

Running SIMFIT and SIMDEM in Linux

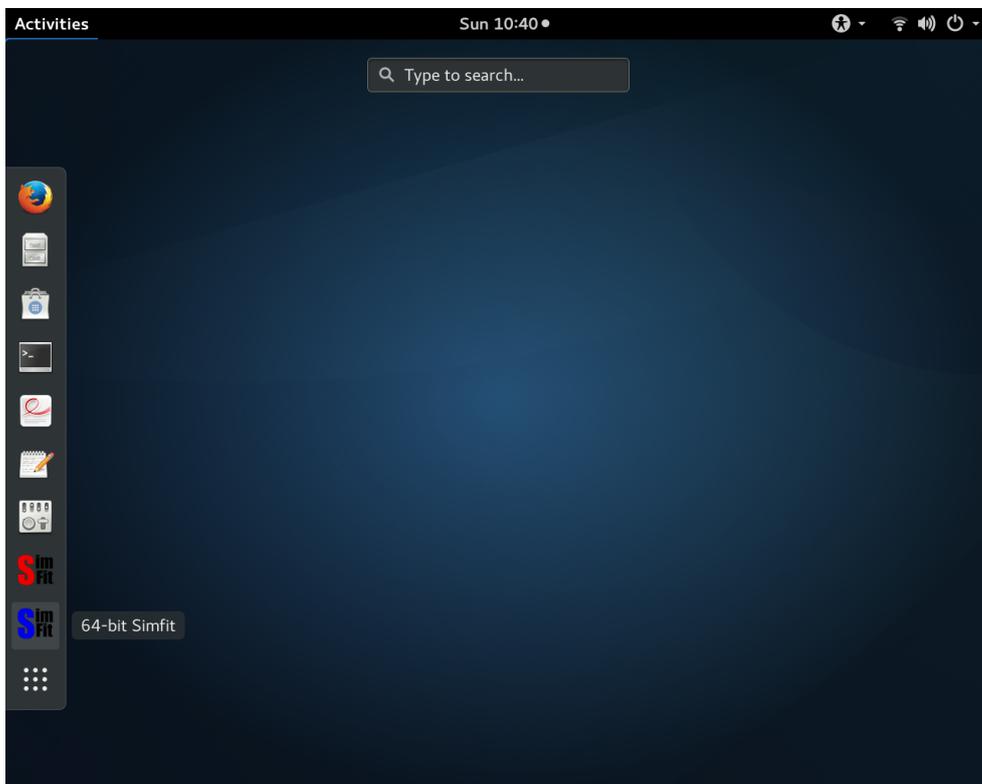
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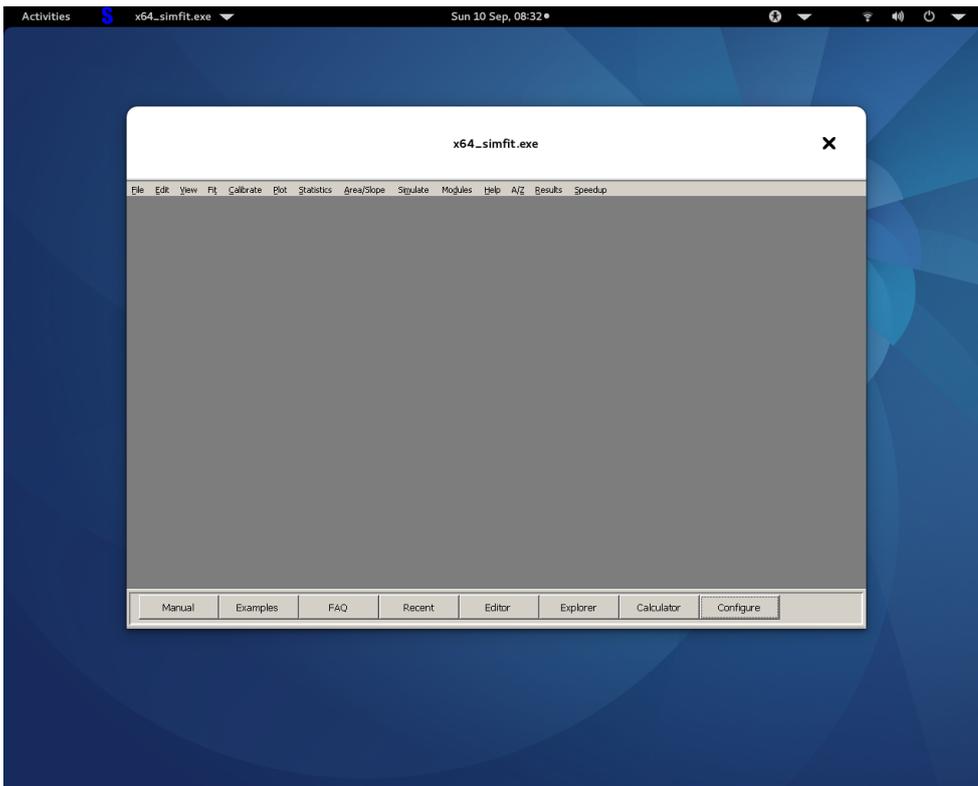
1 Running Simfit in Fedora Linux

