

Disclaimer: The procedures described in the following are meant as an example, how to install sybil and sybilSBML on Debian Linux. Where appropriate, we added links to the original descriptions underlying specific steps. The necessary procedures on your specific platform or version of Linux operating system can be different but should be somewhat similar. We give absolutely no warranty, that this procedure will work or that there are no negative consequences of the procedure on your system. We are not claiming, that this instruction is the only and best way to install the software. NEVER use any commands given in the following description, if you are not aware of what you are doing and what the commands exactly do and mean. Only download software from trustworthy locations. Always have backups of your system.

1. Installing GNU R on Debian:

Step 1: Installing R for Mac

Please follow the instructions provided [here](#) to install the R software on Debian.

If GNU R is installed, the following command in the Terminal App should display the R version that had been installed:

```
R --version
R version 4.1.0 (2021-05-18) -- "Camp Pontanezen"
Copyright (C) 2021 The R Foundation for Statistical Computing
Platform: x86_64-apple-darwin17.0 (64-bit)
```

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under the terms of the
GNU General Public License versions 2 or 3.
For more information about these matters see
<https://www.gnu.org/licenses/>.

2. Installing the source package version of sybilSBML on Debian 10:

The procedure of installing sybilSBML from source code involves the installation of the libSBML package and the installation of the sybilSBML R source package. Please make sure, that you adjust individually presented paths according to the situation on your system.

In order to be able to build or install source packages, you might need to install some prerequisite packages on your specific installation like [liblzma-dev](#), [libblas-dev](#), [gfortran](#), [libbz2-dev](#), [libreadline-dev](#) or [texlive](#). Please check out the CRAN information about installing packages from source code and any respective error messages during the configuration procedure.

Step 1: Install libSBML from the source distribution of libSBML

The following description is based on the information found [here](#) in section 3. The libSBML software is installed via the available Debian package [here](#). In this documentation, [libSBML-5.219.0-Linux-x64.deb](#) was used.

Download the package from the libSBML download page. Then install it with the following command (Adjust the path according to the situation on your system):

```
sudo dpkg -i /home/mayo/libSBML-5.19.0-Linux-x64.deb
```

Step 2: Add installation directory to the shared library directories

On our system, the package was default installed into `/usr/lib64`. The following steps are necessary for the shared library loader to be able to find the libSBML shared libraries at runtime.

Create a file in `/etc/ld.so.conf.d` with the name `sbml.conf` and open it in an editor. In this description, the editor `nano` was used.

```
sudo nano /etc/ld.so.conf.d/sbml.conf
```

Add the following first line to the file and save it:

```
/usr/lib64
```

Now call the command to apply changes:

```
sudo ldconfig
```

Step 3: Installing sybil package

Start the R environment and type the following command:
`install.packages("sybil")`

Step 4: Installing sybilSBML

Download the source code package version [here](#). In the Terminal App, type the following command (adjust example file path given here to the correct location of the `.tar.gz` file on your system):

```
R CMD install /home/mayo/sybilSBML_3.1.3.tar.gz
```

Step 5: Loading libraries

You should now be able to load the libraries by starting R and typing the following commands:

```
library(sybil)  
library(sybilSBML)
```