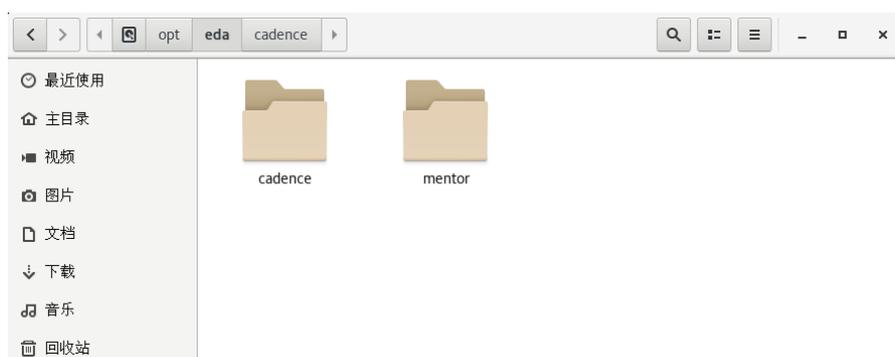


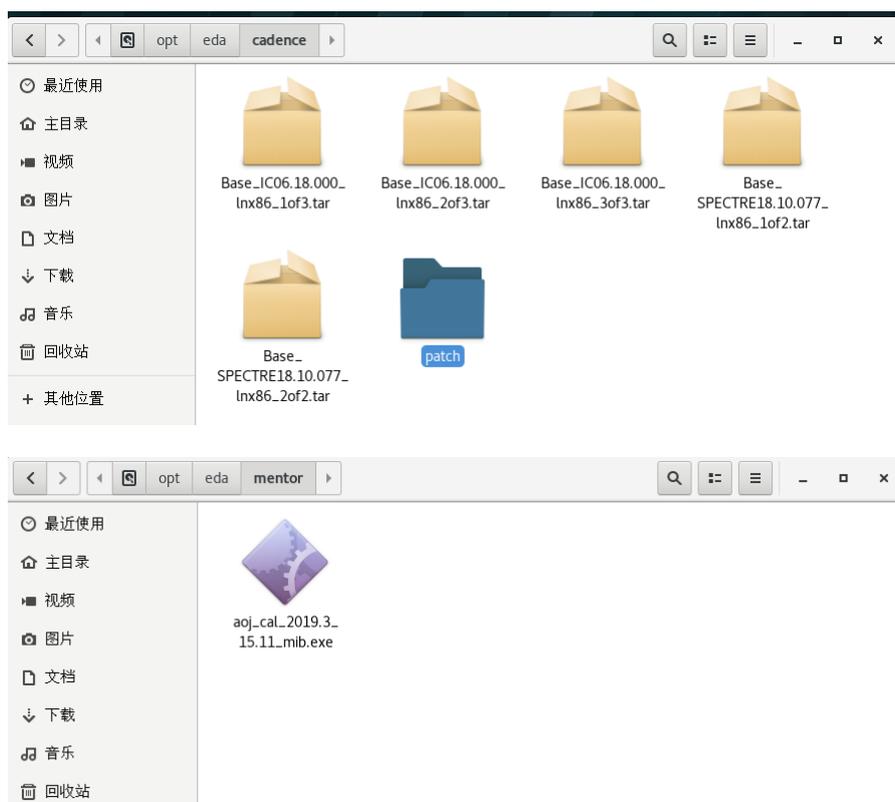
IC618 的安装

可以使用普通账户进行安装，也可以直接使用 root 账户进行安装；对于不太熟悉 linux 命令的同志，使用 root 账户安装相对简单一点，下面以 root 账号将 eda 软件安装在/opt 目录下作为示例。

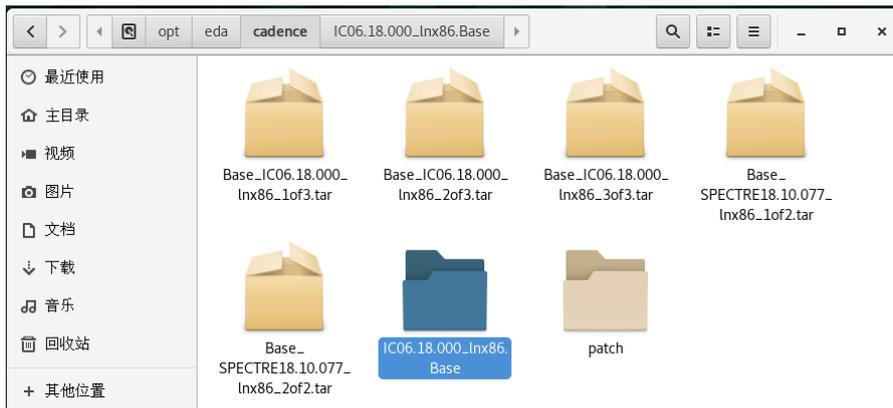
1、root 账号登陆系统，在 opt 目录下建立 eda 文件夹（可直接鼠标右键，也可以用命令 mkdir），在/opt/eda 目录下建立 cadence 目录；在/opt/eda 目录下创建 mentor 目录。



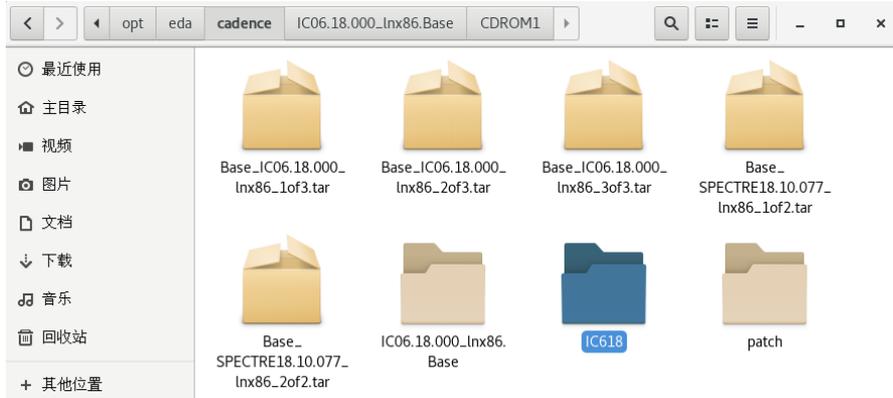
2、将 IC618、SPECTRE18、calibre2019 安装包和 patch 工具复制到 linux 虚拟机，直接在 windows 下右键复制，在 linux 系统里面右键粘贴即可（有时等第一次粘贴完成后，需要再右键粘贴一次）。



