

# Build U-Boot, Filesystem, Linux for A33

(OneQuickshare Board)

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# Files

U-Boot : u-boot-2016.-rc2-i4vine.tar.gz

Kernel : linux-4.9-i4vine-a33-ports-210215.tar.gz

Filesystem : buildroot-2017.11.1.tar.gz

Toolchain :

- 1) u-boot : arm-eabi-4.6.tar.gz

# Setup Build Environment

USER\_ID : ryu (modify your id)

1. Make build directory (Run following command)

```
> cd /home/USER_ID
```

```
> mkdir -p workspace/onequickshare
```

```
> cd workspace/onequickshare
```

```
> mkdir out_uboot
```

```
> mkdir out_kernel
```

```
> mkdir out_filesystem
```

2. Copy files to oneshare directory

u-boot-2016-rc2-i4vine.tar.gz, linux-4.9-i4vine-a33-ports-210215.tar.gz, buildroot-2017.11.1.tar.gz

arm-eabi-4.6.tar.gz

# Setup Build Environment

USER\_ID : ryu (modify your id)

## 3. Untar source files (Run following command)

```
> cd /home/USER_ID/workspace/onequickshare  
> tar -xvf arm-eabi-4.6.tar.gz  
> tar -xvf buildroot-2017.11.1.tar.gz  
> mkdir u-boot-2016-rc2-i4vine  
> cd u-boot-2016-rc2-i4vine  
> tar -xvf ../u-boot-2016.03-rc2.tar.gz  
> cd ..  
> mkdir linux-4.9-i4vine  
> cd linux-4.9-i4vine  
> tar -xvf ../linux-4.9-i4vine-a33-ports-210215.tar.gz
```

# Build U-Boot

USER\_ID : ryu (modify your id)

U-BOOT\_SOURCE\_PATH : /home/USER\_ID/workspace/onequickshare/u-boot-2016-rc2-i4vine

U-BOOT\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_uboot

## 1. Build (Run following command)

```
> export PATH=/home/USER_ID/workspace/onequickshare/arm-eabi-4.6/bin/:$PATH
```

```
> export ARCH=arm CROSS_COMPILE=arm-eabi-
```

```
> cd /home/USER_ID/workspace/onequickshare/u-boot-2016-rc2-i4vine
```

```
> make O=../out_uboot r16-i4vine_defconfig
```

```
> make O=../out_uboot
```

## 2. Output files

```
> U-BOOT_OUTPUT_PATH
```

# Build Filesystem

USER\_ID : ryu (modify your id)

FILESYSTEM\_SOURCE\_PATH : /home/USER\_ID/workspace/onequickshare/buildroot-2017.11.1

FILESYSTEM\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_filesystem

## 1. Build (Run following command)

```
> cd /home/USER_ID/workspace/onequickshare/buildroot-2017.11.1
```

```
> make O=./out_filesystem
```

## 2. Output files

```
> FILESYSTEM_OUTPUT_PATH
```

# Build Filesystem

USER\_ID : ryu (modify your id)

FILESYSTEM\_SOURCE\_PATH : /home/USER\_ID/workspace/onequickshare/buildroot-2017.11.1

FILESYSTEM\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_filesystem

3. Build wpa\_supplicant, wpa\_passphrase, udhcpc, kmod (Run following command)

> cd /home/USER\_ID/workspace/onequickshare/buildroot-2017.11.1

> make O=./out\_filesystem menuconfig

> Select Target\_packages & enter

```
Target options --->
Build options --->
Toolchain --->
System configuration --->
Kernel --->
Target packages --->
Filesystem images --->
Bootloaders --->
Host utilities --->
Legacy config options --->
```



# Build Filesystem

3. Build wpa\_supplicant, wpa\_passphrase, udhcpc, kmod (Run following command)

> Select “Show package...” & spacebar

> Select Networking application & enter

```
-- BusyBox
(package/busybox/busybox.config) BusyBox configuration file
() Additional BusyBox configuration fragment files
[*] Show packages that are also provided by busybox
[ ] Enable SELinux support
[ ] Individual binaries
[ ] Install the watchdog daemon startup script
Audio and video applications --->
Compressors and decompressors --->
Debugging, profiling and benchmark --->
Development tools --->
Filesystem and flash utilities --->
Fonts, cursors, icons, sounds and themes --->
Games --->
Graphic libraries and applications (graphic/text) --->
Hardware handling --->
Interpreter languages and scripting --->
Libraries --->
Mail --->
Miscellaneous --->
Networking applications --->
Package managers --->
```

