How to install hspice on linux

We need three packs to install hspice on linux
A) Synopsys Installer 3.3 Linux

B) hspice_vL-2016.06-SP1_common.spf
and
hspice_vL-2016.06-SP1_linux64.spf

C) Synopsys ® Common Licensing (SCL)

1) chmod +x SynopsysInstaller_v3.3.run

2) If we run this file it asks a path of directory to extract some files in it
so create a Synopsys folder in your home(or every thing else, but I'll go with Synopsys)

3) ./SynopsysInstaller_v3.3.run
and when it asks:
"Please specify installation directory [.]: "
type the address of the Synopsys folder: "/home/YOUR USER HERE/Synopsys"

```
→ Synopsys Installer 3.3 Linux ./SynopsysInstaller_v3.3.run

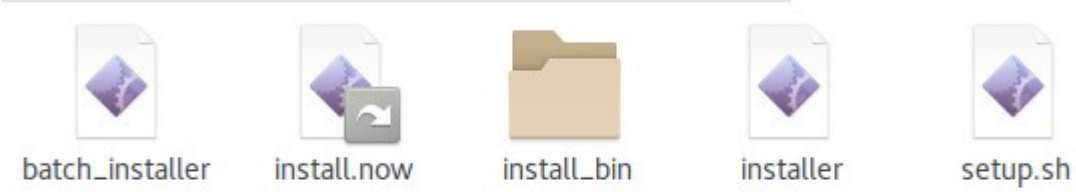
 #**************************************************************
 #
 #    Synopsys Installer Self-Extracting Executable
 #
 #    This script extracts and installs Synopsys Installer 3.3 into
 #    the given directory
 #
 #    For help type:
 #
 #       SynopsysInstaller_v3.3.run -help
 #
 #**************************************************************

Please specify installation directory [.]: /home/habib/Synopsys
Installing Synopsys Installer 3.3 into the directory '/home/habib/Synopsys'...

  Unpacking: SynopsysInstaller.tgz ...

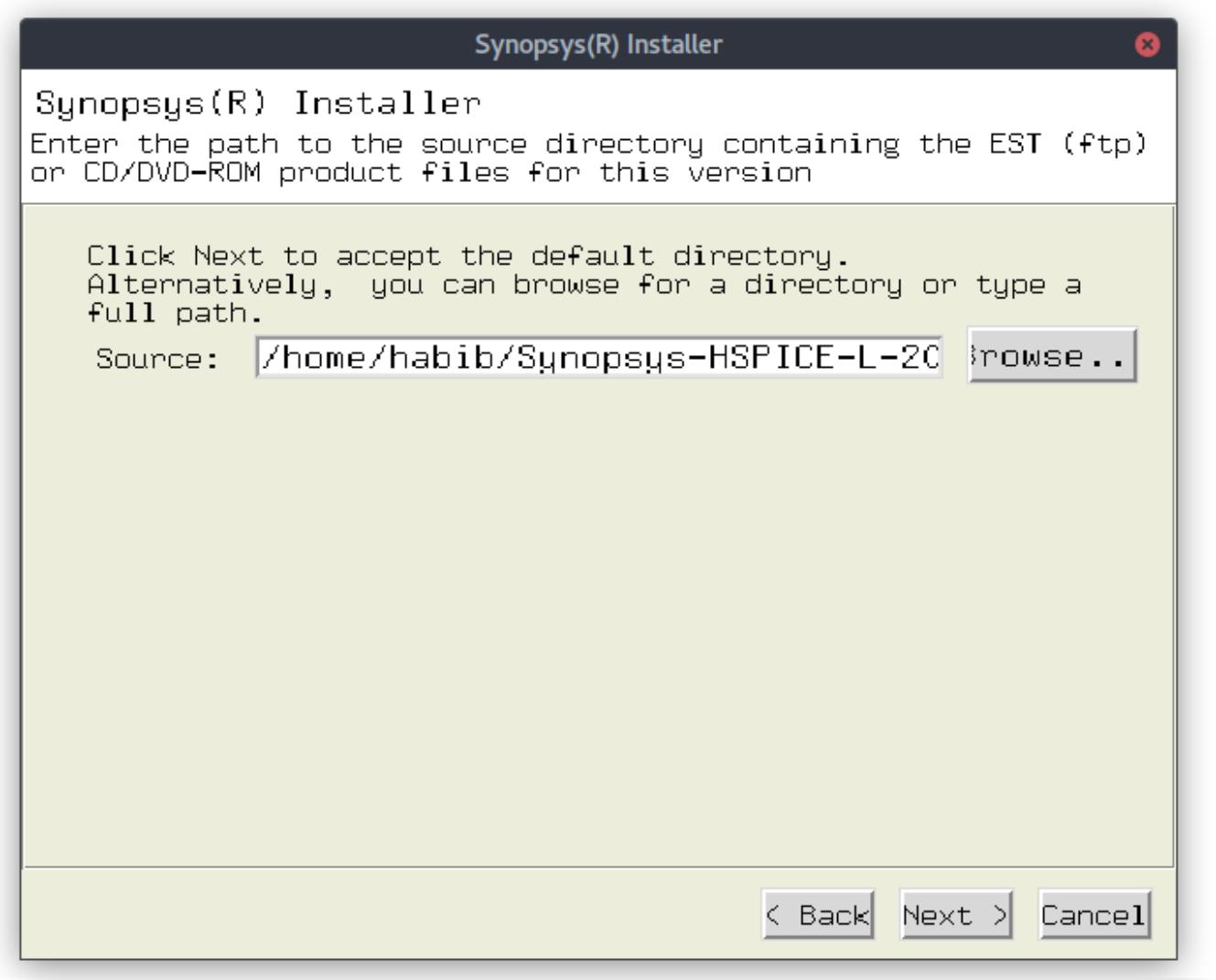
Installation complete.
```

