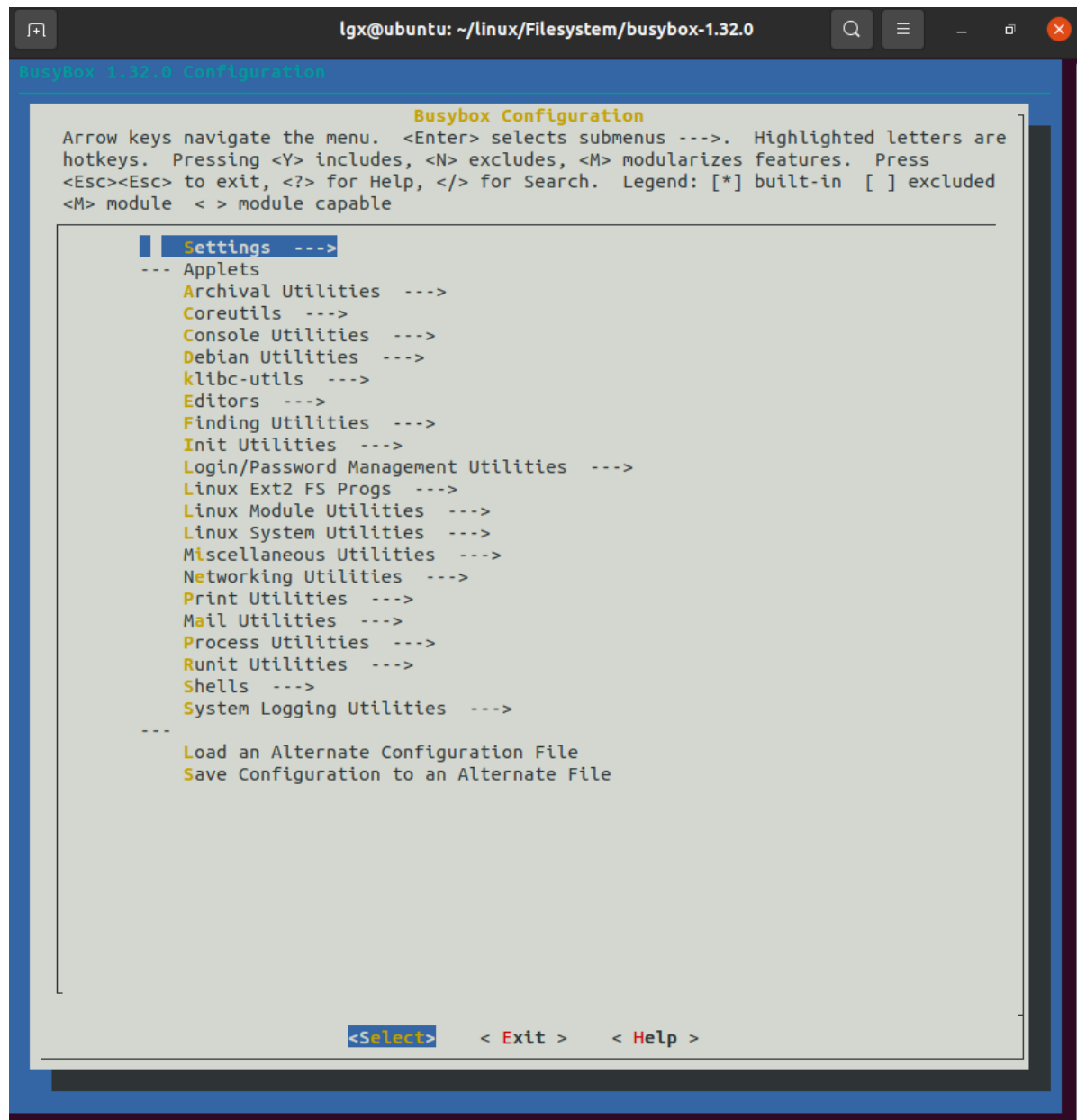
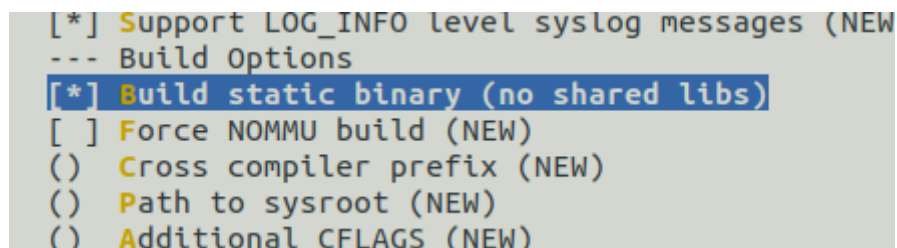