2、进入/opt/eda/cadence 目录下，解压缩 IC618 的三个压缩包，鼠标右键-->提取到此处即可解压缩，



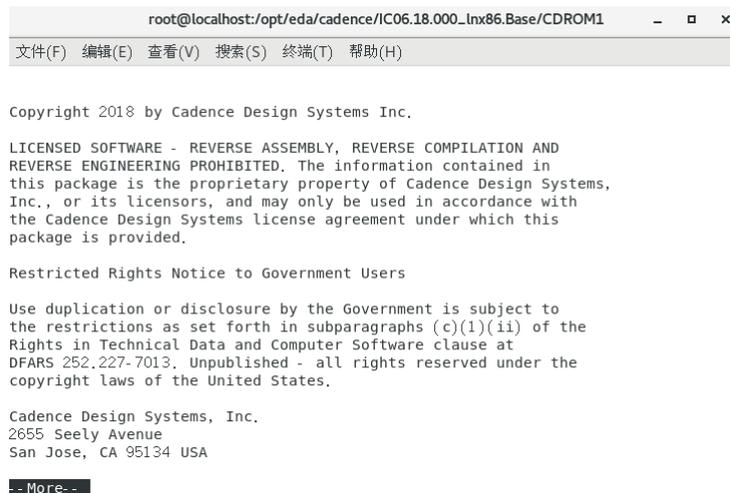
1、在/opt/eda/cadence 目录下创建 IC618 文件夹，作为 IC618 的安装目录。



3、进入/opt/eda/cadence/IC06.18.000_Inx86.Base/CDROM1 目录下，右键打开终端，在终端中输入./SETUP.SH，按 Enter 键执行命令。



4、在弹出的界面中，继续按 Enter。



5、按照提示，输入 IC618 安装目录/opt/eda/cadence/IC618 后，按 Enter 键。

Located CDROM at /opt/eda/cadence/IC06.18.000_lnx86.Base/CDROM1

The tar command to use is: /bin/tar -x -b 1 -f -

Specify path of install directory [OR type [RETURN] to exit]: /opt/eda/cadence/IC06.18.000_lnx86.Base/CDROM1

6、由于没有事先安装 InstallScape，首先在/opt/eda/cadence 目录下创建 iscape 文件夹，然后按照提示安装。

```
root@localhost:/opt/eda/cadence/IC06.18.000_lnx86.Base/CDROM1 - _ □ ×
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)

Could not detect InstallScape for lnx86 platform using the PATH environment variable.

It is recommended to have only one installation of InstallScape for lnx86 platform. If an InstallScape installation exists please help us find it.

Do you have InstallScape for lnx86 platform installed[y/n]?n

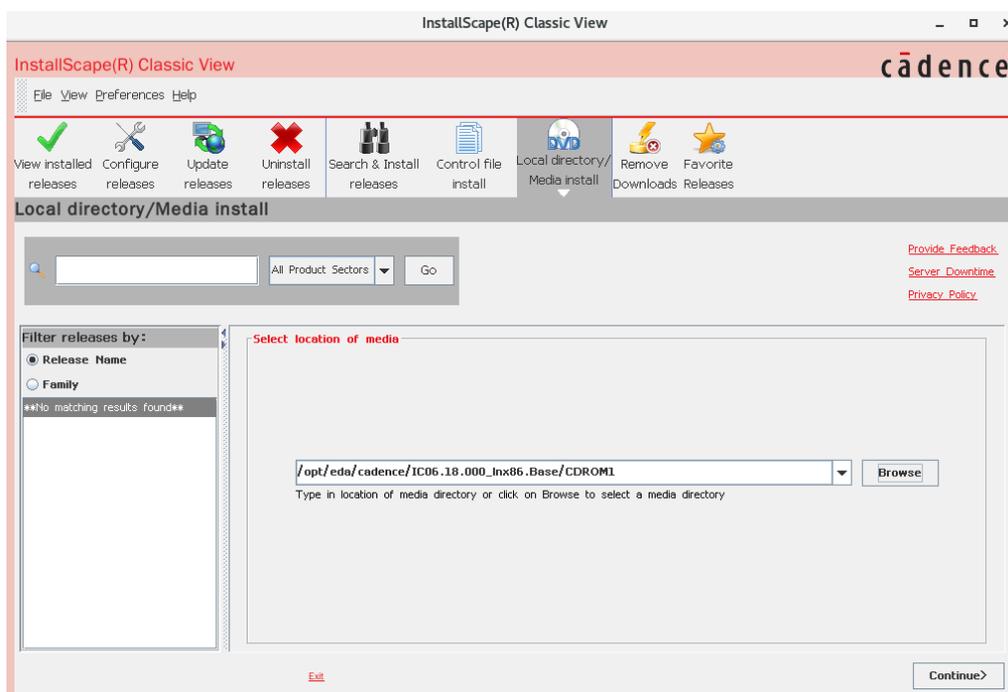
You are on lnx86 platform
InstallScape version 04.23.s12
for platform lnx86
is available on this media.

Do you want to install InstallScape for lnx86 [y/n]?y

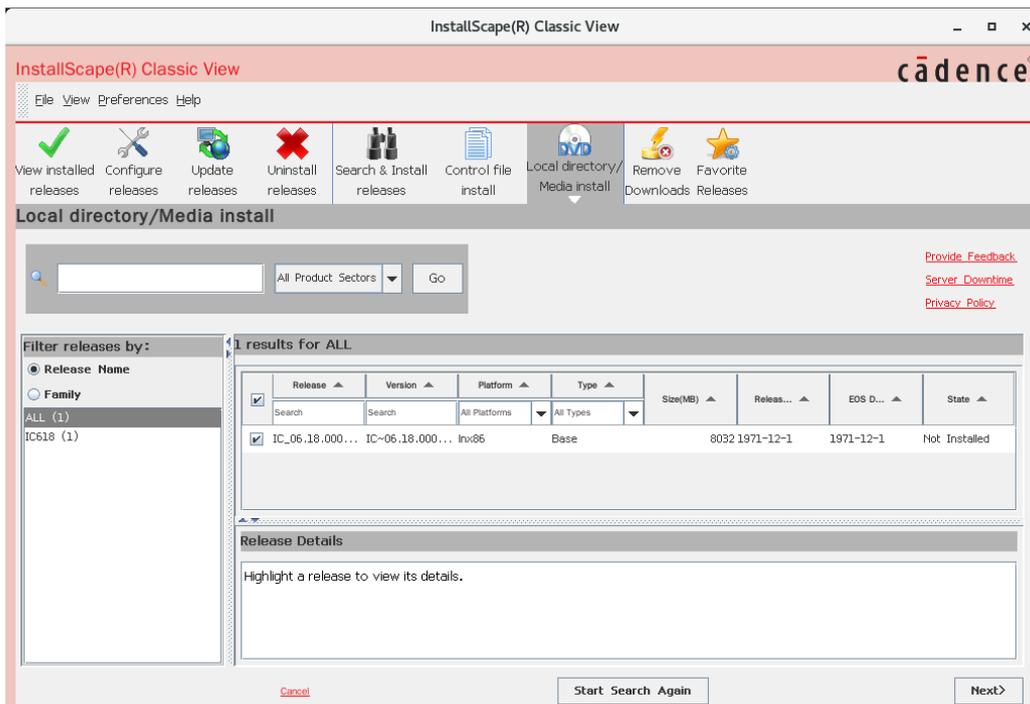
It is recommended that you install InstallScape outside the Cadence installation hierarchy and include the ~/iscape/bin in your PATH environment variable.

Type the path to InstallScape installation directory [ (q to quit)]: /opt/eda/cadence/iscape
```