4) If you go to *Synopsys folder* you should see these files created

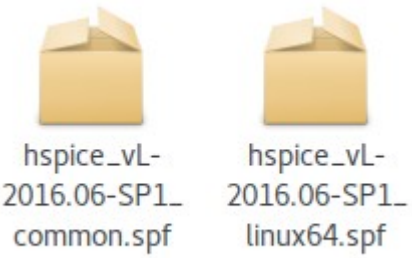


5) Then you should install *tcsh* package
➜ ~ sudo apt install tcsh

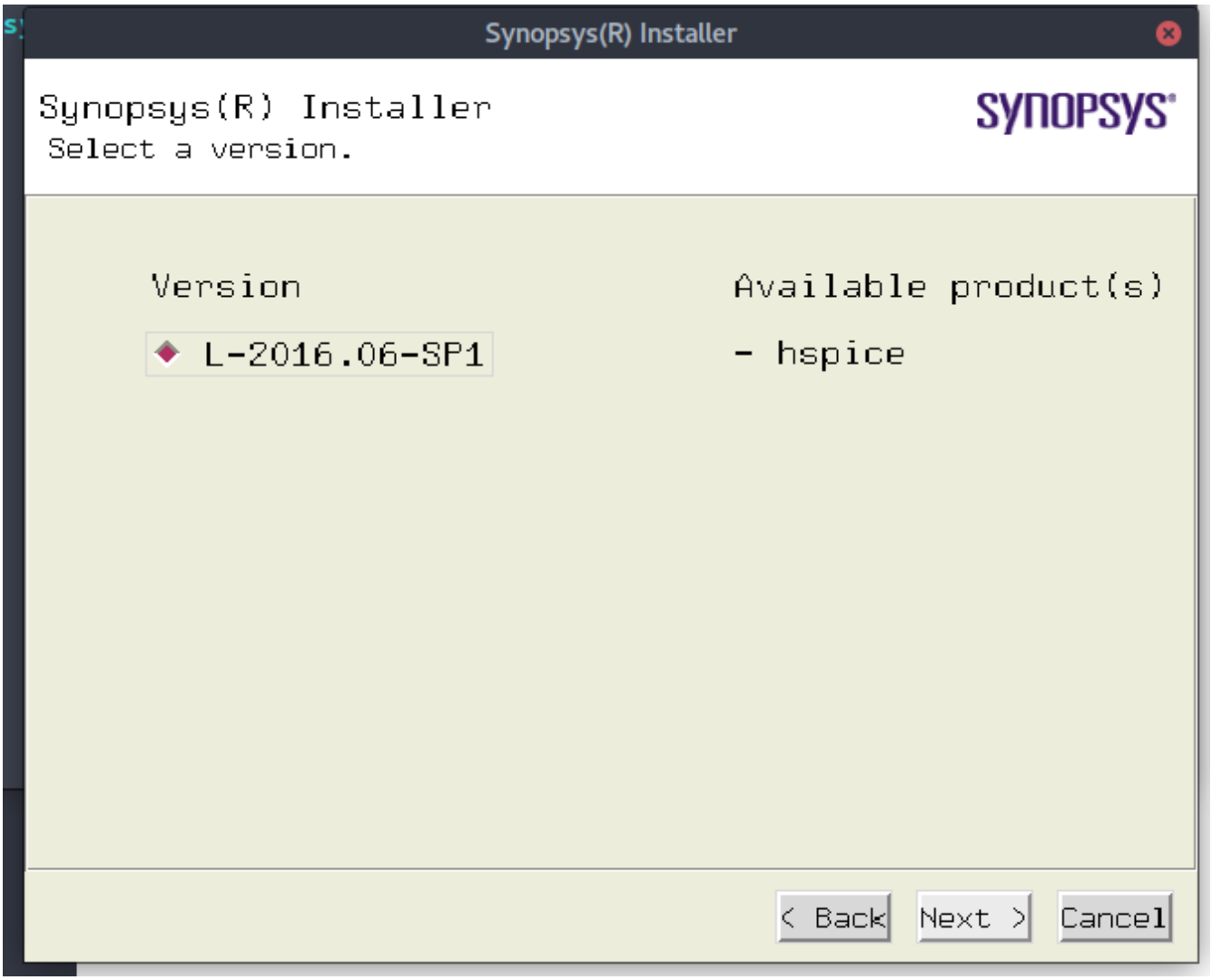
6) Go to the Synopsys folder and run ./setup.sh

