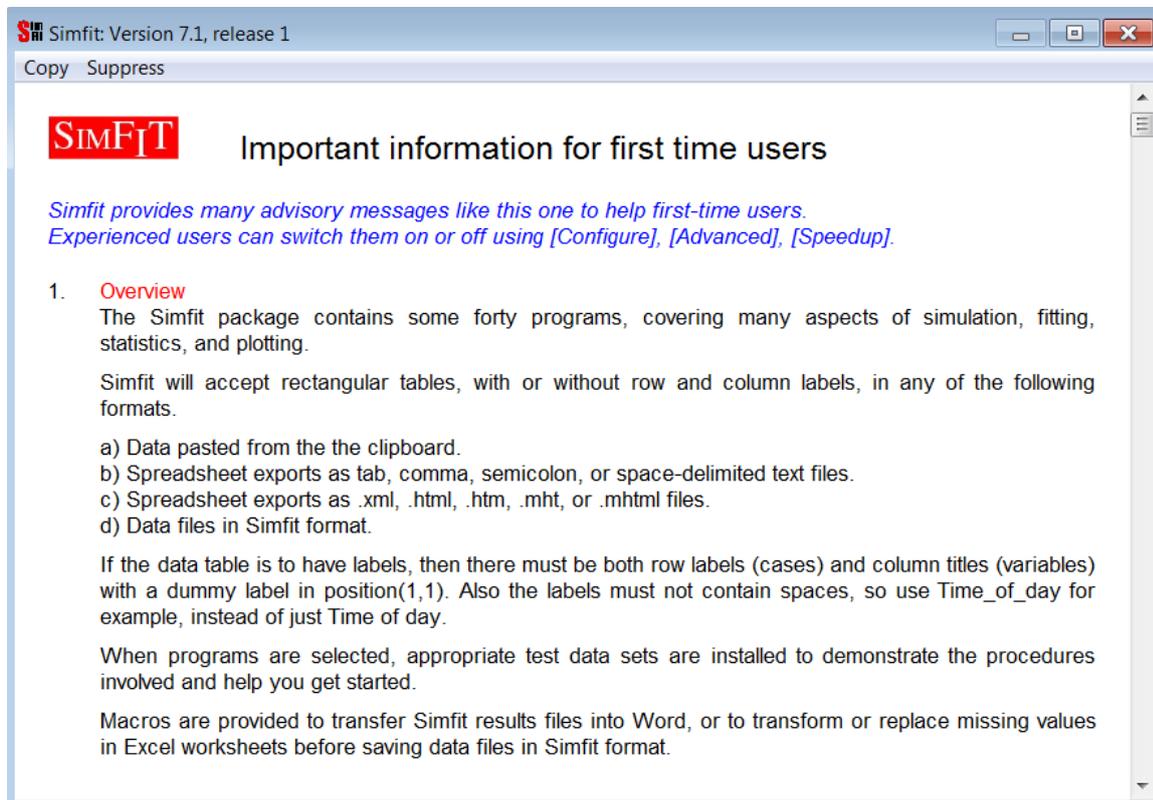
Once users have become familiar with using SIMFIT, some of these procedures may prove tedious, as they slow down the process of loading and running SIMFIT. So options are provided to switch such features on or off as required to speed up SIMFIT. However, if a user has become accustomed to one particular technique but then tries another analytical procedure for the first time, it could be advisable to switch some of the the speedup options back on for a while.

Note that all the options in question can be toggled on or off at any stage.

Some examples are now given to make the situation clearer.

2 The startup splash screen

For example, on starting SIMFIT the following page will be displayed.