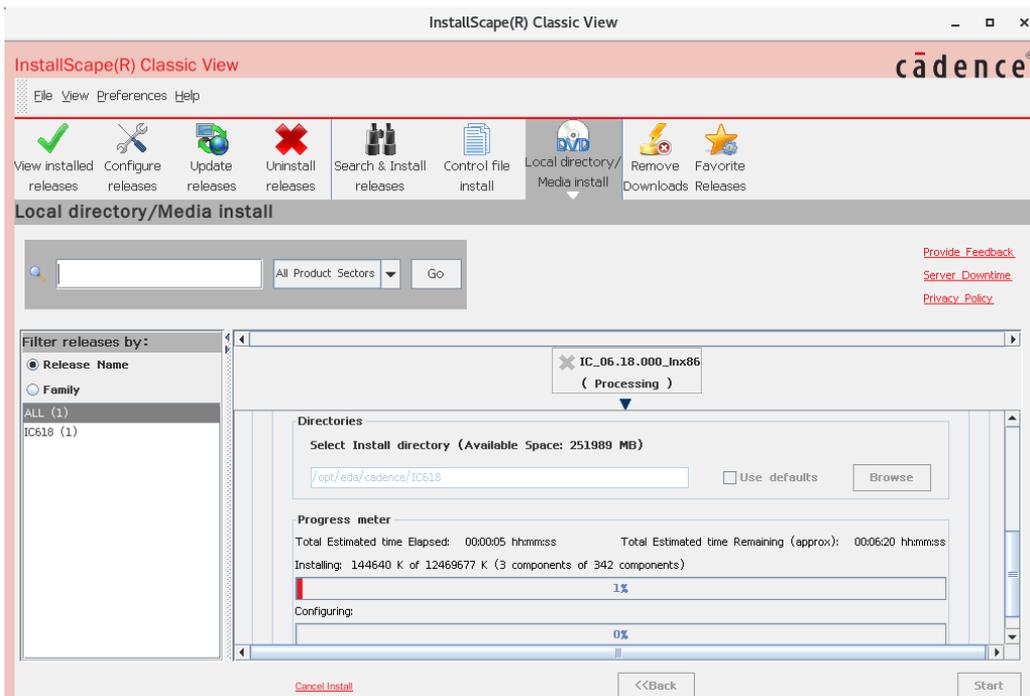
7、安装完后弹出 InstallScape 界面，选择 Local directory/Media install，点击 Browse，选择安装包的路径，然后点击 Continue。



8、在弹出来的界面中勾选 IC_06.18.000 后，点击 Next。



9、在弹出来的界面中，选择好 IC618 的安装路径后，点击 Start 开始安装。



10、安装完成后，需要进行配置，大部分的配置可以直接按 Enter，有两个需要注意一下，一个是提示要不要安装库文件，可以选择安装；另外一个提示要不要使用默认的 OA 路径，建议选择默认的就成。

```

Cadence_lfvhdComp02.85-a002Inx86_Config

Proceeding with configuration of lfvhdComp

Synergy users must install these libraries
Install Valid library and Sim primitives? (<cr> = n): y
Install XL library and Gate primitives? (<cr> = n): y
Installing Leapfrog Analyzer and Design library...
Library installation...

./tools.lnx86/leapfrog/files/install/lfvhdComp.ins: /opt/eda/cadence/IC618/tools/leapfrog/bin/vrelocate: /lib/ld-linux.s
o.2: bad ELF interpreter:
chmod: "STD":
./tools.lnx86/leapfrog/files/install/lfvhdComp.ins: /opt/eda/cadence/IC618/tools/leapfrog/bin/vrelocate: /lib/ld-linux.s
o.2: bad ELF interpreter:
chmod: "IEEE":
./tools.lnx86/leapfrog/files/install/lfvhdComp.ins: /opt/eda/cadence/IC618/tools/leapfrog/bin/vrelocate: /lib/ld-linux.s
o.2: bad ELF interpreter:
chmod: "SYNERGY":
./tools.lnx86/leapfrog/files/install/lfvhdComp.ins: /opt/eda/cadence/IC618/tools/leapfrog/bin/vrelocate: /lib/ld-linux.s
o.2: bad ELF interpreter:
chmod: "XL":
./tools.lnx86/leapfrog/files/install/lfvhdComp.ins: /opt/eda/cadence/IC618/tools/leapfrog/bin/vrelocate: /lib/ld-linux.s
o.2: bad ELF interpreter:
chmod: "VALID":
./tools.lnx86/leapfrog/files/install/lfvhdComp.ins: /opt/eda/cadence/IC618/tools/leapfrog/bin/vrelocate: /lib/ld-linux.s
o.2: bad ELF interpreter:
chmod: "SIM":

Installation of Leapfrog Analyzer and Design libraries complete

This window will close in 20 seconds
Run setenv ISCAPE_SLEEP <n> to change to <N> seconds
Press Enter to close this window
20 19 18 17 16 15 █