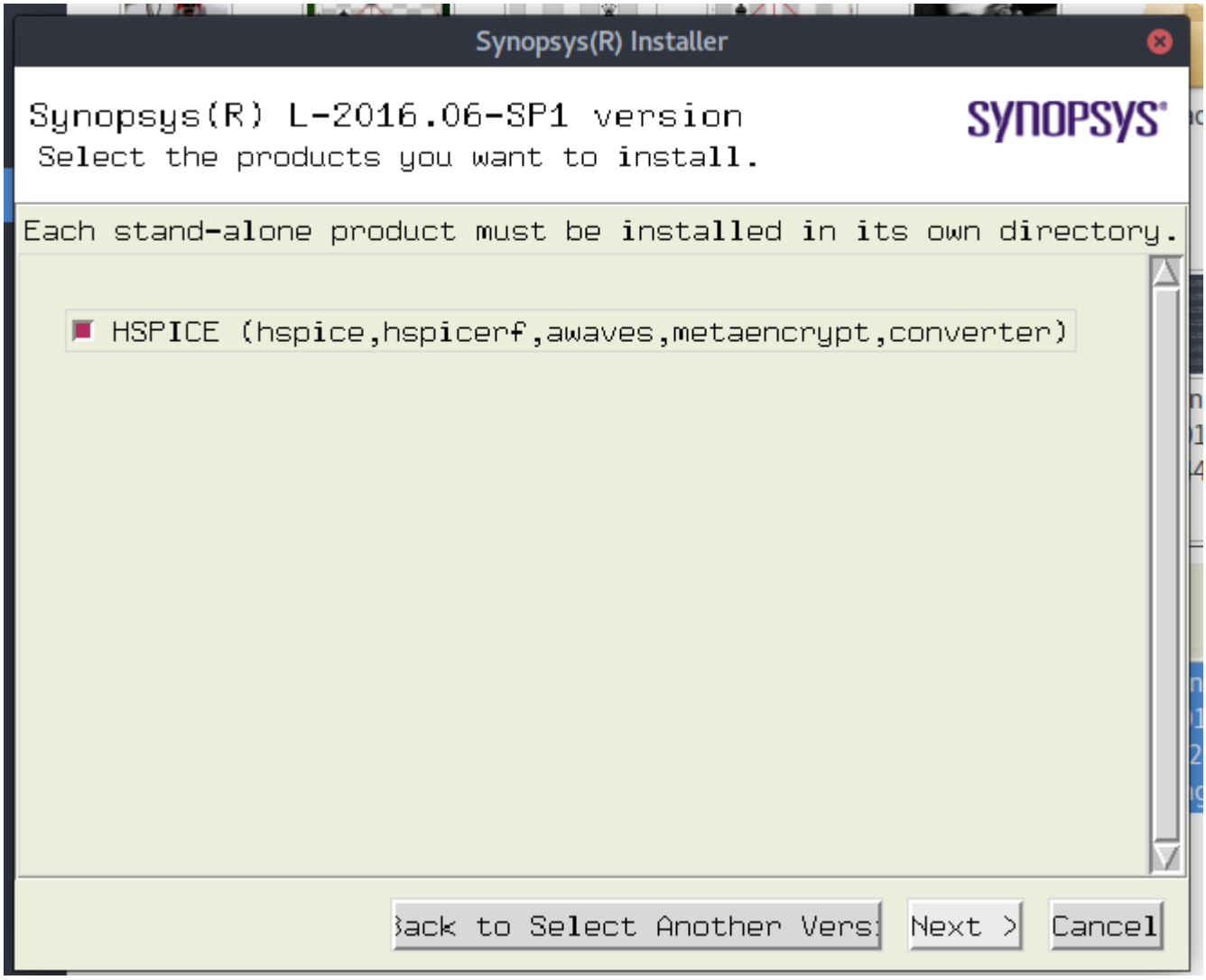


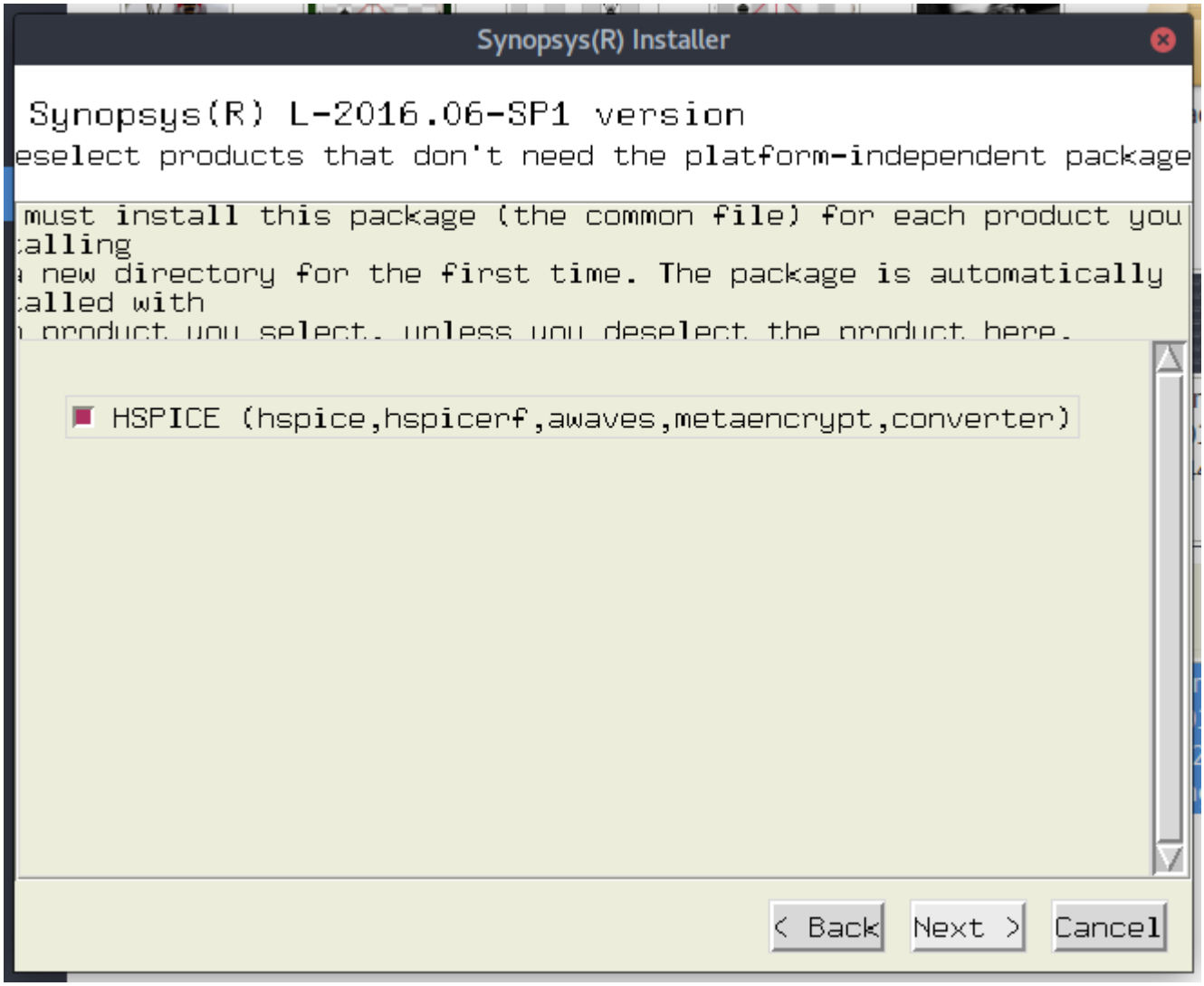
In source field type the address of folder that contains the below two files