用busyBox生成一个可用的根文件系统

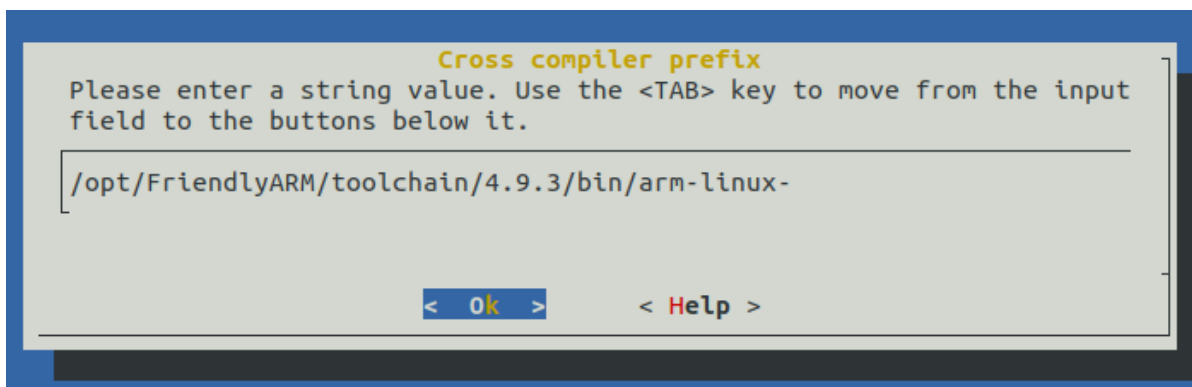
1.先使用make menuconfig，对busyBox进行设置



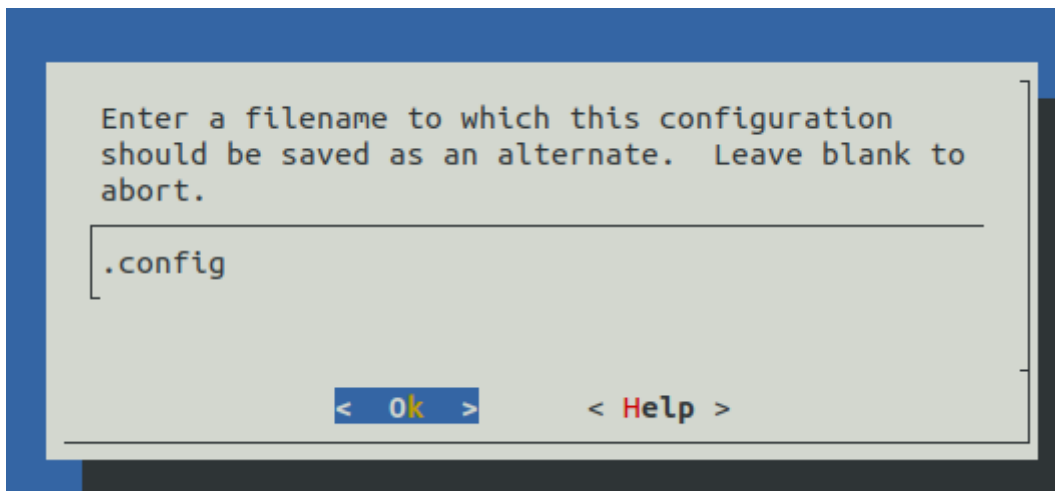
2.进入Settings，找到Build Options目录，选择Build static binary (no shared libs)