```

```

Cadence_oaRedist22.60-p007Inx86_Config

-----
Welcome to the OpenAccess 2.2 Configuration Utility.

Important: Before continuing, first close all applications that use OpenAccess
libraries. Then make sure that there are no oalMTurboServer processes running
(kill these processes with the kill command on UNIX/Linux).

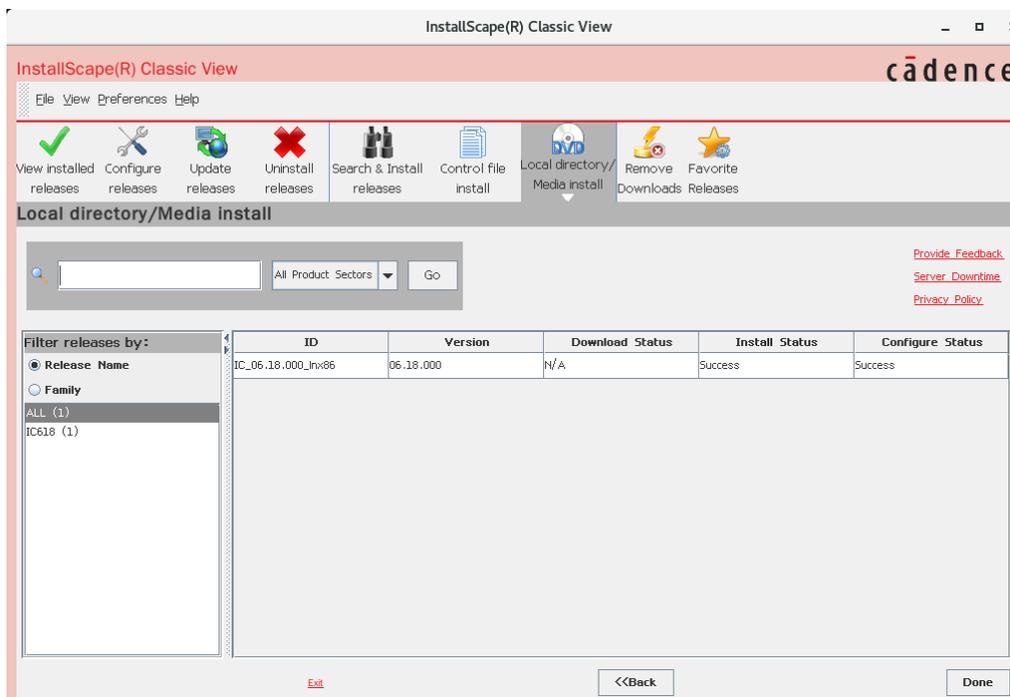
Press Enter to continue (q to quit):
-----
This utility lets you specify a different OpenAccess installation to use.

The current installation is [/opt/eda/cadence/IC618/oa_v22.60.007]
Do you want to use a different OpenAccess installation (y/n/q) ? [y] n

This window will close in 20 seconds
Run setenv ISCAPE_SLEEP <n> to change to <N> seconds
Press Enter to close this window
20 19 18 █

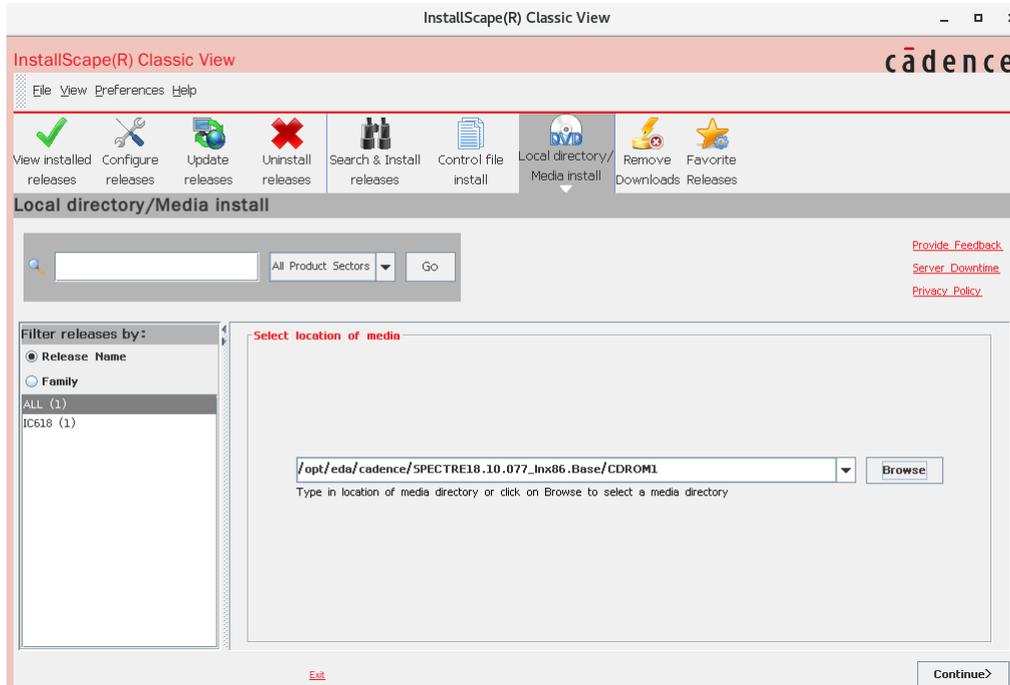
```