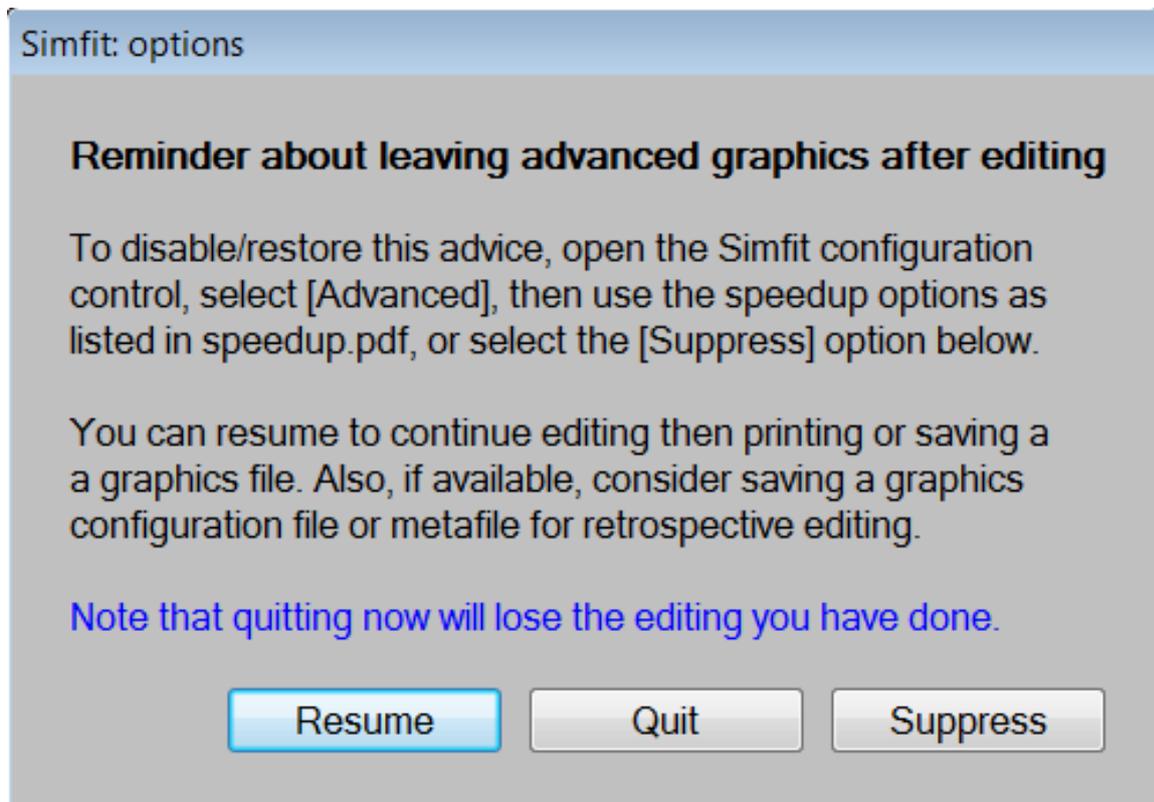
The page is intended to provide advice for first-time users as follows.

- It gives some important tips for SIMFIT users.
- Note that the heading makes it clear that a mechanism exists for switching this page on or off once the contents have been read.
- This is a feature of all the speedup options: they indicate the availability of techniques for switching the feature between an on or off state at any time.
- Note that some of the speedup choices are only implemented on start-up.

However, it is assumed that after reading this page it will be switched off and this is most easily achieved by activating the top menu suppress item.

3 The exit from advanced graphics

This advice is given on exit from Advanced Graphics if any editing has been done, and it can prove particularly frustrating to experienced users. It can be switched off by choosing the suppress option.