- > Select dhcp & spacebar
- > Select dhcp client & spacebar

- > Select wpa\_supplicant & spacebar
- > Select Install wpa\_passphrase binary & spacebar
- > Select Exit & enter

```
[ ] wireshark
[*] wpa_supplicant
[*]   Enable nl80211 support (NEW)
[ ]   Enable AP mode (NEW)
[ ]   Enable autoscan (NEW)
[ ]   Enable EAP (NEW)
[ ]   Enable HS20 (NEW)
[ ]   Enable syslog support (NEW)
[ ]   Enable WPS (NEW)
[ ]   Install wpa_cli binary (NEW)
[ ]   Install wpa_client shared library (NEW)
[*] Install wpa_passphrase binary
[ ] wpan-tools
[ ] xinetd
```

```

aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
<Select>    < Exit >    < Help >    < Save

```

# Build Filesystem

### 3. Build wpa\_supplicant, wpa\_passphrase, udhcpc, kmod (Run following command)

> Select System tools & enter

```
Miscellaneous --->
Networking applications --->
Package managers --->
Real-Time --->
Security --->
Shell and utilities --->
System tools --->
Text editors and viewers --->
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
<Select> < Exit > < Help >
```

> Select kmod & spacebar

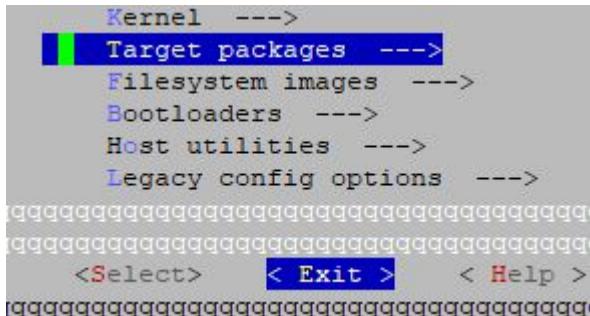
> Select kmod utilities & spacebar

> Select Exit & enter

```
[ ] keyutils  
[*] kmod  
[*] kmod utilities  
[ ] kvmtool
```

<Select> < Exit >

> Select Exit & enter





# Build Kernel

USER\_ID : ryu (modify your id)

KERNEL\_SOURCE\_PATH : /home/USER\_ID/workspace/onequickshare/linux-4.9-i4vine

KERNEL\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_kernel

## 1. Build (Run following command)

```
> export PATH=FILESYSTEM_OUTPUT_PATH/host/bin/:$PATH
```

```
> export ARCH=arm CROSS_COMPILE=arm-buildroot-linux-gnueabihf-
```

```
> cd /home/USER_ID/workspace/onequickshare/linux-4.9-i4vine
```

```
> make O=../out_kernel r16_i4vine_defconfig
```

```
> make O=../out_kernel all
```

## 2. Output files

```
> KERNEL_OUTPUT_PATH
```

# Make boot.img, root.img

USER\_ID : ryu (modify your id)

KERNEL\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_kernel

FILESYSTEM\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_filesystem

3. Find unused loop device (Run following command)

> ls /dev/loop\*

```
ryu@Ada:~/workspace/onequickshare/test$ ls /dev/loop*  
/dev/loop0  /dev/loop2  /dev/loop4  /dev/loop6  /dev/loop-control  
/dev/loop1  /dev/loop3  /dev/loop5  /dev/loop7
```

> sudo losetup -a

```
ryu@Ada:~/workspace/onequickshare/test$ sudo losetup -a  
/dev/loop3: [fc04]:98400848 (/home/ksw/files/oqs_1015_update/win.img), offset 1048576  
/dev/loop4: [fc04]:98400957 (/home/ksw/files/oqs_1015_update/mac.img), offset 1048576
```

> I can use /dev/loop0-2 and /dev/loop5-7

# Make boot.img, root.img

USER\_ID : ryu (modify your id)

KERNEL\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_kernel

FILESYSTEM\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_filesystem

1. Make boot.img, root.img (Run following command)

```
> cd /home/USER_ID/workspace/onequickshare
```

```
> dd if=/dev/zero bs=1M count=512 | tr "\000" "\377" > root.img
```

```
> dd if=/dev/zero bs=1M count=16 | tr "\000" "\377" > boot.img
```