11、配置完成后，完成了 IC618 的安装，不要关掉下图界面，继续进行 SPECTRE181 的安装。

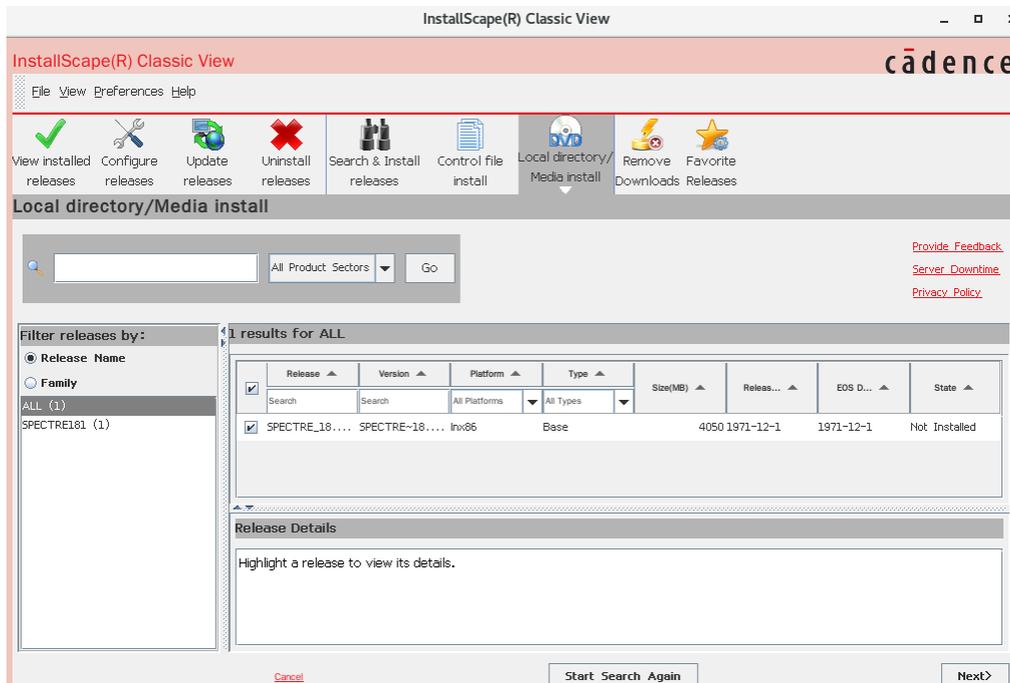


SPECTRE181 的安装

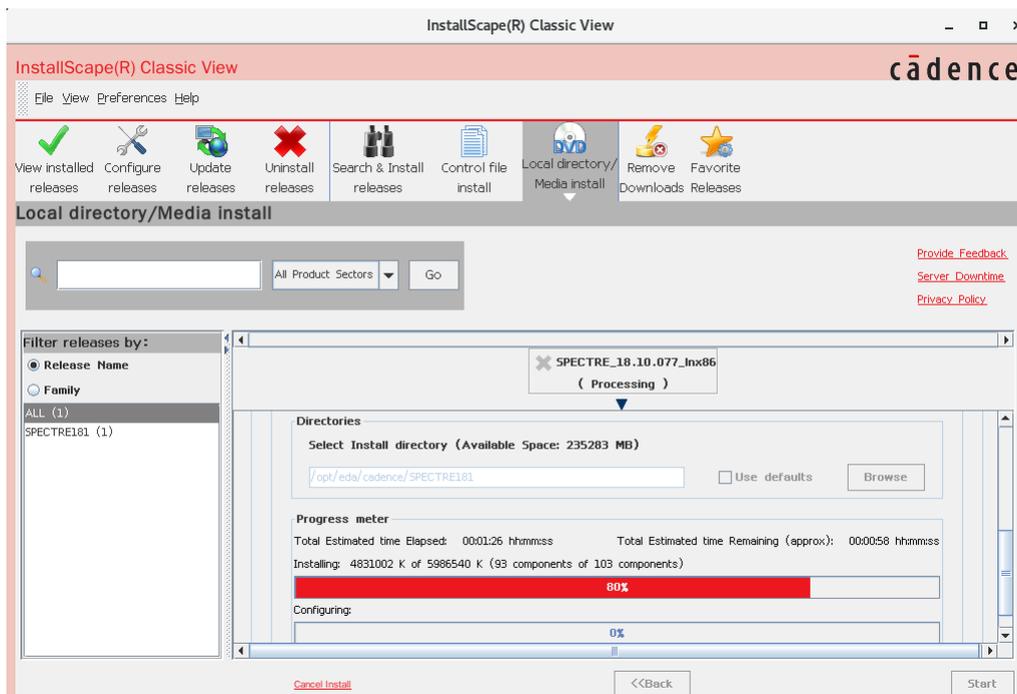
1、解压 SPECTRE 的两个压缩包，并在/opt/eda/cadence 目录创建 SPECTRE181 文件夹，用来作为 SPECTRE 的安装目录。点击上图中的 Done，在弹出来的界面中点击 Cancel，返回到下图界面，选择 SPECTRE 的安装包存放路径，点击 Next。