Since Wine became available in Linux, the SIMFIT and SIMDEM packages have been able to run perfectly in this environment except for a few minor options, and I am grateful for the help given to me by Mikael Widersten and David Bailey as the SIMFIT Linux project has progressed.

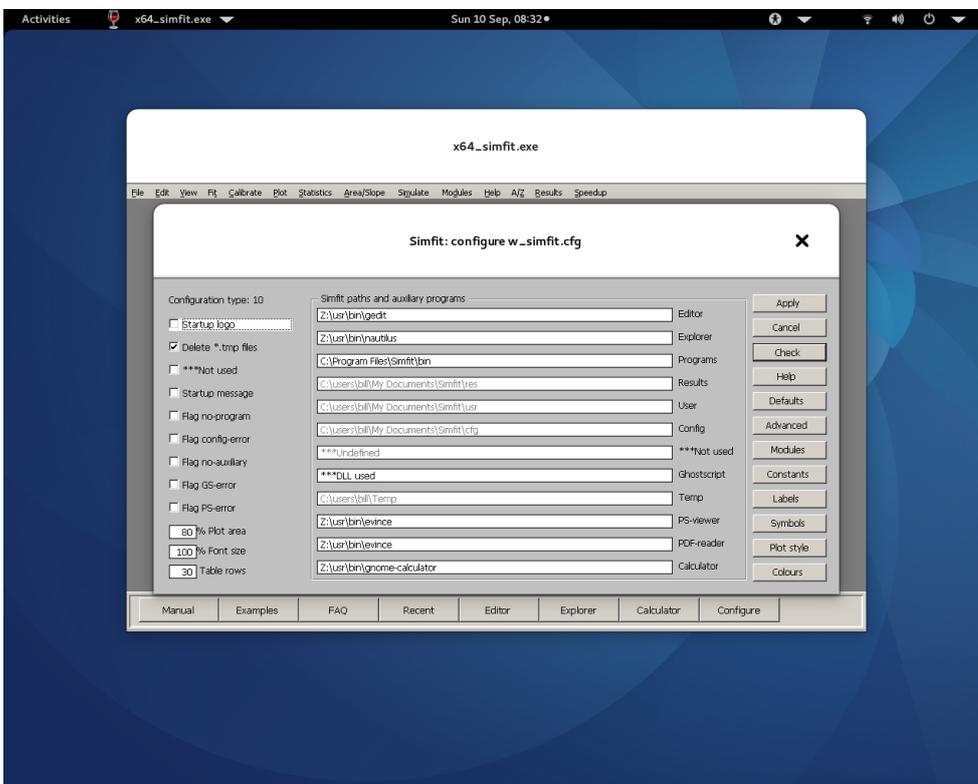
For instance, SIMFIT installs from the box in Fedora and automatically creates a working configuration, leading to the desktop displayed below when both the 32-bit and 64-bit versions of SIMFIT have been installed.



Selecting to run 32-bit or 64-bit SIMFIT then displays the main SIMFIT menu as follows



while choosing the configuration option presents the configuration control shown next.



This configuration was created automatically by the installation program and it has located the paths used by the SIMFIT package and the native binaries listed next.

```
Z:\usr\bin\gedit
Z:\usr\bin\nautilus
Z:\usr\bin\evince
Z:\usr\bin\gnome-calculator
```

Here **gedit** is the gnome editor, **nautilus** is the disk explorer, **evince** is the file and document viewer, while **gnome-calculator** is the default calculator in Fedora.