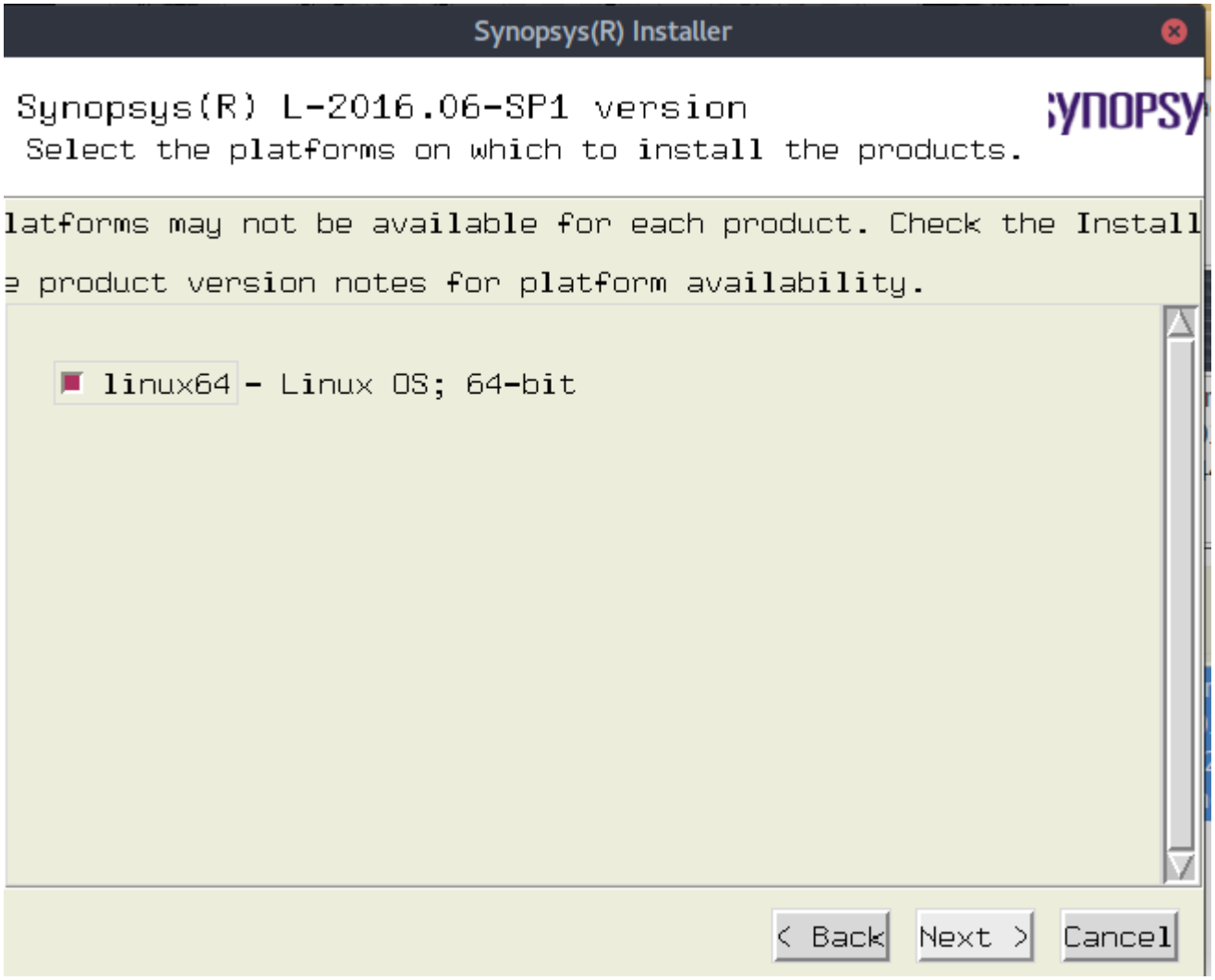


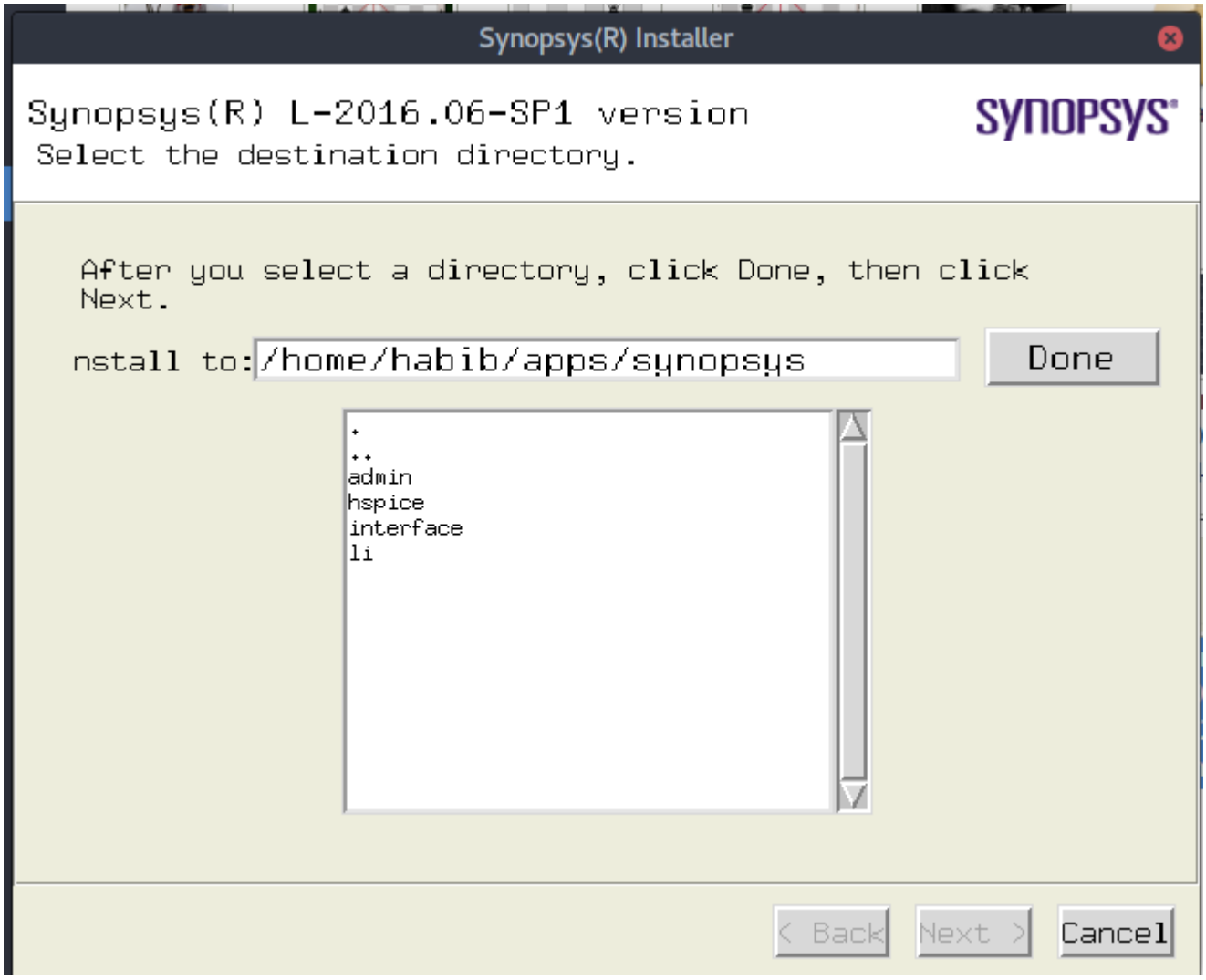
press multiple times next until it asks the install path then give the path and press next