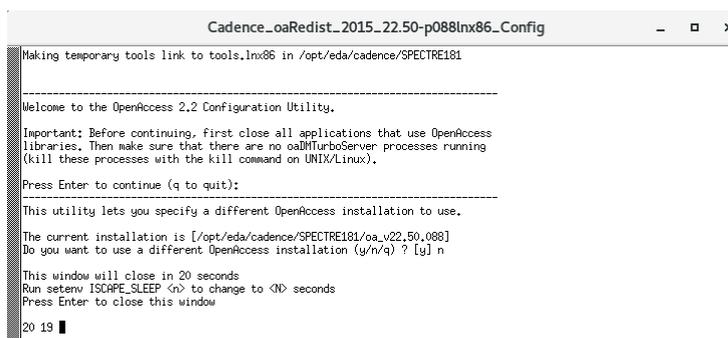
2、勾选 SPECTRE_18，点击 Next。



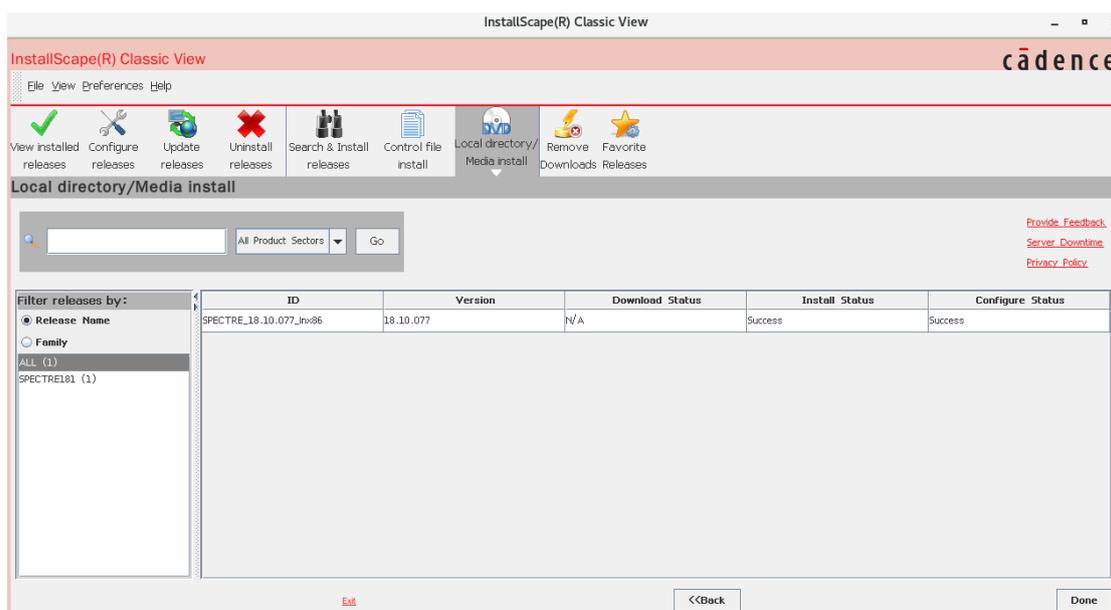
4、选择好 SPECTRE 的安装路径，点击 Start 开始安装。



5、在弹出来的配置界面中，选择默认的 OA 路径即可。

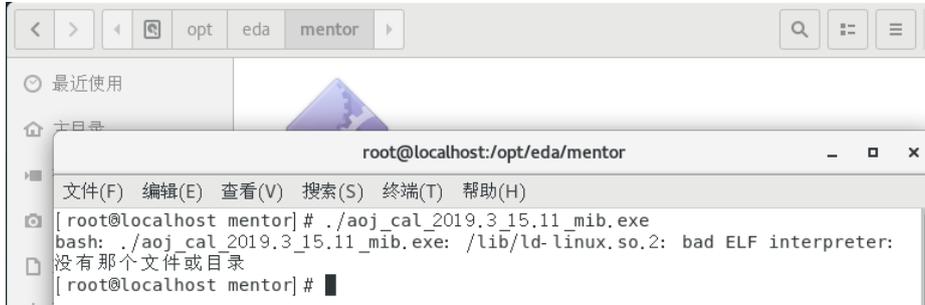


6、安装成功后的界面如下图所示。

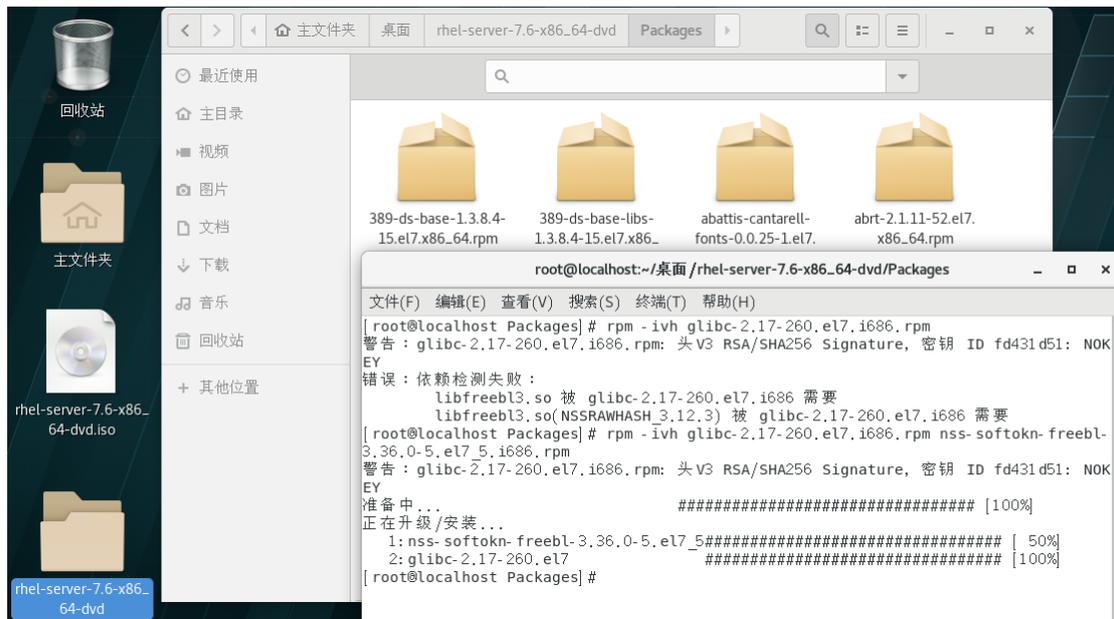


安装 Calibre2019

1、进入存放 calibre2019 安装包的目录/opt/eda/mentor，创建 calibre2019 文件夹，作为 calibre 的安装路径；进入 calibre2019 目录，右键打开终端，输入./aoj_cal_2019.3_15.11_mib.exe，按 Enter。



2、提示缺少 ld-linux.so.2，需要先安装 32 位的 glibc 库；将 linux 系统的镜像问价复制到 linux 虚拟机并提取出来，进入 Packages 文件夹，右键打开终端，输入 rpm -ivh glibc-2.17-260.el7.i686.rpm nss-softokn-freebl-3.36.0-5.el7_5.i686.rpm，按 Enter，完成 glibc 库的安装。



7、回到 calibre 的安装终端，继续输入./aoj_cal_2019.3_15.11_mib.exe，按 Enter。

```
root@localhost:/opt/eda/mentor
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)
[root@localhost mentor] # ./aoj_cal_2019.3_15.11_mib.exe
bash: ./aoj_cal_2019.3_15.11_mib.exe: /lib/ld-linux.so.2: bad ELF interpreter:
没有那个文件或目录
[root@localhost mentor] # ./aoj_cal_2019.3_15.11_mib.exe

Mentor Graphics Install - v4.1-027

IMPORTANT - USE OF THIS SOFTWARE IS SUBJECT TO LICENSE RESTRICTIONS!
CAREFULLY READ THIS LICENSE AGREEMENT BEFORE USING THE SOFTWA
ARE.

The following options are available:
[D] isplay the entire license agreement to the screen
[P] age through license agreement
e[X] it the installer

What would you like to do? >
```

8、输入 d, 按 Enter; 输入 yes, 按 Enter, 进入 calibre2019 的安装。

```
root@localhost:/opt/eda/mentor
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)

Do you agree to be bound by the terms of this license. (yes/no)>yes

Installation in progress ... Please Wait
0% -10% -20% -30% -40% -50% -60% -70% -80% -90% -100%
|||||
Successfully installed Mentor Graphics Install to: /opt/eda/mentor/install.ixl

Invoking Mentor Graphics Install to install bundle
Using Java version 1.6.0

INFORMATION ONLY:
Message: Running Install in quick batch mode.

Installation in progress ... Please Wait
0% -10% -20% -30% -40% -50% -60% -70% -80% -90% -100%
|||
```

9、几分钟后完成了 calibre2019 的安装。

```
root@localhost:/opt/eda/mentor
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)

Installation in progress ... Please Wait
0% -10% -20% -30% -40% -50% -60% -70% -80% -90% -100%
|||||
Successfully installed Mentor Graphics Install to: /opt/eda/mentor/install.ixl

Invoking Mentor Graphics Install to install bundle
Using Java version 1.6.0

INFORMATION ONLY:
Message: Running Install in quick batch mode.

Installation in progress ... Please Wait
0% -10% -20% -30% -40% -50% -60% -70% -80% -90% -100%
|||||
Installation Completed. Installed to: /opt/eda/mentor

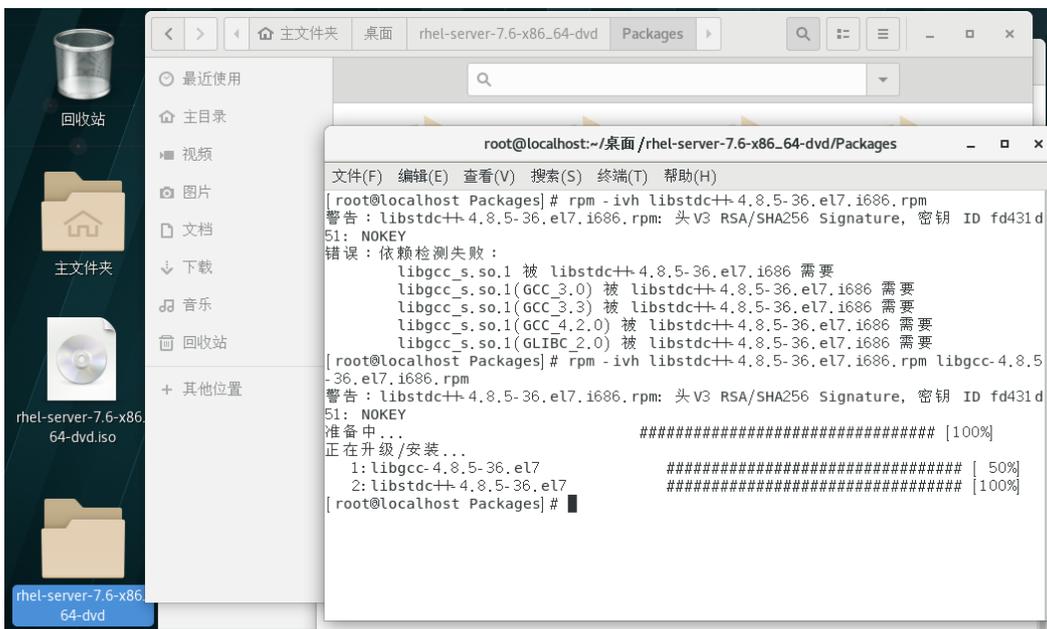
INFORMATION ONLY:
Message: End of Installation. The products were installed at /opt/eda/mentor
[root@localhost mentor] #
```

Patch

1、进入/opt/eda/cadence/patch 目录，打开终端，输入./1patch.sh ../IC618/，按 Enter，提示缺少 libstdc++.so.6。

```
root@localhost:~/opt/eda/cadence/patch
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)
[root@localhost patch]# ./1patch.sh ../IC618/
Start self extract...
Running...
./ocad/selfext/sfk: error while loading shared libraries: libstdc++.so.6: cannot
open shared object file: No such file or directory
Finished.
[root@localhost patch]#
```