# Make boot.img, root.img

USER\_ID : ryu (modify your id)

KERNEL\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_kernel

FILESYSTEM\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_filesystem

3. Make boot.img, root.img (Run following command)

> sudo losetup /dev/loop0 boot.img

> sudo losetup /dev/loop1 root.img

> mkfs.ext3 /home/USER\_ID/workspace/onequickshare/boot.img

> mkfs.ext3 /home/USER\_ID/workspace/onequickshare/root.img

# Make boot.img, root.img

USER\_ID : ryu (modify your id)

KERNEL\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_kernel

FILESYSTEM\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_filesystem

## 4. Make boot.img (Run following command)

```
> mkdir /home/USER_ID/workspace/onequickshare/mnt
```

```
> sudo mount -o loop /dev/loop0 mnt
```

```
> cd mnt
```

```
> cp /home/USER_ID/workspace/onequickshare/out_kernel/arch/arm/boot/zImage .
```

```
> cp /home/USER_ID/workspace/onequickshare/out_kernel/arch/arm/boot/dts/sun8i-r16-i4vine.dtb .
```

```
> cd ..
```

```
> sudo umount mnt
```

```
> rm -r mnt
```

```
> sudo losetup -d /dev/loop0
```

# Make boot.img, root.img

USER\_ID : ryu (modify your id)

KERNEL\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_kernel

FILESYSTEM\_OUTPUT\_PATH : /home/USER\_ID/workspace/onequickshare/out\_filesystem

5. Make root.img (Run following command)

```
> mkdir /home/USER_ID/workspace/onequickshare/mnt
```

```
> sudo mount -o loop /dev/loop1 mnt
```

```
> cd mnt
```

```
> sudo tar -xvf /home/USER_ID/workspace/onequickshare/out_filesystem/images/rootfs.tar
```

```
> cd ..
```

```
> sudo umount mnt
```

```
> rm -r mnt
```

```
> sudo losetup -d /dev/loop1
```

# Build Error (Ubuntu 18.04)

if you build filesystem on Ubuntu 18.04, you will get some error messages.

```
./misc/create_inode.c:176:16: warning: implicit declaration of function 'lgetxattr'; did you mean 'getdate_r'? [-Wimplicit-function-declaration]
    value_size = lgetxattr(filename, name, NULL, 0);
                   ^~~~~~
                   getdate_r
./misc/create_inode.c: At top level:
./misc/create_inode.c:399:18: error: conflicting types for 'copy_file_range'
static errcode_t copy_file_range(ext2_filsys fs, int fd, ext2_file_t e2_file,
                   ^~~~~~
In file included from ./misc/create_inode.c:19:0:
/usr/include/unistd.h:1110:9: note: previous declaration of 'copy_file_range' was here
ssize_t copy_file_range(int __infd, __off64_t * __pinoff,
                   ^~~~~~
Makefile:422: recipe for target 'create_inode.o' failed
make[4]: *** [create_inode.o] Error 1
make[4]: *** Waiting for unfinished jobs....
Makefile:404: recipe for target 'all-progs-recursive' failed
make[3]: *** [all-progs-recursive] Error 1
Makefile:339: recipe for target 'all' failed
make[2]: *** [all] Error 2
package/pkg-generic.mk:234: recipe for target '/home/ryu/workspace/out_filesystem/build/host-e2fsprogs-1.43.7/.stamp_built' failed
make[1]: *** [/home/ryu/workspace/out_filesystem/build/host-e2fsprogs-1.43.7/.stamp_built] Error 2
Makefile:79: recipe for target '_all' failed
make: *** [_all] Error 2
```

> You can solve this issue just by **commenting out** the line of **#include <unistd.h>**

> cd /home/USER\_ID/workspace/onequickshare/out\_filesystem/build/host-e2fsprogs-1.43.7/misc