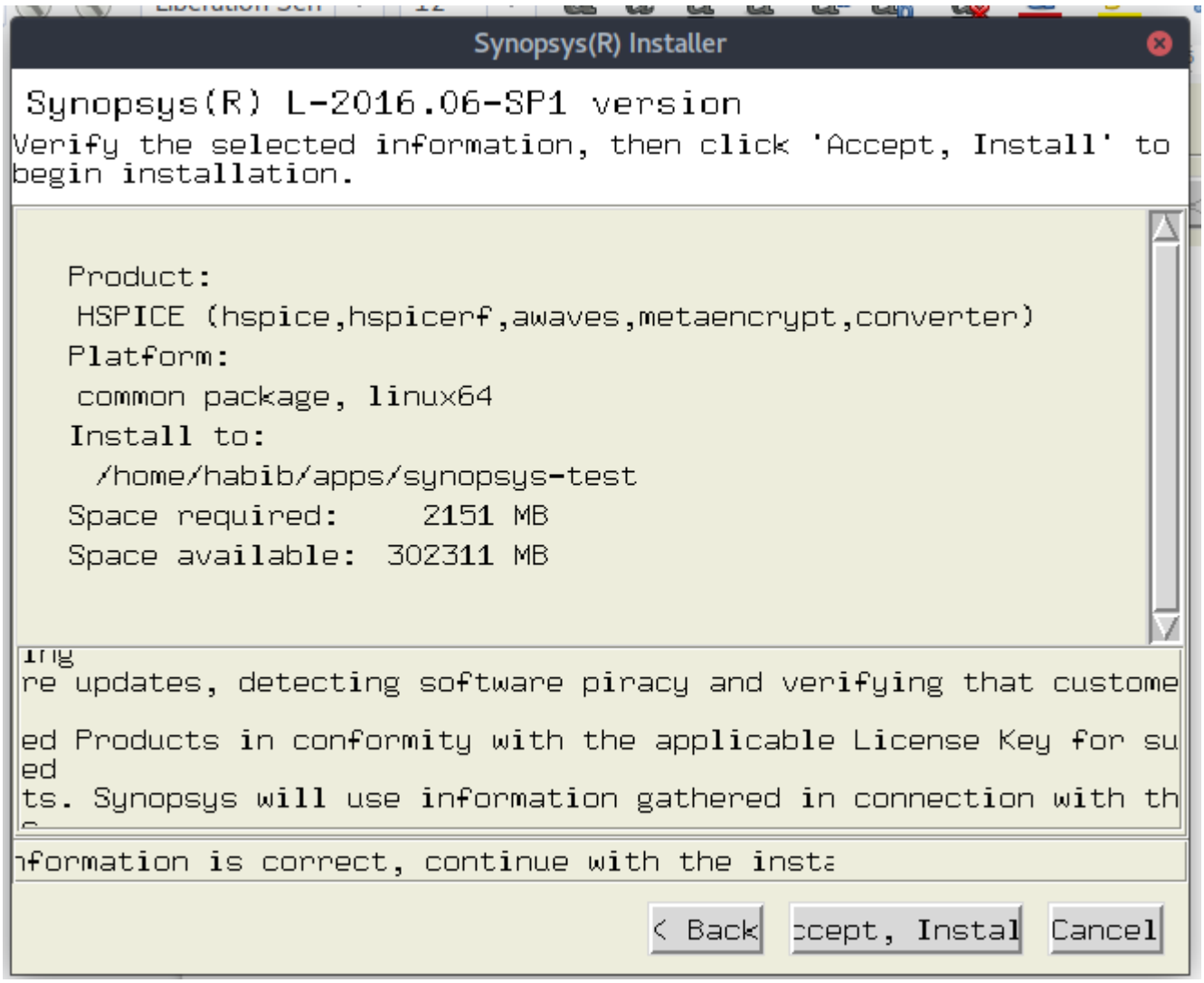



Synopsys(R) Installer
Synopsys(R) L-2016.06-SP1 version
Select the products you want to install.
SYNOPSYS
Each stand-alone product must be installed in its own directory.
HSPICE (hspice,hspicerf,awaves,metaencrypt,converter)
ack to Select Another Vers
Next >
Cancel


Synopsys(R) Installer
Synopsys(R) L-2016.06-SP1 version
eselect products that don't need the platform-independent package
must install this package (the common file) for each product you
alling
new directory for the first time. The package is automatically
alled with
HSPICE (hspice,hspicerf,awaves,metaencrypt,converter)
< Back
Next >
Cancel


Synopsys(R) Installer
Synopsys(R) L-2016.06-SP1 version
Select the platforms on which to install the products.
latforms may not be available for each product. Check the Install
e product version notes for platform availability.
linux64 - Linux OS; 64-bit
< Back
Next >
Cancel


Synopsys(R) Installer
Synopsys(R) L-2016.06-SP1 version
Select the destination directory.
SYNOPSYS
After you select a directory, click Done, then click Next.
nstall to:/home/habib/apps/synopsys
Done
.
..
admin
hspice
interface
li
< Back
Next >
Cancel



Press “Accept, Install” then press “finish”

7) Now it’s installed in the given path (for me “*/home/habib/apps/Synopsys*”) *we should add it to our path.*

In terminal :

Vim ~/.bashrc (or any other text editor you know instead of vim)

go to the end of file add this line:

export PATH=$PATH:/home/habib/apps/synopsys/hspice/bin

(You should put your path instead of /home/habib/apps/synopsys/hspice/bin)

then in terminal :

source ~/.bashrc

Hspice is installed and if you type hspice in terminal it should print something like this:

```
→ ~ hspice

                                HSPICE (TM)

             Version L-2016.06-SP1 for linux64 - Aug 24, 2016

                    Copyright (c) 1986 - 2016 Synopsys, Inc.
   This software and the associated documentation are proprietary to Synopsys,
 Inc. This software may only be used in accordance with the terms and conditions
 of a written license agreement with Synopsys, Inc. All other use, reproduction,
            or distribution of this software is strictly prohibited.


HSPICE Usage:
Simulation Mode:
  hspice [-i] input_file [-o [output_file]] [-hpp] [-mt #num] [-mp [#num]]
         [-gz] [-n #num] [-d] [-html [html_file]] [-top] [-case]
         [-hdl filename] [-hdlpath pathname] [-vamodel name]

Distributed Mode:
 hspice [-i] input_file [-o [output_file]] -dp [#num]
        [-dpconfig [dp_configuration_file]] [-dplocation [NFS|TMP]] [-merge]

Measurement Mode:
  hspice -meas measure_file  -i wavefile  -o [output_file]

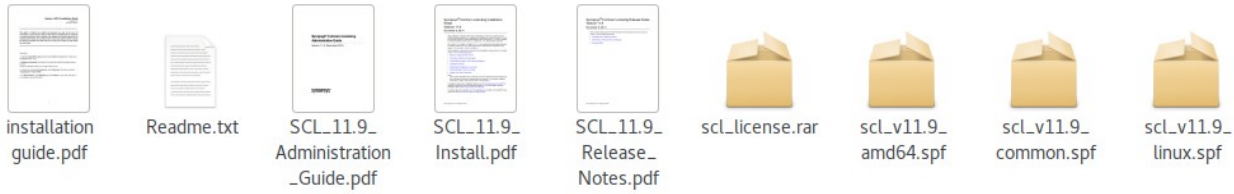
Advanced Client/Server Mode:
  Start the server:
    hspice -CC [-share inc_file] [-port port_num]
  Begin a simulation:
    hspice -CC input_file [-o output_file] [-port port_num]
  Stop the server:
    hspice -CC -K [-port port_num]

Interactive Mode:
  hspice -I [-L command.cmd]

Help Mode:
```