2、进入 Packages 文件夹，右键打开终端，输入 rpm -ivh libstdc++-4.8.5-36.el7.i686.rpm libgcc-4.8.5-36.el7.i686.rpm，按 Enter，完成相应库的安装。



3、回到进行 patch 的终端，再次输入./1patch.sh ../IC618/，按 Enter，进行 IC618 的 patch。

```
root@localhost:~/opt/eda/cadence/patch
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)
warn : empty file: ../IC618/tools.lnx86/perl/lib/site_perl/5.8.8/x86_64-linux-th
read-multi/auto/Compress/Raw/Zlib/Zlib.bs - skipping
warn : empty file: ../IC618/tools.lnx86/perl/lib/site_perl/5.8.8/x86_64-linux-th
read-multi/auto/HTML/Parser/Parser.bs - skipping
warn : empty file: ../IC618/tools.lnx86/perl/lib/site_perl/5.8.8/x86_64-lin
ux-thread-multi/auto/XML/Parser/Expat/Expat.bs - skipping
77% ..warn : empty file: ../IC618/share/cdssetup/dfII/workspaces/SkillIDE/SkillI
DE.init - skipping
warn : empty file: ../IC618/share/cdssetup/dfII/workspaces/SkillIDE/Coding.ini
t - skipping
warn : empty file: ../IC618/share/cdssetup/dfII/workspaces/SkillIDE/Debugging.in
it - skipping
warn : empty file: ../IC618/share/cdssetup/dfII/workspaces/SkillIDE/Checking.ini
t - skipping
warn : empty file: ../IC618/share/cdssetup/dfII/workspaces/SkillIDE/SKILL++.ini
t - skipping
warn : empty fi
le: ../IC618/share/cdssetup/lman/ImportDML.panel - skipping
[001/1/2] ../IC618/share/oa/lib/linux_rhel60_64/opt/libcmExport.so
[001/1/2] ../IC618/share/oa/lib/linux_rhel60_64/opt/libcmTracking.so
111599 files checked, 381 changed.
300 warnings occurred.
Finished.
[root@localhost patch]#
```

4、继续在终端中输入./1patch.sh ../SPECTRE181/，按 Enter，进行 SPECTRE 的 patch。

```

root@localhost:/opt/eda/cadence/patch
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)
[001/1/2] ../SPECTRE181/tools.lnx86/spectre/bin/64bit/spectre
[001/1/2] ../SPECTRE181/tools.lnx86/spectre/bin/64bit/spectre_encrypt
[001/1/2] ../SPECTRE181/tools.lnx86/spectre/bin/64bit/cmiGet
[001/1/2] ../SPECTRE181/tools.lnx86/spectre/bin/64bit/spectre_fsrrpt
[001/1/2] ../SPECTRE181/tools.lnx86/spectre/bin/64bit/spectre_ddmrpt
[001/1/2] ../SPECTRE181/tools.lnx86/sev/bin/64bit/vpsbatch
[001/1/2] ../SPECTRE181/tools.lnx86/sev/bin/64bit/vsaplot
[001/1/2] ../SPECTRE181/tools.lnx86/rexpert/bin/64bit/postbert
[001/1/2] ../SPECTRE181/tools.lnx86/rexpert/bin/64bit/prebert
[001/1/2] ../SPECTRE181/tools.lnx86/rexpert/bin/64bit/prebert2
[001/1/2] ../SPECTRE181/tools.lnx86/rexpert/bin/64bit/relExt
[001/1/2] ../SPECTRE181/tools.lnx86/rexpert/lib/64bit/libstress_sh.so
[001/1/2] ../SPECTRE181/tools.lnx86/rexpert/lib/64bit/librelaging_sh.so
[001/1/2] ../SPECTRE181/tools.lnx86/rexpert/lib/64bit/libprestress_sh.so
[001/1/2] ../SPECTRE181/tools.lnx86/rexpert/lib/64bit/libage_inst_param_sh.so
warn : empty file: ../SPECTRE181/tools.lnx86/cdspython/mmsim/__init__.py - skipping
[001/1/2] ../SPECTRE181/tools.lnx86/SpeedXP/bin/broadbandspice.exe
[001/1/2] ../share/oa/lib/linux_rhel50_gcc48x_64/opt/libcmExport.so
[001/1/2] ../share/oa/lib/linux_rhel50_gcc48x_64/opt/libcmTracking.so
39386 files checked, 66 changed.
756 warnings occurred.
Finished.
[root@localhost patch] #

```

5、继续在终端中输入 `./1patch.sh /opt/eda/mentor/calibre2019/`，按 Enter，进行 calibre 的 patch。

```

root@localhost:/opt/eda/cadence/patch
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)
y - skipping
warn : empty file: /opt/eda/mentor/calibre2019/aoj_cal_2019.3_15.11/pkgs/icv_pyth
hon.aoj/asp/lib/python3.6/site-packages/oslo_serialization/__init__.py - skippin
g
warn : empty file: /opt/eda/mentor/calibre2019/aoj_cal_2019.3_15.11/pkgs/icv_pyth
hon.aoj/asp/lib/python3.6/site-packages/virtualenv_support/__init__.py - skippin
g
90warn : empty file: /opt/eda/mentor/calibre2019/aoj_cal_2019.3_15.11/shared/pkg
s/icv.aoj/systest_data/calibre.db/pex/pexsvdb/testcell.pdb/PDB_closed - skipping
warn : empty file: /opt/eda/mentor/calibre2019/aoj_cal_2019.3_15.11/shared/pkgs/
icv.aoj/systest_data/calibre.db/pex/pexsvdb/testcell.pdb/PDB_opened - skipping
warn : empty file: /opt/eda/
mentor/calibre2019/aoj_cal_2019.3_15.11/tmp/sssd_is_running - skipping
[001/1/2] /opt/eda/mentor/calibre2019/install.ixl/bin/libtblf.so
[001/1/2] /opt/eda/mentor/calibre2019/install.ixl/bin/mgls_async
[001/1/2] /opt/eda/mentor/calibre2019/install.ixl/bin/get_feats
66% /opt/eda/mentor/calwarn : empty file: /opt/eda/mentor/calibre2019/install.ix
l/JRE/.systemPrefs/.systemRootModFile - skipping
warn : empty file: /opt/eda/mentor/calibre2019/install.ixl/JRE/.systemPrefs/.sys
tem.lock - skipping
69441 files checked, 5 changed.
1019 warnings occurred.
Finished.
[root@localhost patch] #

```

6、继续在终端输入 `python cdslicgen.py`，产生 IC618 的 license，将产生的 license.dat 复制到 `/opt/eda/cadence/license` 目录下。

```

root@localhost:/opt/eda/cadence/patch
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)
[root@localhost patch] # python cdslicgen.py
Successfully generate cds license file.
[root@localhost patch] #

