

Installing NCSU CDK in Cadence Virtuoso

Follow these steps to install the NCSU CDK library into your Cadence. No sudo is necessary for this.

1. **Download and Extract:** Download CDK v1.6.0 from [here](#) and extract it .

```
tar -xzvf NCSU-CDK-1.6.0.tar.gz
```

NB: After extracting, check what folder was created. Sometimes the `.tar.gz` creates an extra outer folder with the actual CDK files inside it. `ncsu-cdk-1.6.0` is your CDK folder

2. **Set Environment Variable in .bashrc:**

Open `.bashrc` file:

```
gedit ~/.bashrc
```

Add this line at the bottom of the file and save it.

```
export NCSU_CDK_DIR=$HOME/virtuoso_root/ncsu-cdk-1.6.0
```

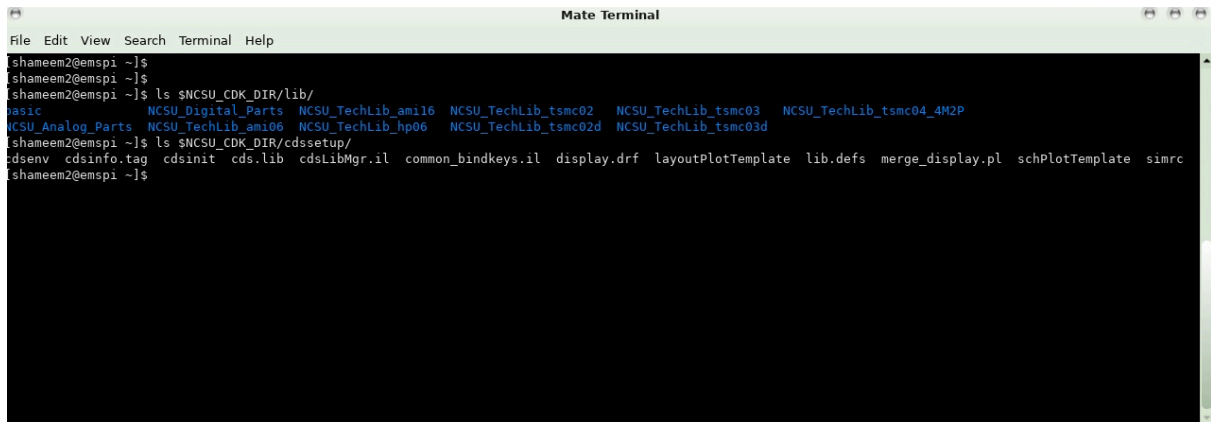
Source the file and check.

```
source ~/.bashrc  
echo $NCSU_CDK_DIR # verify it prints the correct path
```

For additional verification, you can do this:

```
ls $NCSU_CDK_DIR/lib/  
ls $NCSU_CDK_DIR/cdssetup/
```

It should print out the library folder:



```
Mate Terminal
File Edit View Search Terminal Help
shameem2@emspi ~]$
shameem2@emspi ~]$
shameem2@emspi ~]$ ls $NCSU_CDK_DIR/lib/
basic          NCSU_Digital_Parts  NCSU_TechLib_ami16  NCSU_TechLib_tsmc02  NCSU_TechLib_tsmc03  NCSU_TechLib_tsmc04_4M2P
NCSU_Analog_Parts  NCSU_TechLib_ami06  NCSU_TechLib_hp06  NCSU_TechLib_tsmc02d  NCSU_TechLib_tsmc03d
shameem2@emspi ~]$ ls $NCSU_CDK_DIR/cdssetup/
cdsenv  cdsinfo.tag  cdsinit  cds.lib  cdsLibMgr.il  common_bindkeys.il  display.drf  layoutPlotTemplate  lib.defs  merge_display.pl  schPlotTemplate  simrc
shameem2@emspi ~]$
```

3. Add path to Cadence:

Open cds.lib:

```
gedit ~/virtuoso_root/cds.lib
```

Add this line to the cds.lib and save the file.

```
SOFTINCLUDE $NCSU_CDK_DIR/cdssetup/lib.defs
```

Open .cdsinit

```
gedit ~/virtuoso_root/.cdsinit
```

At the top of the file, add the following line and save the file

```
load( strcat( getShellEnvVar("NCSU_CDK_DIR") "/cdssetup/cds
init" ) )
```

4. Launch Virtuoso:

```
cd ~/virtuoso_root
module load virtuoso
virtuoso
```

You can use the newly installed library from the library manager now.