Now we should add the license

8) Open the crack folder:



To install Synopsys ® Common Licensing we need to repeat the step 6 but this time give the crack folder address (the folder contains scl_v11.9_1linux.spf and scl_v11.9_common.spf) and give the install path for example “/home/habib/apps/scl”

9) Add the scl to path:

Vim ~/.bashrc
and go to the end of file add this line:

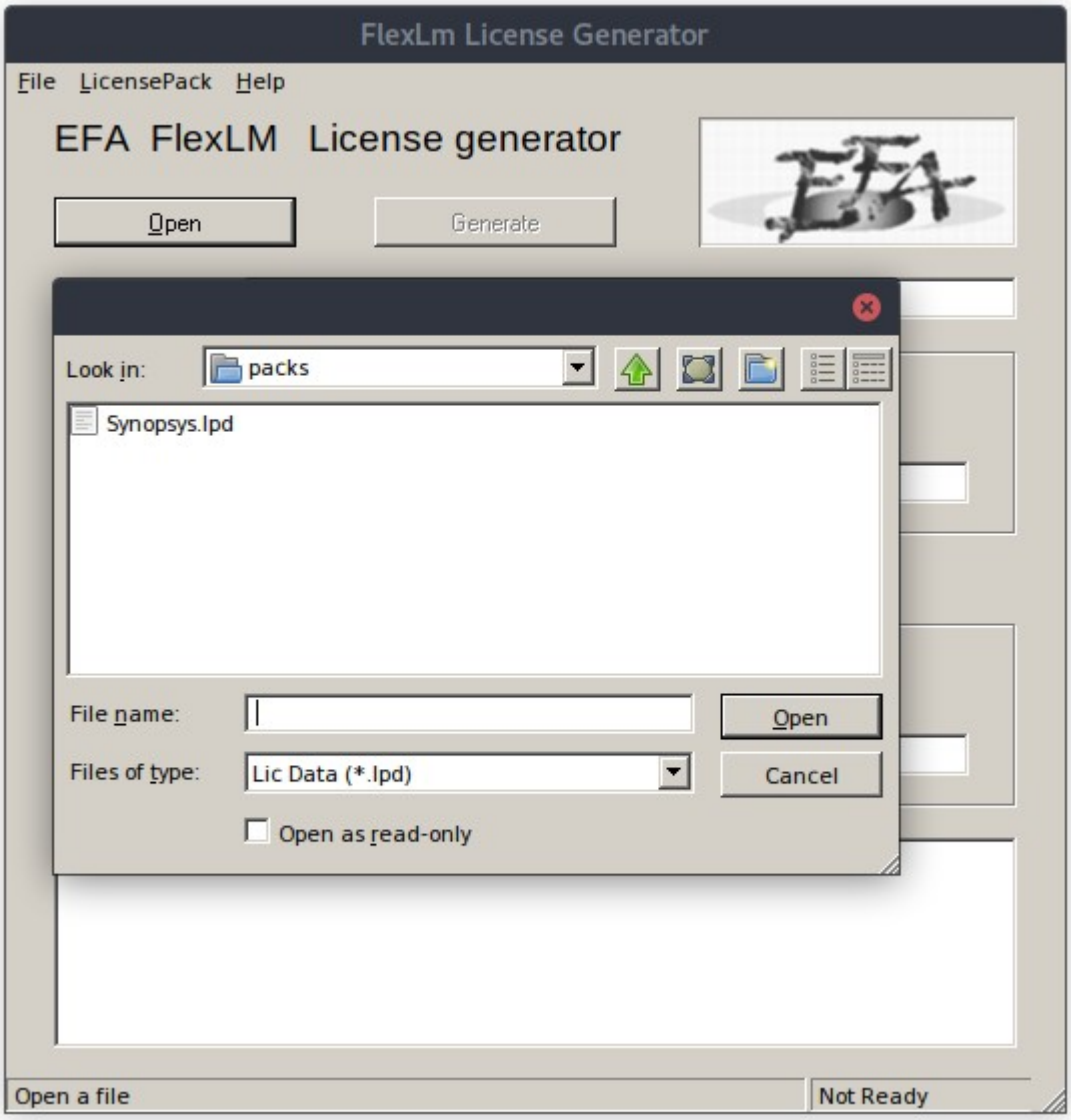
export PATH=$PATH:/home/habib/apps/scl/linux/bin
(You should put your path instead of /home/habib/apps/scl/linux/bin)
source ~/.bashrc

10) To test scl in terminal type lmgrd if you returns "No such file or directory" you should install lsb-core package:
sudo apt install lsb-core
(why? Read this link: http://alcobrov.blogspot.com/2012/01/fix-flexnet-license-server-manager.html)