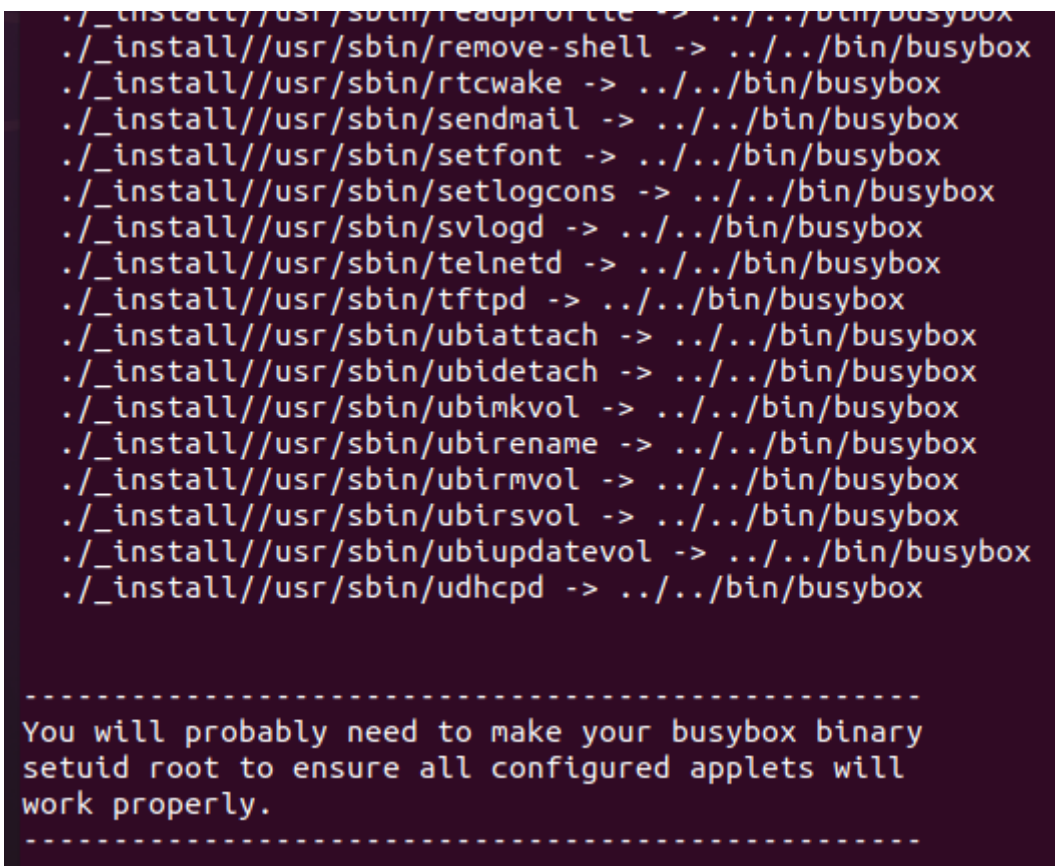
3.然后选择交叉编译cross compiler prefix，添加arm-linux-gcc的路径



4.选择默认路径_install安装，保存设置退出



5.完成设置，输入命令 make 对BusyBox进行编译



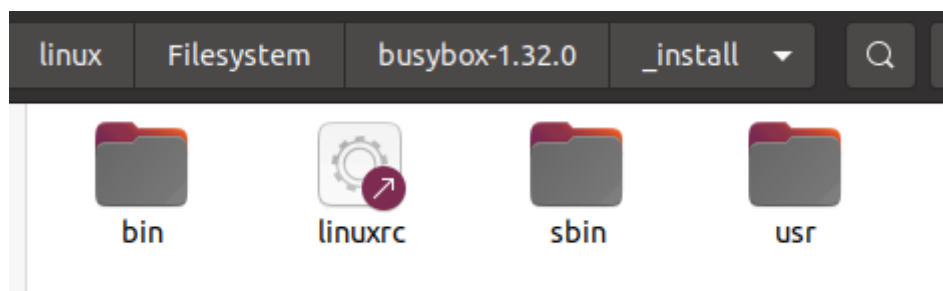
6.然后使用 make install 进行安装

```

LINK    busybox_unstripped
Static linking against glibc, can't use --gc-sections
Trying libraries: crypt m resolv rt
Library crypt is not needed, excluding it
Library m is needed, can't exclude it (yet)
Library resolv is needed, can't exclude it (yet)
Library rt is not needed, excluding it
Library m is needed, can't exclude it (yet)
Library resolv is needed, can't exclude it (yet)
Final link with: m resolv
DOC     busybox.pod
DOC     BusyBox.txt
DOC     busybox.1
DOC     BusyBox.html