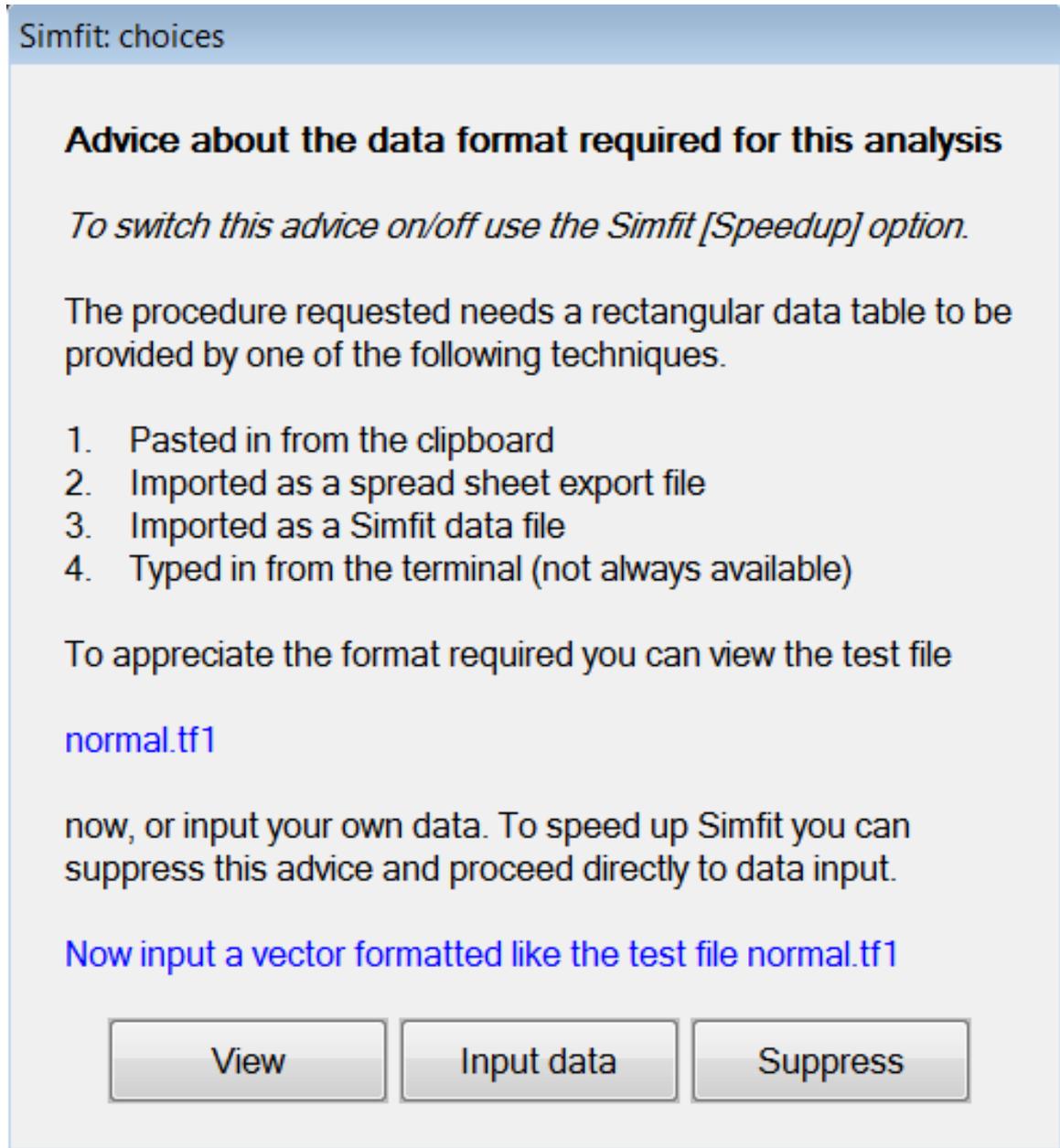


It is displayed to warn users that an exit from Advanced Graphics at that stage will lose any editing that has been done to the titles, legends, symbols, colors, etc. If it is wished to preserve an editing session there are one of three things that should be done by this stage to avoid losing any editing that has been performed.

1. The completed graph must have been saved as a graphics file, preferably a .eps file.
2. A configuration file has been archived to save the editing as a template to apply if the same, or a similar, data set is input at some future stage into the Advanced Graphics procedure
3. A SIMFIT metafile has been created. These metafiles contain a full record of all the data and editing details, and can be retrospectively read back into the SIMFIT program **simplot** in order to resume an Advanced Graphics editing session.

4 The data format option

When a data file is required for analysis by SIMFIT the following option is presented.



Simfit: choices

Advice about the data format required for this analysis

To switch this advice on/off use the Simfit [Speedup] option.

The procedure requested needs a rectangular data table to be provided by one of the following techniques.

1. Pasted in from the clipboard
2. Imported as a spread sheet export file
3. Imported as a Simfit data file
4. Typed in from the terminal (not always available)

To appreciate the format required you can view the test file [normal.tf1](#)

