

# 环境搭建

## 离线语音环境搭建

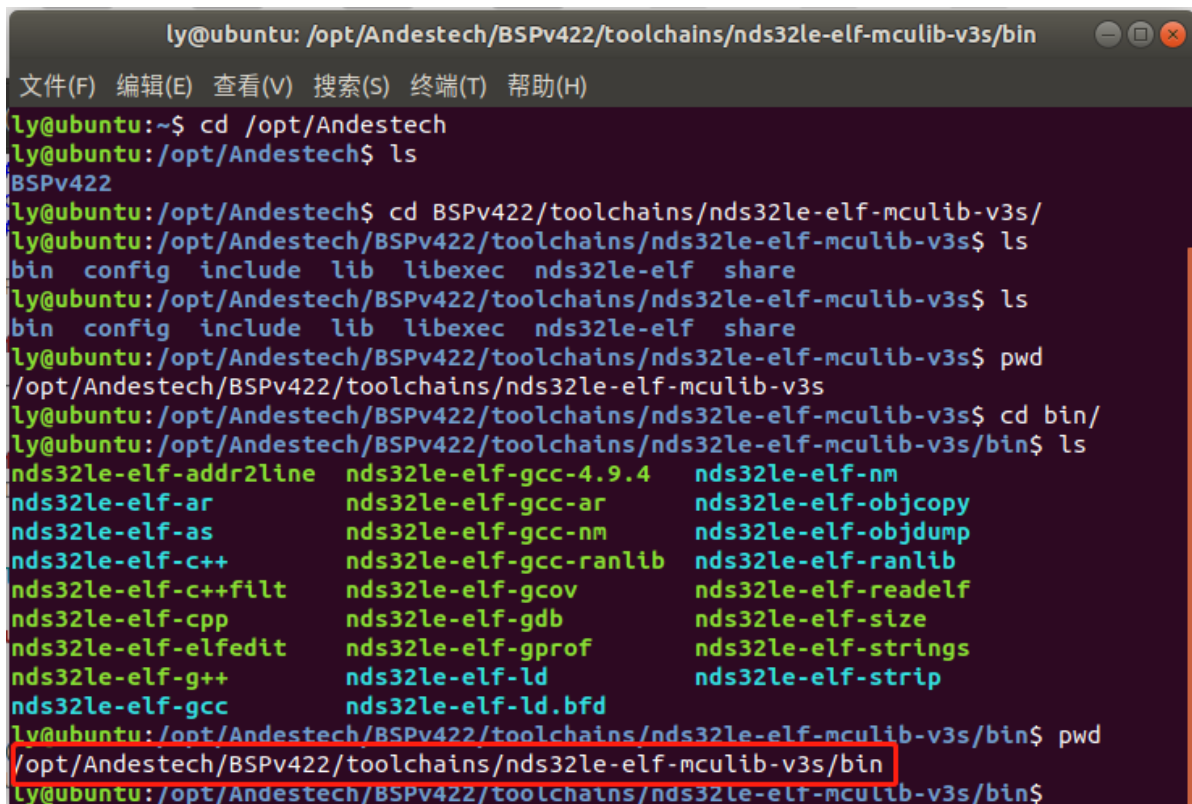
### 1. 下载编译工具

推荐使用Ubuntu 16.04 / centos7以上版本作为开发环境。

交叉编译工具下载地址：链接：[https://pan.baidu.com/s/1EHa10q7xkoySt5MA8\\_abew](https://pan.baidu.com/s/1EHa10q7xkoySt5MA8_abew)

提取码：cdbx

下载交叉编译工具并解压到开发环境“/opt”路径中,仔细核对路径：



```
ly@ubuntu: /opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s/bin
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)
ly@ubuntu:~$ cd /opt/Andestech
ly@ubuntu:/opt/Andestech$ ls
BSPv422
ly@ubuntu:/opt/Andestech$ cd BSPv422/toolchains/nds32le-elf-mculib-v3s/
ly@ubuntu:/opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s$ ls
bin config include lib libexec nds32le-elf share
ly@ubuntu:/opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s$ ls
bin config include lib libexec nds32le-elf share
ly@ubuntu:/opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s$ pwd
/opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s
ly@ubuntu:/opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s$ cd bin/
ly@ubuntu:/opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s/bin$ ls
nds32le-elf-addr2line  nds32le-elf-gcc-4.9.4  nds32le-elf-nm
nds32le-elf-ar         nds32le-elf-gcc-ar    nds32le-elf-objcopy
nds32le-elf-as        nds32le-elf-gcc-nm   nds32le-elf-objdump
nds32le-elf-c++       nds32le-elf-gcc-ranlib nds32le-elf-ranlib
nds32le-elf-c++filt   nds32le-elf-gcov     nds32le-elf-readelf
nds32le-elf-cpp       nds32le-elf-gdb      nds32le-elf-size
nds32le-elf-elfedit   nds32le-elf-gprof    nds32le-elf-strings
nds32le-elf-g++       nds32le-elf-ld       nds32le-elf-strip
nds32le-elf-gcc       nds32le-elf-ld.bfd
ly@ubuntu:/opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s/bin$ pwd
/opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s/bin
ly@ubuntu:/opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s/bin$
```

### 2. 添加环境变量

修改/etc/profile

```
sudo vi /etc/profile
```

在该文件最后加上：

```
export PATH=$PATH:/opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s/bin
```

```
# /etc/profile: system-wide .profile file for the Bourne shell (sh(1))
# and Bourne compatible shells (bash(1), ksh(1), ash(1), ...).

if [ "${PS1-}" ]; then
  if [ "${BASH-}" ] && [ "$BASH" != "/bin/sh" ]; then
    # The file bash.bashrc already sets the default PS1.
    # PS1='\h:\w\$ '
    if [ -f /etc/bash.bashrc ]; then
      . /etc/bash.bashrc
    fi
  else
    if [ "`id -u`" -eq 0 ]; then
      PS1='# '
    else
      PS1='$ '
    fi
  fi
fi
fi

if [ -d /etc/profile.d ]; then
  for i in /etc/profile.d/*.sh; do
    if [ -r $i ]; then
      . $i
    fi
  done
unset i
fi

export PATH=$PATH:/opt/Andestech/BSPv422/toolchains/nds32le-elf-mculib-v3s/bin
```

刷新文件

```
source /etc/profile
```

### 3.安装工具

安装python环境:

```
sudo apt-get install python
```

安装lame音频处理工具:

```
sudo apt-get install lame
```

安装32位兼容库 (如果系统未安装过) :

```
sudo apt-get install lib32stdc++6 lib32z1 lib32ncurses5 lib32bz2-1.0
```

### 4.运行代码

在该目录下运行

```
./build.sh
```