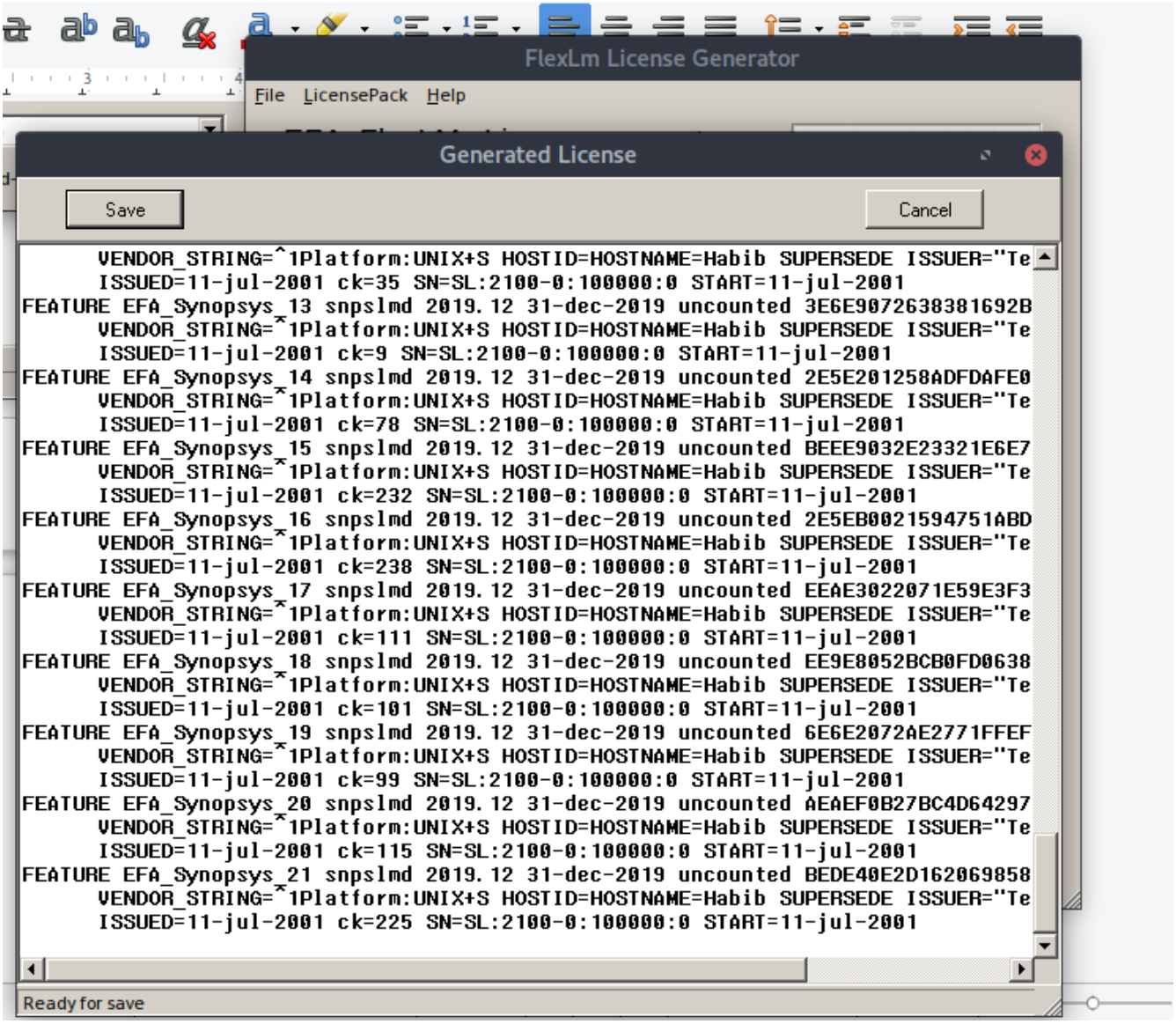
11) Install wine if you didn't before:
➜ *~ sudo apt install wine64*

12) Extract scl_license.zip

13) go to scl_license folder
wine64 ./LicGen.exe
click open
give it Synopsys.lpd in packs folder



click generate

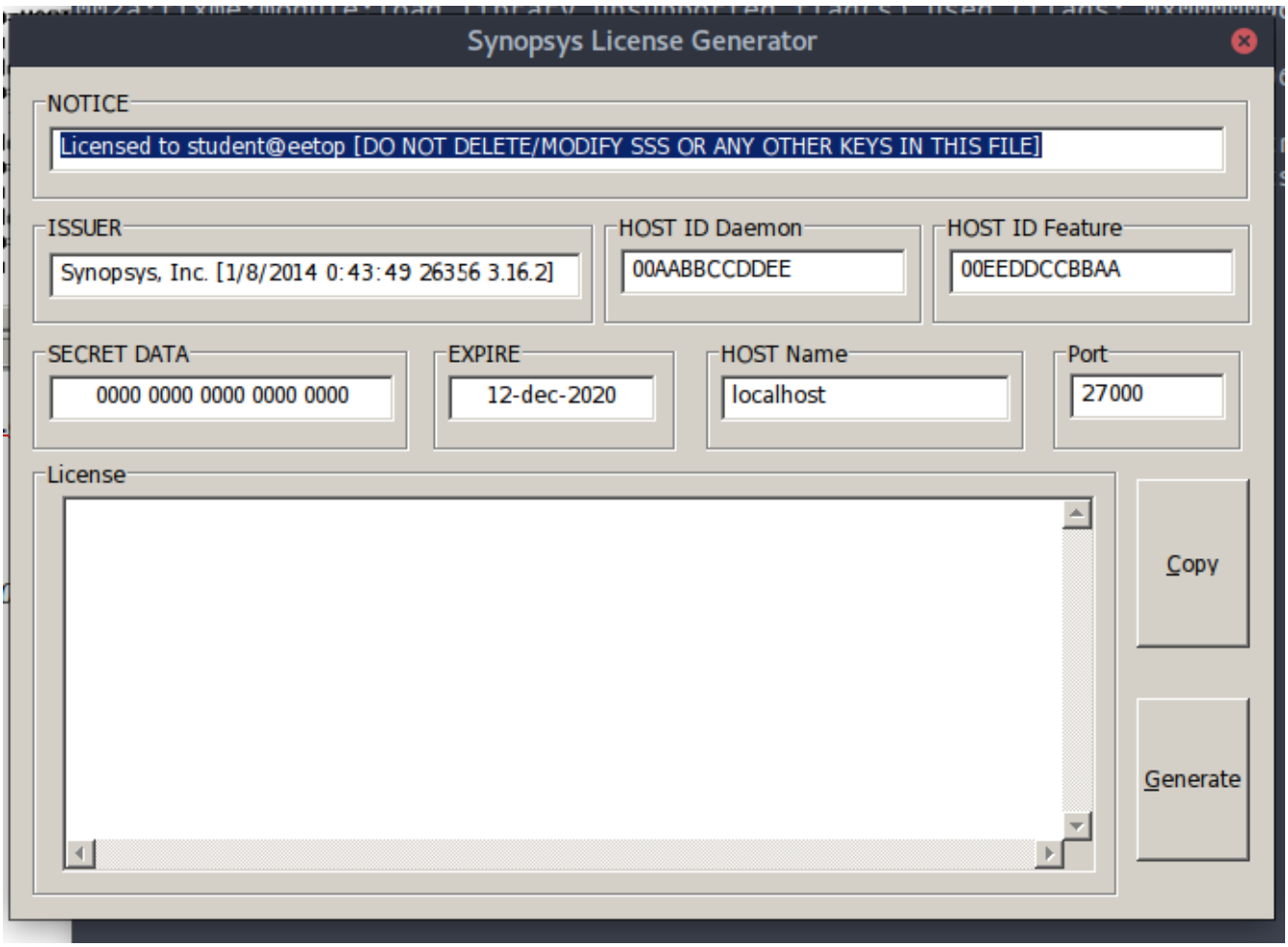


click save and save it with a name like "thelicense.data"

then
wine64 ./sssverify.exe thelicense.dat

it will generate SECRET DATA = 026f 0000 e1aa 0000 4000
copy the 026f 0000 e1aa 0000 4000