2 Running Simfit in all versions of Linux

In order to maintain the functioning of SIMFIT and SIMDEM in Wine-Linux, several changes to the configuration items described in configure.txt or configure.pdf have been made at Version 7.3.4 as now explained.

1. Item 1 : Show logo on start up

This has been disabled as it is inconsistent with window hierarchies in some versions of Wine, despite using **winecfg** to allow Wine to perform window management.

2. Item 20: Ghostscript

SIMFIT and SIMDEM now are installed with **Ghostscript** as a DLL, so an independent version is no longer required. To force use of an independent Ghostscript installation delete or rename verb+gsdll32.dll+ (or gsdll64.dll).

3. Item 30: Paint a background

This has been disabled for the same reason as Item 1. If there are still background display problems check if **simfitbar.exe** (or **x64_simfitbar.exe**) are present and, if so, delete.

4. Item 48: Gdiplus and anti-aliasing

Wine does not now call gdiplus.dll for anti-aliasing with SIMFIT and SIMDEM as this has been disabled. In addition, dashed, dotted, and dashed-dotted line types did not work properly, so a SIMFIT routine is now used for this purpose.

3 Using native Linux binaries

Note that, with some Linux versions, a certain amount of reconfiguring and editing of permissions may be required in order to allow SIMFIT and SIMDEM to use native Linux binaries and shared libraries. To avoid this it is suggested that, if problems persist when using the native binaries, you should use the built-in Wine defaults such as:

```
Text editor      Use C:\Windows\System32\notepad.exe
Disk explorer    Use C:\Windows\System32\explorer.exe
Calculator        Use C:\Windows\System32\calc.exe
pdf reader       Use C:\Program Files\SumatraPDF\SumatraPDF.exe
```

Of course you may need to install **Calc.exe** and **sumatraPDF.exe**, but with this combination every SIMFIT procedure will work correctly.

4 Configuration

The SIMFIT package will run very well in Linux under Wine, but the configuration is somewhat more complicated than in Windows. Note that the two configuration files

`l_simfit.cfg` and `w_simfit.cfg`

will be in the `... \My Documents \Simfit \cfg` folder. These can be viewed or edited using the configuration option from the main SIMFIT menu.

When installing SIMFIT for the first time, SIMFIT will try to create sensible Linux defaults. If you already have a satisfactory configuration, then re-installing SIMFIT will not overwrite any such configuration files. The following subjects are now explained.

- 1) Installing Wine
- 2) Installing Simfit
- 3) Running Simfit
- 4) Configuring Simfit
- 5) About l_simfit.cfg
- 6) Linux auxiliaries
- 7) Trouble shooting

4.1 Installing Wine

You must have a recent version of Wine installed and fully functional noting these two very important points.

- a) You must have a set of Windows True Type Fonts or equivalents installed in the Wine Windows Fonts folder, and SIMFIT will warn you about any missing fonts. Recent versions of Wine should have the fonts but, if not, then these fonts can easily be copied over from your Windows installation, then added to the Wine supplied fonts. Use an external drive or disk, and the DOS command line if you cannot do it from the Windows File System Explorer.
- b) You must use the **winecfg** option to let the Wine windows be managed by the operating system windows manager. If you do not do this, then the the Linux task bars will be permanently obscured, and when you call the Linux auxiliaries they will not be visible, as the SIMFIT controls will remain topmost in the Windows hierarchy.

4.2 Installing Simfit

It will be presumed that you have Wine installed as in, e.g.

```
/home/wine_installation_name/.wine/drive_c
```

Get the simfit setup.exe file from

```
https://simfit.org.uk
```

then copy it into the drive_c and use wine to execute it, as in the command, e.g.

```
wine simfit_setup7_3_4.exe, or  
wine x64_simfit_setup7_3_4.exe
```

This will then install the SIMFIT package in

```
/home/.../.wine/drive_c/Program Files/Simfit/bin
```

with no configuration. On running the SIMFIT driver **w_simfit.exe** (or **x64_simfit.exe**) for the first time you will get the option to install a default Linux configuration. If you install a Windows configuration by mistake, or your configuration becomes unusable, delete the configuration files `l_simfit.cfg` and `w_simfit.cfg`, so that SIMFIT can replace the default Windows configuration by the default Linux configuration.