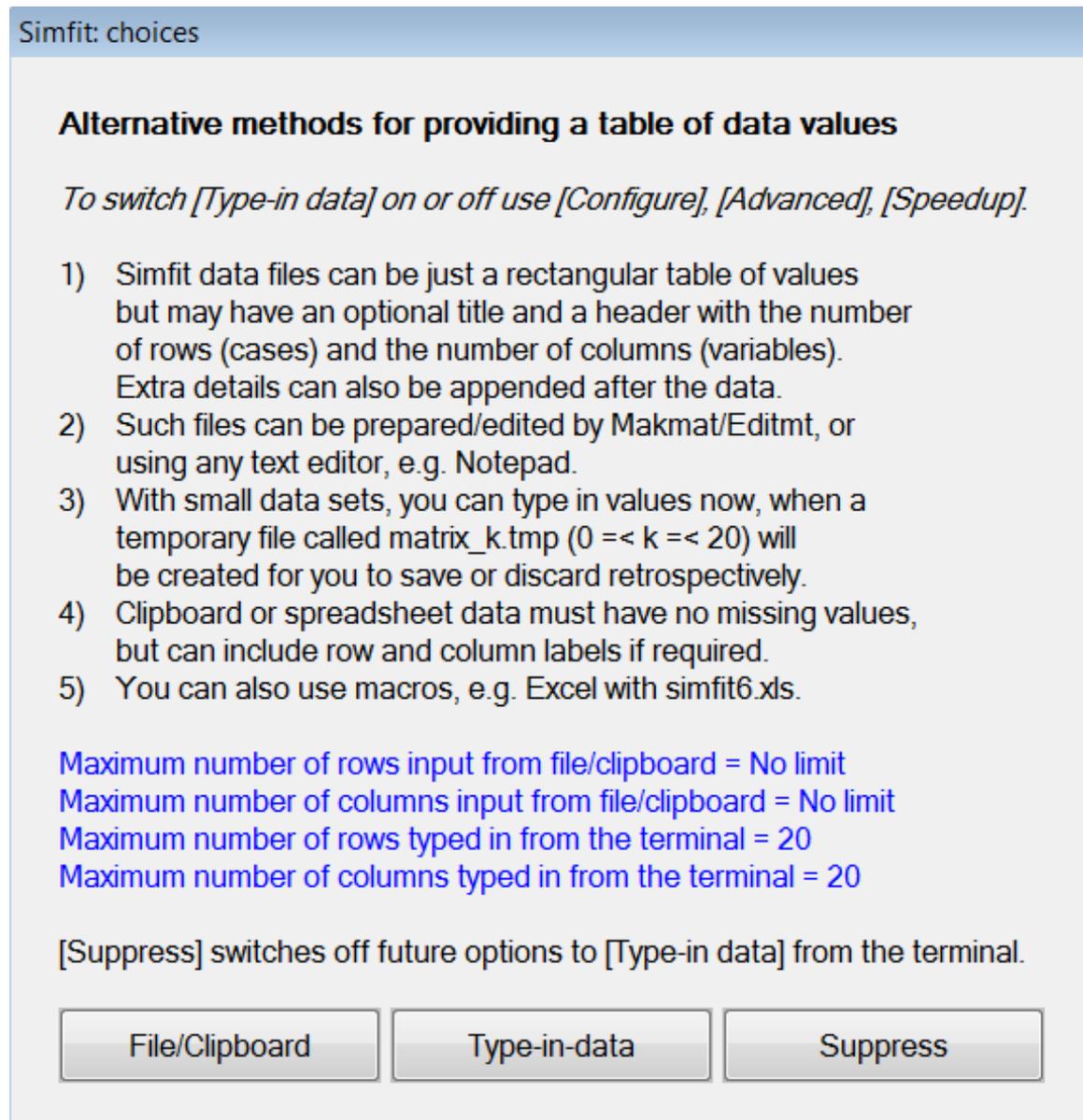
now, or input your own data. To speed up Simfit you can suppress this advice and proceed directly to data input.

[Now input a vector formatted like the test file normal.tf1](#)

This offers inexperienced users the chance to examine a test file in order to see the format required for the type of analysis requested.

5 The file-clipboard or type-in option

When a procedure requires data input the following option is sometimes presented.



Simfit: choices

Alternative methods for providing a table of data values

To switch [Type-in data] on or off use [Configure], [Advanced], [Speedup].

- 1) Simfit data files can be just a rectangular table of values but may have an optional title and a header with the number of rows (cases) and the number of columns (variables). Extra details can also be appended after the data.
- 2) Such files can be prepared/edited by Makmat/Editmt, or using any text editor, e.g. Notepad.
- 3) With small data sets, you can type in values now, when a temporary file called matrix_k.tmp ($0 \leq k \leq 20$) will be created for you to save or discard retrospectively.
- 4) Clipboard or spreadsheet data must have no missing values, but can include row and column labels if required.
- 5) You can also use macros, e.g. Excel with simfit6.xls.

Maximum number of rows input from file/clipboard = No limit
Maximum number of columns input from file/clipboard = No limit
Maximum number of rows typed in from the terminal = 20
Maximum number of columns typed in from the terminal = 20