```

7.编译安装完成后，生成了一个_install目录，可以看到bin,sbin和usr三个目录



8.在_install中创建etc目录，在etc内建立rci, nittab, motd三个文件，并且创建init.d目录



9.在init.d目录中，使用命令 `ln -s ../rc rcS` 创建rc文件的符号连接文件rcS

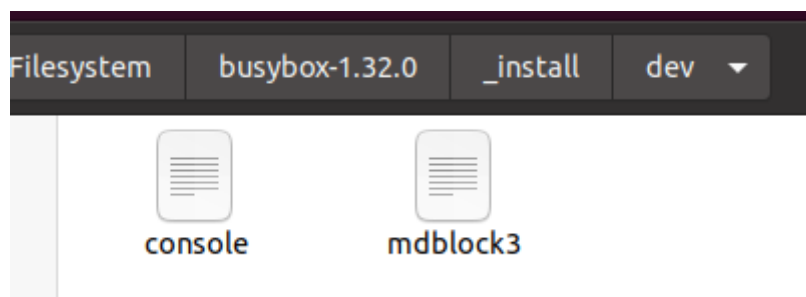


10.回到_install目录，创建dev目录，使用mknod命令进行创建设备文件

```

lgx@ubuntu:~/linux/Filesystem/busybox-1.32.0/_install/dev$ sudo mknod console c 5 1
lgx@ubuntu:~/linux/Filesystem/busybox-1.32.0/_install/dev$ sudo mknod mdblock3 b 31 3

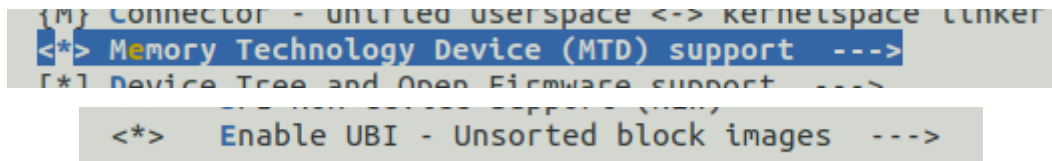
```



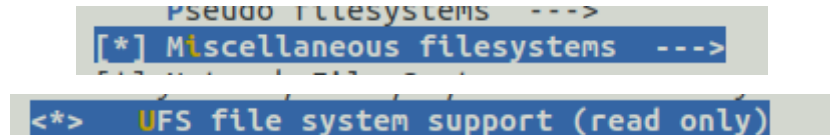
做一个Ubi文件系统

1.先使用make menuconfig, 对ubi进行设置

Device Drivers ---> Memory Technology Device (MTD) support ---> Enable UBI - Unsorted block images