```

7、在终端输入 `ifconfig`，查看 mac 地址，ens33 下面 ether 后面的 `00:0c:29:65:15:7f` 即为 mac 地址；继续输入 `python mgcligen.py 00:0c:29:65:15:7f`，产生 calibre 的 license，将产生的 license.dat 复制到 `/opt/eda/mentor/license` 目录下。

```
root@localhost:/opt/eda/cadence/patch
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)
Successfully generate cds license file.
[root@localhost patch]# ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    ether 00:0c:29:65:15:7f txqueuelen 1000 (Ethernet)
    RX packets 1995 bytes 123422 (120.5 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 1184 bytes 102048 (99.6 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1184 bytes 102048 (99.6 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

virbr0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    inet 192.168.122.1 netmask 255.255.255.0 broadcast 192.168.122.255
    ether 52:54:00:58:88:2d txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@localhost patch]# python mgclicgen.py 00:0c:29:65:15:7f
Successfully generate mgccal license file, license will timeout at 21-Mar 2049
[root@localhost patch]# █
```

8、修改系统主机名为 eda。进入/etc 目录，打开 hosts 文件，在末尾添加一行“127.0.0.1 eda”，如下图所示；打开 hostname 文件，添加“eda”主机名，如下图所示；进入 /etc/sysconfig 目录，打开 network 文件，添加“HOSTNAME=eda”，如下图所示。

```
hosts
/etc
保存(S)
127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4
::1 localhost localhost.localdomain localhost6 localhost6.localdomain6
127.0.0.1 eda|
```

```
hostname
/etc
保存(S)
eda|
```

```
network
/etc/sysconfig
保存(S)
# Created by anaconda
HOSTNAME=eda|
```

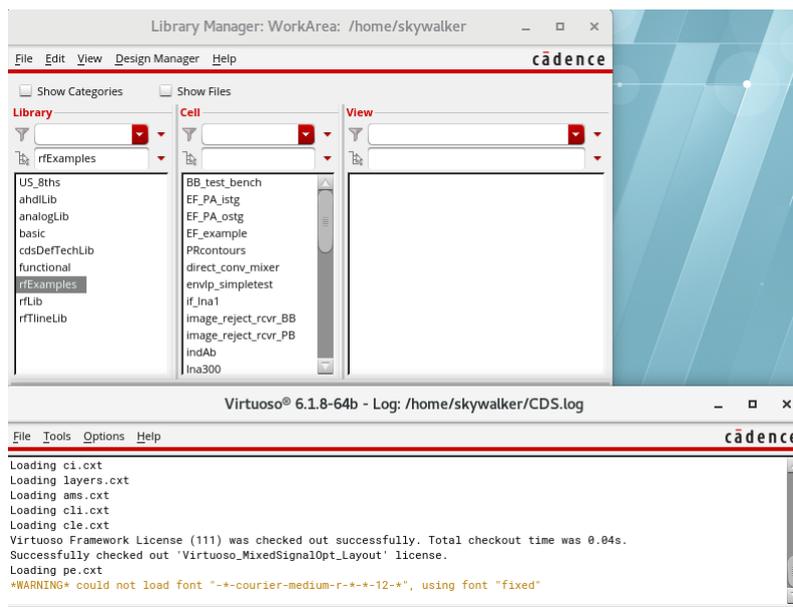
运行 IC618、calibre2019

- 1、切换到个人账户进入系统，将/opt/eda/cadence/patch 目录下的.cshrc 复制到个人目录/home/skywalker 下，.cshrc 是隐藏文件，按 CTRL+h 可以显示隐藏文件。
- 2、在个人目录下打开终端，输入 su 按 Enter，输入 root 用户密码，临时切换到 root 账户；继续输入 usermod -s /bin/csh skywalker，将个人用户的 shell 改为 csh。因为环境变量采用 csh 设置，所以要将默认的 bash 改成 csh；如果采用 bash 设置环境变量，则不需要更改 shell。

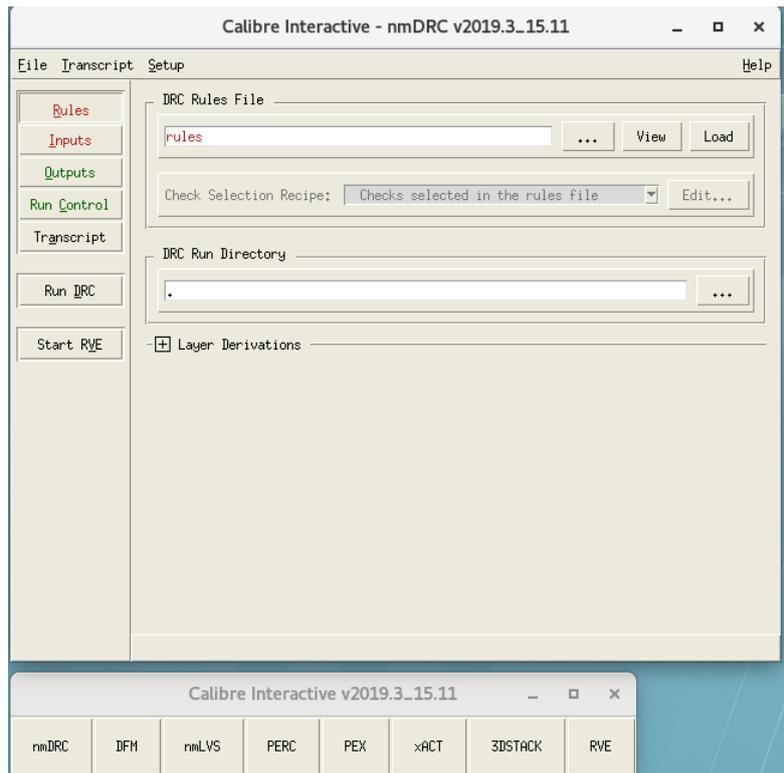


```
skywalker@localhost:~  
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)  
[skywalker@localhost ~]$ su  
密码：  
[root@localhost skywalker]# usermod -s /bin/csh skywalker  
[root@localhost skywalker]# su skywalker  
[skywalker@localhost ~]$
```

- 3、在个人目录/home/skywalker 打开终端，输入 source .cshrc，加载环境变量；再输入 virtuoso 启动 IC618。



- 4、在个人目录/home/skywalker 打开终端，输入 source .cshrc，加载环境变量；再输入 calibre -gui 启动 calibre。



IC618、SPECTRE181、CALIBRE2019 软件安装包、patch 工具都由 eetop 论坛上的 open-CAD 用户提供给我，感谢他的无私分享。现我将所有软件安装包和个人安装教程上传到百度网盘；由于百度网盘下载比较慢，链接里面还有一个破解百度网盘限速的教程以及 IDM 下载工具。

链接：<https://pan.baidu.com/s/1VJIAUuL21Jf6agANO7Pcsw&shfl=sharepset>

提取码：52I3

祝大家学习愉快！

Leo_yang

2019/10/18