Note that, in recent versions of Wine the single drive called drive_c also has a copy in the `\dosdevices\c:\` folder and this is where the command **winepath** will specify paths if you try to use Linux executables.

There are no registry entries needed to run SIMFIT. However, note that the installation program registry entries that are created are not required to run SIMFIT only to de-install the package.

4.3 Running Simfit

The SIMFIT package is run by the single program **w_simfit.exe** (or **x64_simfit.exe** with 64-bit SIMFIT) in one of several ways.

- (a) You can make a link to this program, or else define a shell command to provide the equivalent of

```
wine w_simfit.exe, or wine x64_simfit.exe
```

from within the SIMFIT directory.

- (b) You can run SIMFIT from the Wine sub-menu, if SIMFIT has been added to the list of Wine programs.
- (c) You can add desk-top icon to run SIMFIT from the applications bar or elsewhere.

The first time you run SIMFIT you will have created the files

```
l_simfit.cfg and w_simfit.cfg
```

in the ... \My Documents \Simfit \cfg folder in order to allow SIMFIT to create defaults. At this stage you should be aware of the information in the next two sections.

4.4 Configuring Simfit

Be careful as this is much more complicated in Linux than in Windows.

You must appreciate several things before attempting to configure SIMFIT.

a) Within the Wine environment, drive_c behaves just like C: in a Windows installation. So the reference manual in the Wine environment would be

```
C:\Program Files\Simfit\doc\w_manual.pdf
```

which is case-insensitive

b) To Linux outside the Wine environment however, it would be

```
"/home/.../.wine/dosdrives/c:/Program Files/Simfit/doc/w_manual.pdf"
```

where the fully qualified path-filename is case-sensitive and the quotes are required because of the space in Program Files. You are strongly recommended to set up folders within the Wine environment without spaces in the names, and to avoid all use of spaces in file names for files you create from SIMFIT.

c) When asked to create l_simfit.cfg you must respond by attempting to create a Linux default, otherwise a Windows default will be created and this will disable the Linux specific aspects of SIMFIT.

The Windows default is set up to expect Windows auxiliaries such as Notepad, Adobe Acrobat reader, GSview, etc., but these are not required for the Linux installation, as Linux comes ready supplied with many excellent auxiliaries. That is, if you can get them to work. You may need to use **ldconfig** to make the shared library programs available to SIMFIT.

The Linux default attempts to configure SIMFIT to use the Linux built-in programs instead of the Windows programs, but you can re-configure to use Windows programs using [Configure] then [Advanced] from the main SIMFIT menu.

If the SIMFIT configuration menu shows all Windows auxiliaries then edit l_simfit.cfg using [Configure] then [Advanced], or delete l_simfit.cfg and w_simfit.cfg from your installation and start again.

d) In Linux, SIMFIT creates and reads files anywhere except within the `... \Simit\bin` folder. This has several important consequences.

i) The files such as `w_simfit.cfg` and `l_simfit.cfg` that are used to configure SIMFIT will be in the `... \My Documents\Simfit\cfg` folder not in the SIMFIT folder.

ii) Temporary files such as `f$123456.tmp` that are created by SIMFIT will be in the temporary folder. If you choose to delete temporary files (which is the usual choice) you will never be aware of such files.

iii) You will have to configure `w_simfit.cfg` using the [Configure] button on the main page, but then also the `l_simfit.cfg` file using the [Advanced] button.

e) After using the [Configure] button to edit the configuration you must use [Check] to check the changes, then [Apply] to overwrite the configuration files. To force an attempt to find a default you delete the existing file name then use [Check] then apply. Otherwise the full path can be copied and pasted into the blank field followed by [Check] then [Apply].

4.5 About `l_simfit.cfg`

You must edit the file `l_simfit.cfg` that has been created by SIMFIT to contain the exact Linux path to your home directory, and to the SIMFIT directory, so that SIMFIT can pass files to the Linux auxiliaries. Typical entries would be as follows.

```
3 %linux%
Z:\
H:\
/home/YOUR_name/
/home/WINE_name/.wine/dosdrives/c:/
/home/WINE_name/.wine/dosdrives/c:/Program Files/Simfit/bin/
Z:\usr\bin\
Z:\usr\local\bin\
Z:\opt\kde3\bin\
Z:\opt\gnome\bin\
kwrite
konqueror
kprinter
klipper
kghostview
kpdf
kcalc
```

Details for the above configuration parameters are now listed.