# Build Error (Ubuntu 18.04)

> vi /home/USER\_ID/workspace/onequickshare/out\_filesystem/build/host-e2fsprogs-1.43.7/misc/create\_inode.c

```
/*
 * create_inode.c --- create an inode
 *
 * Copyright (C) 2014 Robert Yang <liezhi.yang@rockwell.com>
 *
 * %Begin-Header%
 * This file may be redistributed under the
 * General Public License, version 2.
 * %End-Header%
 */

#define _FILE_OFFSET_BITS      64
#define _LARGEFILE64_SOURCE    1
#define _GNU_SOURCE            1

#include "config.h"
#include <time.h>
#include <sys/types.h>
// #include <unistd.h>
#include <limits.h> /* for PATH_MAX */
#ifdef HAVE_ATTR_XATTR_H
#include <attr/xattr.h>
```

# Build Error (Ubuntu 18.04)

if you build filesystem on Ubuntu 18.04, you will get some error messages.

```
./misc/create_inode.c:176:16: warning: implicit declaration of function 'lgetxattr'; did you mean 'getdate_r'? [-Wimplicit-function-declaration]
    value_size = lgetxattr(filename, name, NULL, 0);
                   ^~~~~~
                   getdate_r
./misc/create_inode.c: At top level:
./misc/create_inode.c:399:18: error: conflicting types for 'copy_file_range'
static errcode_t copy_file_range(ext2_filsys fs, int fd, ext2_file_t e2_file,
                   ^~~~~~
In file included from ./misc/create_inode.c:19:0:
/usr/include/unistd.h:1110:9: note: previous declaration of 'copy_file_range' was here
ssize_t copy_file_range(int __infd, __off64_t * __pinoff,
                   ^~~~~~
Makefile:422: recipe for target 'create_inode.o' failed
make[4]: *** [create_inode.o] Error 1
make[4]: *** Waiting for unfinished jobs....
Makefile:404: recipe for target 'all-progs-recursive' failed
make[3]: *** [all-progs-recursive] Error 1
Makefile:339: recipe for target 'all' failed
make[2]: *** [all] Error 2
package/pkg-generic.mk:234: recipe for target '/home/ryu/workspace/out_filesystem/build/host-e2fsprogs-1.43.7/.stamp_built' failed
make[1]: *** [/home/ryu/workspace/out_filesystem/build/host-e2fsprogs-1.43.7/.stamp_built] Error 2
Makefile:79: recipe for target '_all' failed
make: *** [_all] Error 2
```

> You can solve this issue just by **commenting out** the line of **#include <unistd.h>**

> cd /home/USER\_ID/workspace/onequickshare/out\_filesystem/build/host-e2fsprogs-1.43.7/misc

# Build Error (Ubuntu 20.04)

Buildroot patch files

> 0001-m4-1.4.18-glibc-change-work-around.patch

> 0001-misc-rename-copy\_file\_range-to-copy\_file\_chunk.patch

> 0001-glibc-change-work-around.patch

> 0003-gdbus-Avoid-printing-null-strings.patch

# U-boot Build Error (Ubuntu 20.04)

(cc: not found)

```
ryu@ryu: ~/workspace/onequickshare/u-boot-2016-rc2-i4vine
.13+1-5.4 [2,222 kB]
Get:2 http://kr.archive.ubuntu.com/ubuntu focal/universe amd64 make-guile amd64 4.2.1-1
.2 [163 kB]
Fetched 2,385 kB in 11s (216 kB/s)
(Reading database ... 182819 files and directories currently installed.)
Removing make (4.2.1-1.2) ...
Selecting previously unselected package guile-2.0-libs:amd64.
(Reading database ... 182803 files and directories currently installed.)
Preparing to unpack .../guile-2.0-libs_2.0.13+1-5.4_amd64.deb ...
Unpacking guile-2.0-libs:amd64 (2.0.13+1-5.4) ...
Selecting previously unselected package make-guile.
Preparing to unpack .../make-guile_4.2.1-1.2_amd64.deb ...
Unpacking make-guile (4.2.1-1.2) ...
Setting up guile-2.0-libs:amd64 (2.0.13+1-5.4) ...
Setting up make-guile (4.2.1-1.2) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.2) ...
ryu@ryu:~/workspace/onequickshare/u-boot-2016-rc2-i4vine$ make O=../out_uboot r16-i4vin
e_defconfig
make[1]: Entering directory '/home/ryu/workspace/onequickshare/out_uboot'
HOSTCC scripts/basic/fixdep
/bin/sh: 1: cc: not found
make[2]: *** [scripts/Makefile.host:94: scripts/basic/fixdep] Error 127
make[1]: *** [/home/ryu/workspace/onequickshare/u-boot-2016-rc2-i4vine/Makefile:397: sc
ripts_basic] Error 2
make[1]: Leaving directory '/home/ryu/workspace/onequickshare/out_uboot'
make: *** [Makefile:150: sub-make] Error 2
ryu@ryu:~/workspace/onequickshare/u-boot-2016-rc2-i4vine$
```