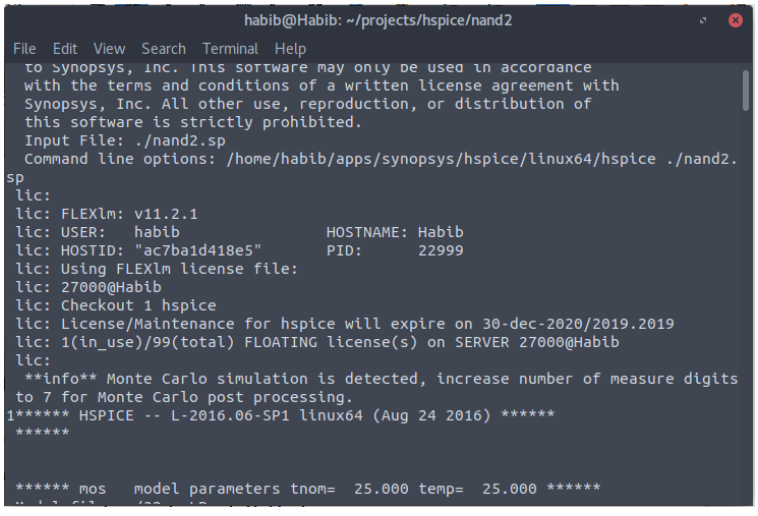
then type wine64 scl_keygen.exe



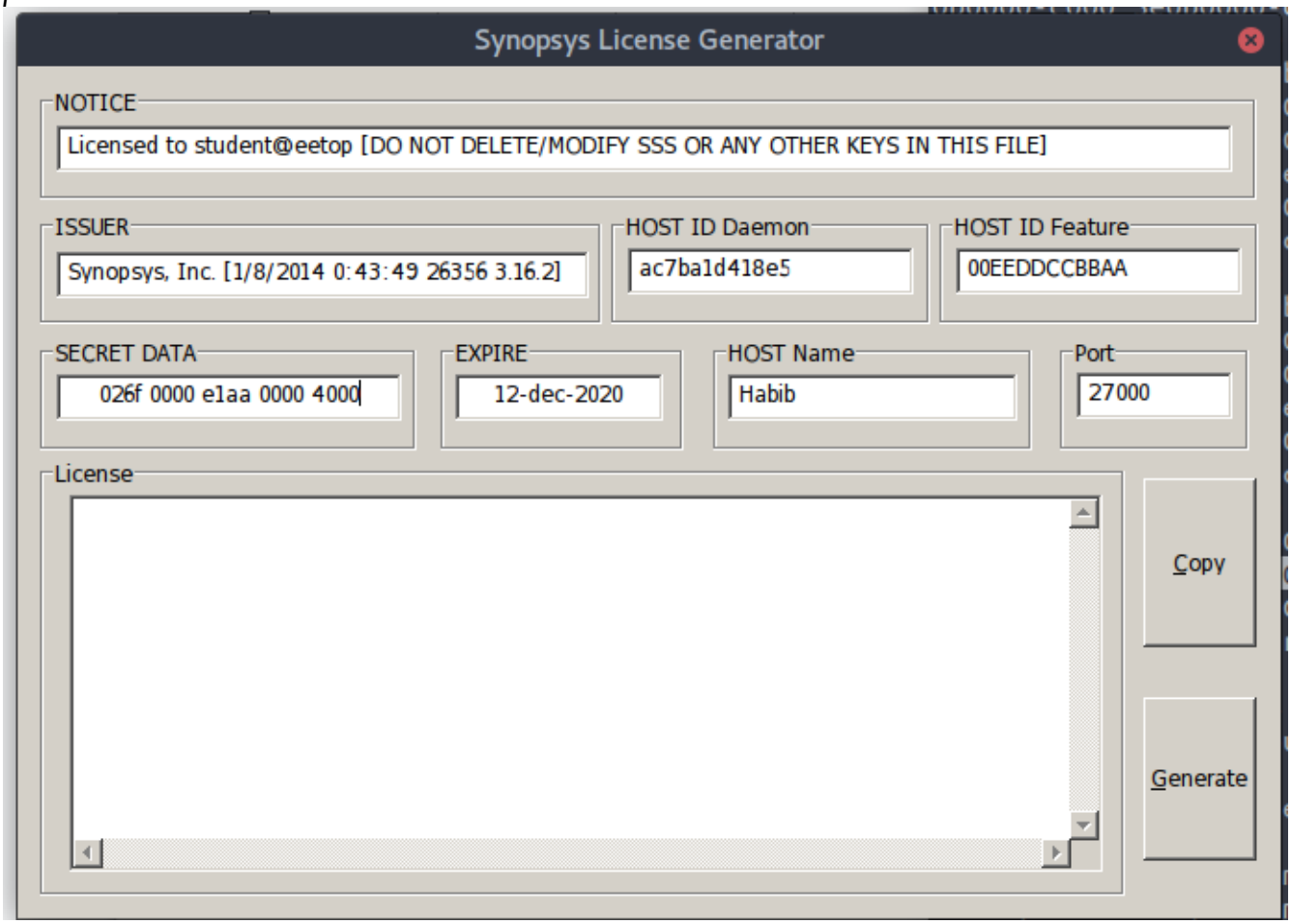
paste the secret data to Secret Data field

you should also change the HOST ID DAEMON and HOSTNAME

you can find these values with running hspice with a sample file like this
hspice -i ./nand2.sp



put HostName in HostName and HOSTID in HOST ID DAEMON



and press generate it will create Synopsys.dat in scl_license folder.

Keep that file in a safe place because we need it.

Open .bashrc and the below line
export LM_LICENSE_FILE=27000@Habib
(change Habib to your hostname)

then run the lmgrd server:
lmgrd -c ~/apps/synopsys/li/Synopsys.dat -l ~/apps/synopsys/li/debug.log

~/apps/synopsys/li/Synopsys.dat is the path of your generated license
~/apps/synopsys/li/debug.log is the path that server writes it's debug info about license

now if you run hspice ./nand2.sp
(put your sp file instead of ./nand2.sp)
it should work.