The first lines of `l_simfit.cfg` must be as follows:

```
1: version (use 0 %windows% to disable for Windows users)
2: case-insensitive Wine drive for the root, e.g. Z:\
3: case-insensitive Wine drive for your Home, e.g. H:\
4: CASE-SENSITIVE full Linux path to your Home directory
5: CASE-SENSITIVE full Linux path to Wine C drive, i.e C:
6: CASE-SENSITIVE full Linux path to the Simfit binary directory
7: case-insensitive Wine system binary search path 1 (obsolete)
8: case-insensitive Wine system binary search path 2 (obsolete)
9: case-insensitive Wine system binary search path 3 (obsolete)
10: case-insensitive Wine system binary search path 4 (obsolete)
11: favourite editor, e.g. kwrite, kedit, gedit
12: favourite explorer, e.g. konqueror, nautilus
13: favourite PS-driver, e.g. kprinter
14: favourite clipboard viewer, e.g. klipper
15: favourite PS-viewer, e.g. kghostview, ggv, evince
16: favourite PDF-reader, e.g. kpdf, evince
17: favourite calculator, e.g. kcalc, gnome-calculator
```

Lines 1 to 17 must be exactly as above, and lines 4 to 6 are case-sensitive. Note that using a tilde (~) or \$HOME for your home directory may not work.

If `SIMFIT` fails to drive the Linux auxiliaries, it may be because `w_simfit.cfg` and `l_simfit.cfg` are not formatted correctly. In that case delete these configuration files and let `SIMFIT` create default versions. Alternatively, upgrade Wine and Linux and attempt a re-configuration which should then allow the binaries or shared library items to be linked in at run-time.

4.6 Linux auxiliaries

Linux has many excellent programs to edit text files, read, ps and pdf files, and to transform ps files into pdf or png files. For instance, in Fedora, you can use

- a) `Z:\usr\bin\evince` for reading eps, ps and pdf files,
- b) `Z:\usr\bin\gedit` to edit text files, and
- c) `Z:\usr\bin\gnome-calculator` as a calculator.

You should experiment and find the best binaries on your Linux installation to act as an editor, PS-viewer and PDF-reader, etc. Note that you must use [Configure], then [Check] and [Apply] to alter the auxiliaries, but note that the [Check] option will not work if `l_simfit.cfg` is formatted incorrectly.

4.7 Trouble shooting

a) Problem 1:

SiMFIT programs appear as full screen programs blotting out the Task bar and obscuring the Windows created by Linux auxiliaries.

Use **winecfg** to install the mode where Wine employs the window manager to manage windows. This should be the Wine default anyway.

b) Problem 2:

A Linux auxiliary will not display, transform, or print a SiMFIT graphics file or document.

Some paths defined in `w_simfit.cfg` and `l_simfit.cfg` may be incorrect. Windows users new to Linux should note that paths and filenames are case sensitive, and spaces in file names should be avoided. Within Wine always use `\" as you would in Windows, SiMFIT will transform the file names into Linux format. Note that, you should normally switch on the options to add quotes to filenames passed by SiMFIT as arguments, especially if the filenames have spaces.`

c) Problem 3:

Linux users have a great deal of control on how windows attain or relinquish focus (the procedure that determines which program will receive keyboard keystrokes and other information) with models such as click-to-focus and focus-follows-mouse etc. as well as settings to prevent focus loss. The latter is useful, for instance, if you find a window launched from another process grabs text that you were typing into another window - potentially hazardous if you're typing your password at the time. If you find that SiMFIT dialogs do not attain focus and appear hidden behind the current window, you will need to experiment with these setting. In particular, it has been reported that on some KDE systems, setting the "Focus Stealing Prevention Level" in System Settings->Look and Feel->Windows Behaviour->Advanced to anything other than "None" will prevent SiMFIT dialogs from appearing properly.

d) Problem 4:

At one time SiMFIT could easily use the native Linux programs but, due to the growth of new distributions together with security issues, this has become increasingly problematical. Because of this a version of SiMFIT is being developed that will not need any auxiliary programs. For instance, SiMFIT no longer needs a Ghostscript or Gsview installation.

Note that SiMFIT versions 7 onwards have been compiled in Windows 10 and you should configure Wine to use the Windows 10 mode, although SiMFIT will work perfectly in Windows 7 mode.