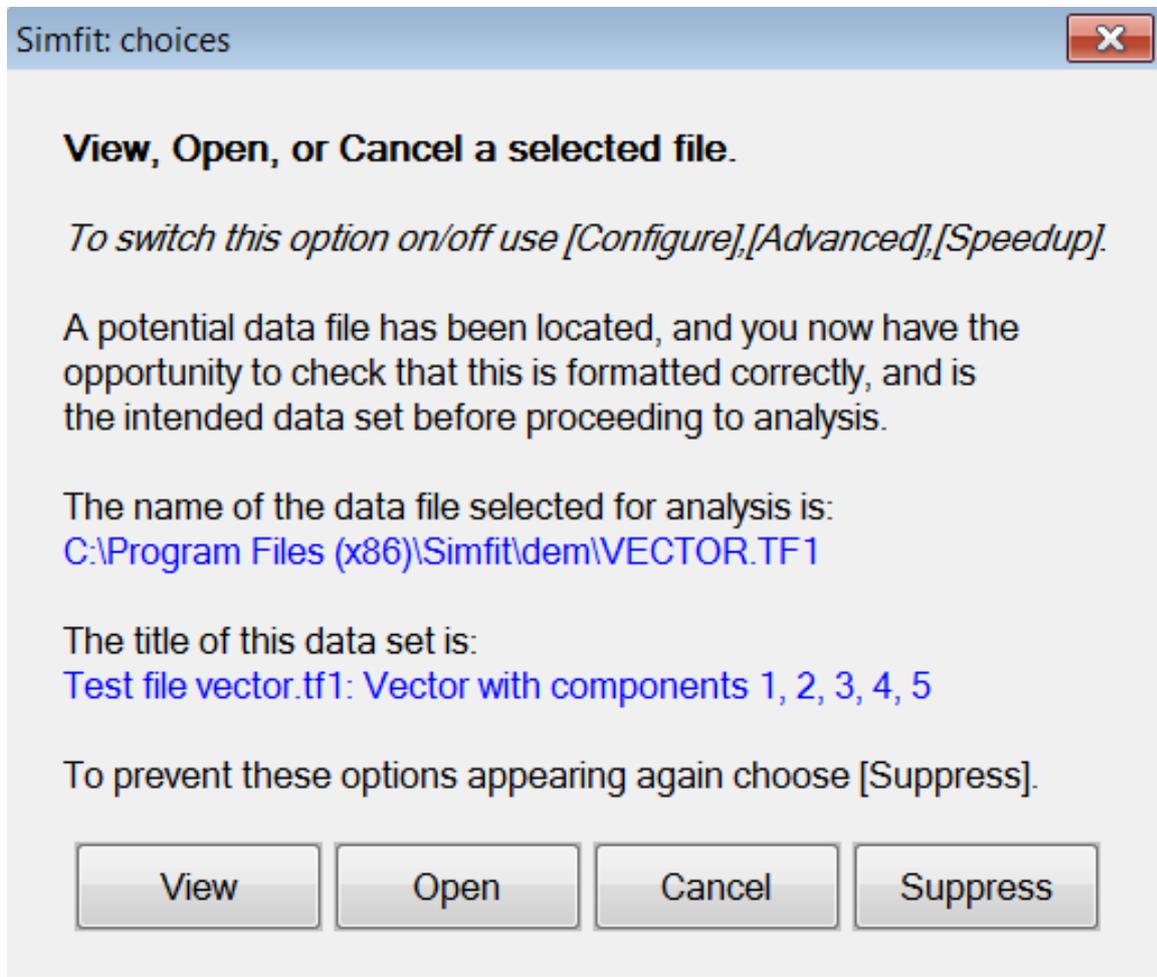
[Suppress] switches off future options to [Type-in data] from the terminal.

File/Clipboard Type-in-data Suppress

This offers users the choice to read in data from a file or the clipboard, but also allows users the opportunity to type in data from the terminal. If this choice is selected a temporary file is created which can subsequently be saved. The main value for this option is when a user wants to use a technique repeatedly but the technique only requires a small amount of data. For instance, an example would be repeating a series of Fisher exact tests on 2 by 2 contingency tables by typing in successive values at the terminal instead of reading in a sequence of small data files.

6 The view-open-cancel option

When a data file has been selected the following option is presented.



This offers inexperienced users the chance to accept or refuse the file that has been selected but, more importantly, they can browse the file to examine the contents before proceeding.

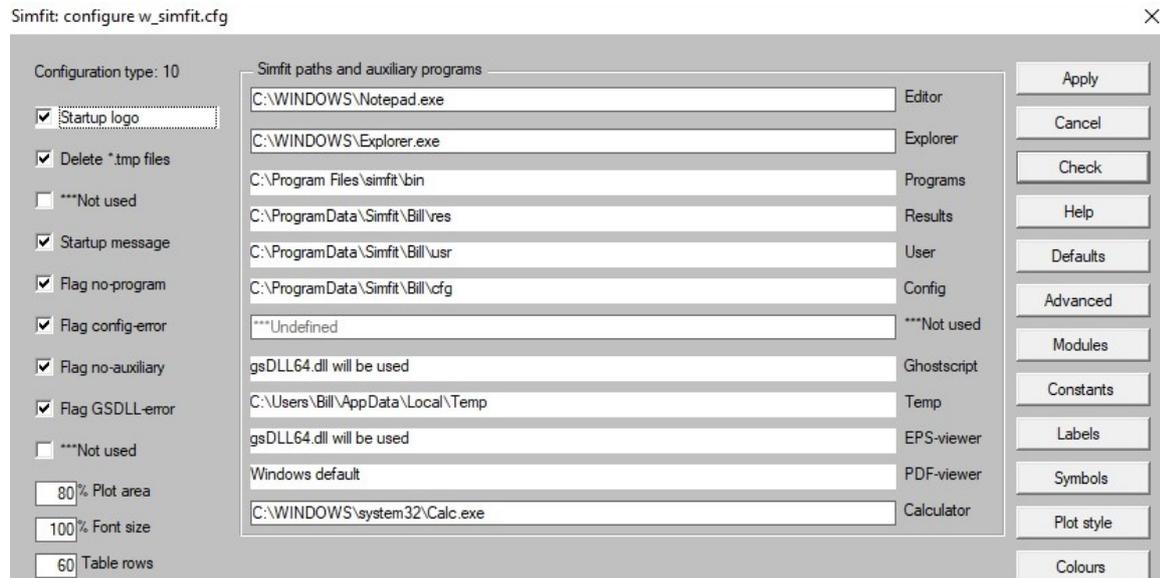
7 Editing speedup options from the configuration control