File systems ---> Miscellaneous filesystems ---> UBIFS file system support

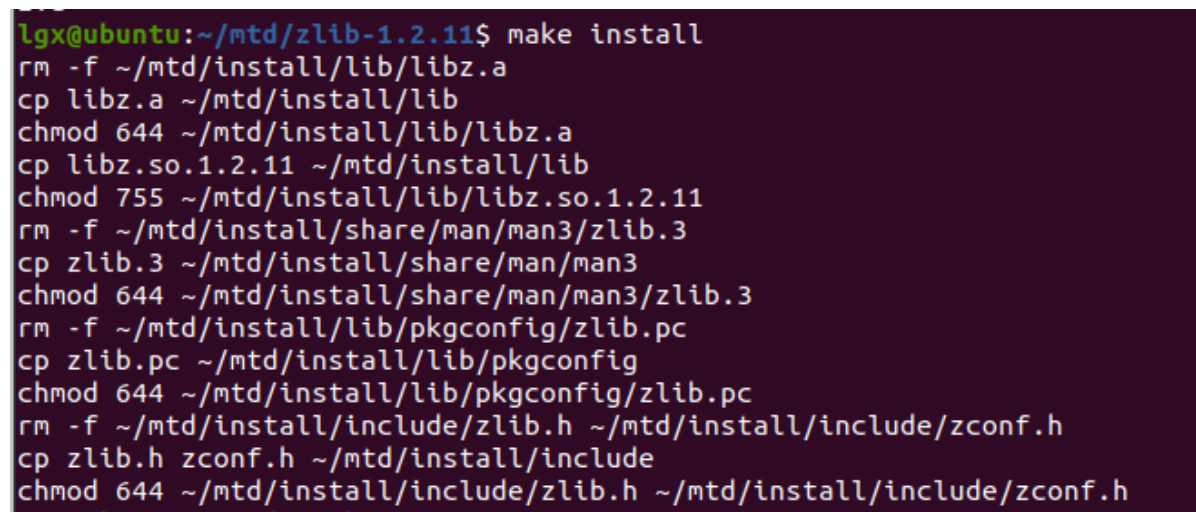


2.下载MTD Utilites和3个编译所需的依赖库: Zlib, Lzo, e2fsprogs



3.对这三个依赖库进行编译

./configure --prefix=/lgx/home/mtd/install



./configure CPPFLAGS="\$CPPFLAGS -std=c90 -fPIC" --build=i686-pc-linux --prefix=/lgx/home/mtd/install

```
lgx@ubuntu:~/mtd/lzo-2.06$ sudo make install
make[1]: Entering directory '/home/lgx/mtd/lzo-2.06'
test -z "/lgx/home/mtd/install/lib" || /usr/bin/mkdir -p "/lgx/home/mtd/install/lib"
/bin/bash ./libtool --mode=install /usr/bin/install -c src/liblzo2.la '/lgx/home/mtd/install/lib'
libtool: install: /usr/bin/install -c src/.libs/liblzo2.lai /lgx/home/mtd/install/lib/liblzo2.la
libtool: install: /usr/bin/install -c src/.libs/liblzo2.a /lgx/home/mtd/install/lib/liblzo2.a
libtool: install: chmod 644 /lgx/home/mtd/install/lib/liblzo2.a
libtool: install: ranlib /lgx/home/mtd/install/lib/liblzo2.a
libtool: finish: PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/snap/bin:/sbin" ldconfig -n /lgx/home/mtd/install/lib
-----
Libraries have been installed in:
  /lgx/home/mtd/install/lib
```

./configure --build=i686-pc-linux --prefix=/lgx/home/mtd/install

```
INSTALL_DATA /lgx/home/mtd/install/include/ext2fs/bitops.h
INSTALL_DATA /lgx/home/mtd/install/include/ext2fs/ext2fs.h
INSTALL_DATA /lgx/home/mtd/install/include/ext2fs/ext2_io.h
INSTALL_DATA /lgx/home/mtd/install/include/ext2fs/ext2_fs.h
INSTALL_DATA /lgx/home/mtd/install/include/ext2fs/ext2_ext_attr.h
INSTALL_DATA /lgx/home/mtd/install/include/ext2fs/ext3_extents.h
INSTALL_DATA /lgx/home/mtd/install/include/ext2fs/tdb.h
INSTALL_DATA /lgx/home/mtd/install/include/ext2fs/qcow2.h
INSTALL_DATA /lgx/home/mtd/install/include/ext2fs/hashmap.h
INSTALL_DATA /lgx/home/mtd/install/include/ext2fs/ext2_err.h
INSTALL_DATA /lgx/home/mtd/install/include/ext2fs/ext2_types.h
INSTALL_DATA /lgx/home/mtd/install/lib/pkgconfig/ext2fs.pc
make[2]: Leaving directory '/home/lgx/mtd/e2fsprogs-1.46.5/lib/ext2fs'
make[1]: Leaving directory '/home/lgx/mtd/e2fsprogs-1.46.5'
lgx@ubuntu:~/mtd/e2fsprogs-1.46.5$
```

进入/lib/uuid进行安装

```
lgx@ubuntu:~/mtd/e2fsprogs-1.46.5/lib/uuid$ sudo make install
[sudo] password for lgx:
MKDIR_P /lgx/home/mtd/install/lib /lgx/home/mtd/install/include/uuid /lgx/home/mtd/install/share/man/man3
INSTALL_DATA /lgx/home/mtd/install/lib/libuuid.a
INSTALL_DATA /lgx/home/mtd/install/include/uuid/uuid.h
INSTALL_DATA /lgx/home/mtd/install/share/man/man3/uuid.3
INSTALL_DATA /lgx/home/mtd/install/share/man/man3/uuid_clear.3
INSTALL_DATA /lgx/home/mtd/install/share/man/man3/uuid_compare.3
INSTALL_DATA /lgx/home/mtd/install/share/man/man3/uuid_copy.3
INSTALL_DATA /lgx/home/mtd/install/share/man/man3/uuid_generate.3
INSTALL_DATA /lgx/home/mtd/install/share/man/man3/uuid_is_null.3
INSTALL_DATA /lgx/home/mtd/install/share/man/man3/uuid_parse.3
INSTALL_DATA /lgx/home/mtd/install/share/man/man3/uuid_time.3
INSTALL_DATA /lgx/home/mtd/install/share/man/man3/uuid_unparse.3
LINK /lgx/home/mtd/install/share/man/man3/uuid_generate_random.3
LINK /lgx/home/mtd/install/share/man/man3/uuid_generate_time.3
INSTALL_DATA /lgx/home/mtd/install/lib/pkgconfig/uuid.pc
```

4.然后对mtd-utils进行编译，编译失败