

Programs and Tools: Installations, Tips and Tricks

Andrés Sicard-Ramírez

April 3, 2025

Some instructions for installing and using some programs and tools.

Contents

1	Beamer	1
2	Debian/GNU Linux on Windows via WSL	2
3	Emacs	3
4	ghcup	3
5	Lamba Shell	4
6	L^AT_EX	4

1 Beamer

Removing the headline and footline from the title page

Tested with Beamer 3.4.1.

Use the `plain` option for removing the headline and footline areas from the title page:

```
\begin{frame}[plain]
\titlepage
\end{frame}
```

Removing the navigation symbols

Tested with Beamer 3.4.1.

Write in the preamble the command

```
\setbeamertemplate{navigation_symbols}{}
```

for suppressing all the navigation symbols.

2 Debian/GNU Linux on Windows via WSL

For installing Debian on Windows we shall use the WSL (Windows Subsystem for Linux).

(i) Running PowerShell

For installing WSL open PowerShell in administrator mode by right-clicking and selecting *Run as administrator*:

```
Windows PowerShell  
C:\WINDOWS\system32>
```

(ii) Installing WSL

For installing WSL use the command

```
C:\WINDOWS\system32> wsl --install  
Downloading: Windows Subsystem for Linux 2.4.13  
Installing: Windows Subsystem for Linux 2.4.13  
...  
The operation completed successfully.
```

(iii) Available Linux distributions

To see a list of available Linux distributions available for installing with WSL use the command

```
C:\WINDOWS\system32> wsl --list --online
```

(iv) Installing Debian

For installing Debian run the commands

```
C:\WINDOWS\system32> wsl --install -d Debian  
C:\WINDOWS\system32> wsl -d Debian  
Enter new UNIX name:  
New password:  
Retype new password:
```

(v) Updating Debian

After installing Debian you should update it by running the commands:

```
$ sudo apt update
$ sudo apt upgrade
```

3 Emacs

Fixing trailing whitespace issues

Tested with Emacs 24.4.

Add to the `.emacs` file the instruction `(setq-default show-trailing-whitespace t)` for showing whitespace and run the command `M-x delete-trailing-whitespace` for removing them.

4 ghcup

For installing the ghcup tool we assume you are using Debian or WSL/Debian (see Section 2).

- (i) Before installing ghcup you need to install the required [Debian packages](#) for your version of Debian:

```
$ cat /etc/debian_version
12.10
```

```
$ sudo apt install build-essential curl libffi-dev libffi8 \
libgmp-dev libgmp10 libncurses-dev libncurses5 libtinfo5
```

- (ii) Now, [run the command](#) for installing ghcup and chose the default options:

```
$ curl --proto '=https' --tlsv1.2 -sSf https://get-ghcup.haskell.org | sh
```

- (iii) Restart your terminal for the changes to take effect.

- (iv) Testing your installation by running the command

```
$ ghcup --version
The GHCup Haskell installer, version 0.1.50.1
```

5 Lamba Shell

The Lambda Shell “is a feature-rich shell environment and command-line tool for evaluating terms of the pure, untyped lambda calculus” writing in Haskell.

The next instructions for installing the Lamba Shell program assume you are using Debian or WSL/Debian (see Section 2) and you installed GHC via the `ghcup` tool (see Section 4).

Instructions for installing the Lamba Shell program:

- (i) Installing GHC 9.12.2, if necessary

```
$ ghcup install ghc 9.12.2
```

- (ii) Switching to GHC 9.12.2

```
$ ghcup set ghc 9.12.2
```

- (iii) Installing git, if necessary

```
$ sudo apt install git
```

- (iv) Cloning the GitHub repository

```
$ git clone https://github.com/asr/lambda-shell.git  
$ cd lambda-shell
```

- (v) Installing Lambda Shell

```
$ cabal install
```

- (vi) Testing your installation

```
$ lambdaShell --version  
  
The Lambda Shell, version 0.9.9.1  
Copyright 2005-2011, Robert Dockins
```

6 L^AT_EX

Obsolete commands

Do not use `\bf`, `\em`, `\it`, `\rm`, `\sf`, `\sl` or `\tt`.

The above commands have some issues. For example, how produce bold italic text?

Both `{\bf \it Hello World!}` or `{\it \bf Hello World!}` do not work. You should use `\textbf{\textit{Hello World!}}` or `\textit{\textbf{Hello World!}}` instead.

See, [What's wrong with \bf, \it, etc.?](#)