This requires the following steps.

- First open the SIMFIT configuration control
- Next choose the Advanced Options
- Then select the Speedup Options

7.1 The configuration control

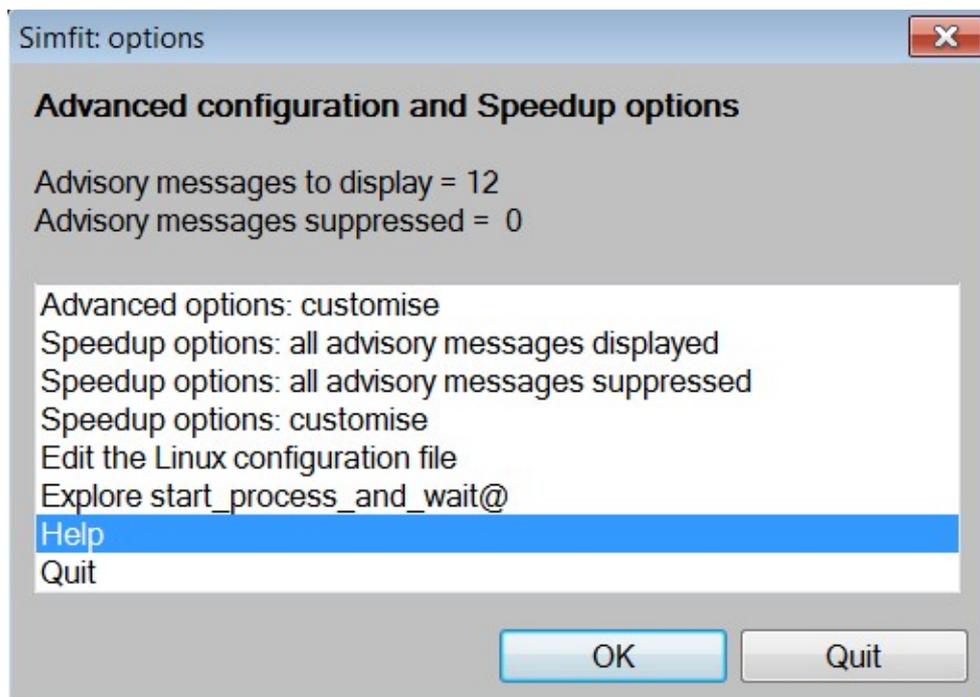
The main SIMFIT configuration control will appear as follows.



Note that, after performing any alterations to the current SIMFIT configuration, it is necessary to press the [Apply] button to make sure the changes are applied.

7.2 The advanced menu

On pressing the [Advanced] button this menu will appear



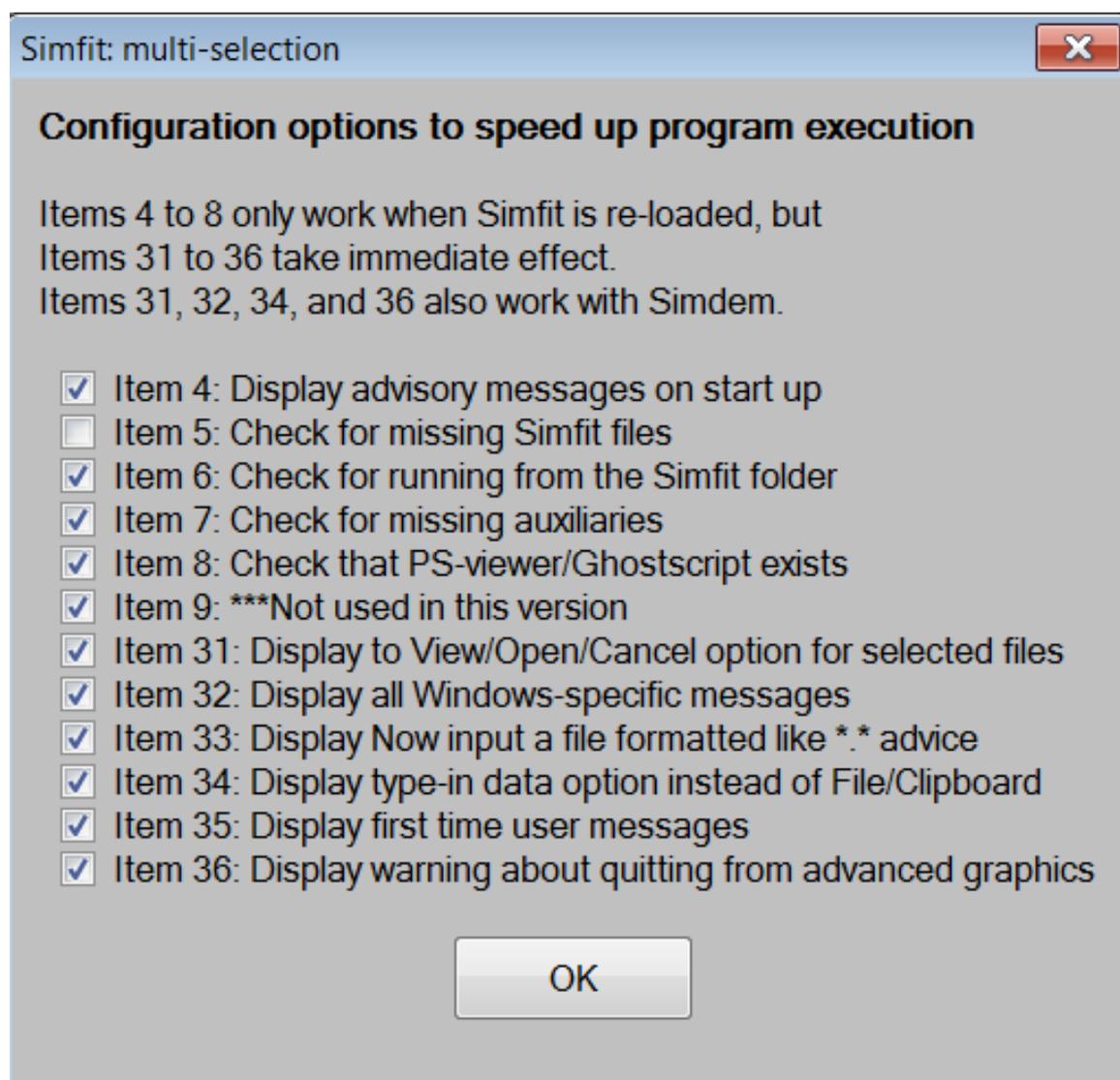
From this it is possible to choose one of the following options.

- Display all advisory messages
- Suppress all advisory messages
- Customize

First time users should switch on all messages until their meaning has been understood, when the option to suppress would be chosen. Subsequently, when a new procedure is attempted, the option to customize could be used to get information such as the formatting of data files, or to inspect a file before proceeding to analysis.

7.3 The speedup tick boxes

From the following control, the required speedup items are installed or suppressed.



8 Editing speedup options from the Simfit main menu

This by far the easiest way to edit the speedup options, but it is only available to SIMFIT users and not SIMDEM users.

After selecting the [Speedup] option from the head of the SIMFIT main menu then choosing to edit the speedup options the following situation results.



From the popup menu users have five possible options.

1. Display all speedup messages
2. Suppress all speedup messages
3. Customize
4. Help
5. Cancel

The idea is that inexperienced users should choose option 1, and then as the messages are understood option 3 would be used to suppress messages one at a time. Experienced users would choose option 2 and then re-introduce individual messages when a reminder is required.

9 Summary

Experienced users who want to speed up data analysis should understand what items 4, 5, 6, 7, 8, 9, 31, 32, 33, 34, 35, and 36, do and maybe switch them off. Note that, while all the options apply to the SIMF_IT package, not all are relevant for the SIMDEM package.

9.1 SIMF_IT only

Options 4, 5, 6, 7, and 8 are only for the SIMF_IT package and can be altered from the left hand check boxes on the main SIMF_IT configuration control, and are only effective after re-loading SIMF_IT. Nevertheless, after editing these options, the [Apply] button must be pressed to save the changes made.

Once SIMF_IT has been installed and configured properly it is recommended that you switch off these options, which will only be having the effect of slowing down the loading of SIMF_IT.

Item 4: 0 ... silent start up

1 ... display advisory messages on start up

Set 1 for group use so that everybody gets a chance to appreciate the SIMF_IT philosophy, but individual users will read the messages once then set 0 to switch off.

To speed up SIMF_IT, advanced users should set this to 0.

Item 5: 0 ... no check for missing SIMF_IT files

1 ... display program file missing error messages

The only reason to set 0 is to speed up initialisation, or where users know why certain files are missing.

To speed up SIMF_IT, advanced users should set this to 0.

Item 6: 0 ... no check for running from the SIMF_IT folder

1 ... flag unsatisfactory SIMF_IT configuration

This should be set to 1 as unpredictable results may occur when running from outside the SIMF_IT folder. Expert users with several dedicated versions containing special editions of some SIMF_IT programs may wish to have one remote driver to switch between installations, and could try setting 0.

To speed up SIMF_IT, advanced users should set this to 0.

Item 7: 0 ... no check for missing auxiliaries

1 ... check that user-specified programs exist

Set 1 unless some files have been deleted or not specified because they are never going to be used.

To speed up SIMF_IT, advanced users should set this to 0.

Item 8: 0 ... no check that PS-viewer/Ghostscript exists
1 ... check that PS-viewer/Ghostscript exists
Misguided users who do not appreciate the power of Simfit PostScript facilities and are content to just use Windows graphs (which, by the way, should always be png or enhanced metafiles, emf) may set 0 to switch off PostScript checking. It is a serious mistake not to install Ghostscript and a front end like GSview, as these provide many additional and powerful graphical procedures to SIMFIT users, even if PostScript printing is not available. Note that, with the GSview and Ghostscript packages installed, PostScript files can be printed on any printer. To speed up SIMFIT, advanced users should set this to 0. Linux/Wine users should switch off because ghostscript is a standard Linux program, and GSview is not required.

Item 9: 0 ... no check that the PS-printer driver exists
1 ... check that the PS-printer driver exists
As for Item 8.

9.2 SIMFIT and SIMDEM

Options 31 to 36 are for the SIMFIT and SIMDEM packages and can be adjusted after selecting the Advanced sub-item from the main SIMFIT configuration control.

They can also be set using the speedup option after using the [Configure] button on the main SIMFIT task bar, followed by pressing the [Advanced] button on the main configuration control. After editing these options, the [Apply] button must be pressed to save the changes made.

Switching off these options will dramatically speed up the running of SIMFIT by eliminating the need for many routine mouse clicks and menu selections. Changing the options has an immediate effect.

However, it should be noted that these options apply globally. For this reason they should be switched on when using a new procedure, or one that you have not used recently, so that you obtain maximum help in understanding the actions and file formats required before disabling the dedicated help.

Item 31: 0/1, provide the option to View/Open/Cancel each time a data file is selected. Advanced users may wish to set this to 0 to speed up data analysis. This option can be very useful if you try to input a data file that Simfit says it will not accept because it is

formatted incorrectly, because you can readily check the formatting details.

Item 32: 0/1, display all Windows-specific messages.

Advanced users should set this to 0.

Note that several warning messages are only meaningful to the Windows Operating System and have no value under Linux/Wine, where users should always set this to 0, i.e. switch off

Item 33: 0/1, display ... Now input a file formatted like *.* advice each time a procedure is selected. Advanced users may wish to set this to 0 to speed up data analysis.

This option merely gives you the name of a suitable test file, and will simply be a nuisance once you know the format required.

Item 34: 0/1, provide the option to type in data values directly as an alternative to using File/Clipboard. Advanced users may wish to set this to 0 to speed up data analysis.

This option can often be very useful when several small data sets are required, and it would be tedious to create numerous small data sets, or repeatedly transfer values from a spreadsheet using the clipboard. For instance, when analysing a set of 2 by 2 contingency tables by a chi-squared test, or when plotting simple bar or pie charts.

Item 35: 0/1, display ... First time user messages, e.g. alternative file formats when using program Simplot. Advanced users may wish to set this to 0 to speed up data analysis.

When a procedure is familiar this procedure is just irritating, but it should be switched on when using an unfamiliar procedure.

Item 36: 0/1, provide the option to cancel quitting from advanced graphics displays in order to continue with further editing, saving configuration or graphics files, etc. Advanced users may wish to set this to 0 to speed up data analysis.

This procedure is provided so that inexperienced users will be aware that, if they exit from an advanced plot after editing the titles, legends, symbols, etc., without saving a graphics file, or printing the graph, then all the editing will be lost on quitting the plot.