> sudo apt install build-essential



# U-boot Build Error (Ubuntu 20.04)

(dtc is old)

```
ryu@ryu: ~/workspace/onequickshare/u-boot-2016-rc2-i4vine
CC      lib/panic.o
CC      lib/strto.o
LD      lib/built-in.o
CC      net/checksum.o
CC      net/arp.o
CC      net/bootp.o
CC      net/eth-uclass.o
CC      net/eth_common.o
CC      net/net.o
CC      net/nfs.o
CC      net/ping.o
CC      net/tftp.o
LD      net/built-in.o
LD      test/built-in.o
CC      test/dm/cmd_dm.o
LD      test/dm/built-in.o
LDS     u-boot.lds
LD      u-boot
/home/ryu/workspace/onequickshare/u-boot-2016-rc2-i4vine/scripts/dtc-version.sh: line 1
7: dtc: command not found
/home/ryu/workspace/onequickshare/u-boot-2016-rc2-i4vine/scripts/dtc-version.sh: line 1
8: dtc: command not found
*** Your dtc is too old, please upgrade to dtc 1.4 or newer
make[1]: *** [/home/ryu/workspace/onequickshare/u-boot-2016-rc2-i4vine/Makefile:1353: c
heckdtc] Error 1
make[1]: Leaving directory '/home/ryu/workspace/onequickshare/out_uboot'
make: *** [Makefile:150: sub-make] Error 2
ryu@ryu:~/workspace/onequickshare/u-boot-2016-rc2-i4vine$
```

> sudo apt install device-tree-compiler

# Buildroot Build Error (Ubuntu 20.04)

(Install ncurses)

```
ryu@ryu: ~/workspace/onequickshare/buildroot-2017.11.1
mkdir -p /home/ryu/workspace/onequickshare/out_filesystem/build/buildroot-config/
/ldialog
PKG_CONFIG_PATH="" make CC="/usr/bin/gcc" HOSTCC="/usr/bin/gcc" \
  obj=/home/ryu/workspace/onequickshare/out_filesystem/build/buildroot-config
-C support/kconfig -f Makefile.br mconf
/usr/bin/gcc -DCURSES_LOC="<curses.h>" -DLOCALE -I/home/ryu/workspace/onequicks
hare/out_filesystem/build/buildroot-config -DCONFIG_="\\" -MM *.c > /home/ryu/w
orkspace/onequickshare/out_filesystem/build/buildroot-config/.depend 2>/dev/null
|| :
/usr/bin/gcc -DCURSES_LOC="<curses.h>" -DLOCALE -I/home/ryu/workspace/onequicks
hare/out_filesystem/build/buildroot-config -DCONFIG_="\\" -c conf.c -o /home/r
yu/workspace/onequickshare/out_filesystem/build/buildroot-config/conf.o
*** Unable to find the ncurses libraries or the
*** required header files.
*** 'make menuconfig' requires the ncurses libraries.
***
*** Install ncurses (ncurses-devel) and try again.
***
make[2]: *** [Makefile:199: /home/ryu/workspace/onequickshare/out_filesystem/bui
ld/buildroot-config/docheckldialog] Error 1
make[1]: *** [Makefile:861: /home/ryu/workspace/onequickshare/out_filesystem/bui
ld/buildroot-config/mconf] Error 2
make: *** [Makefile:79: _all] Error 2
ryu@ryu:~/workspace/onequickshare/buildroot-2017.11.1$
```

> sudo apt install libncurses5-dev

# Buildroot Build Error (Ubuntu 20.04)

(Install git, python)

```
ryu@ryu: ~/workspace/onequickshare/buildroot-2017.11.1
install -m 755 ./lzip "/home/ryu/workspace/onequickshare/out_filesystem/host/bin/lzip"
rm -f "/home/ryu/workspace/onequickshare/out_filesystem/host/share/info/lzip.info"
if [ ! -d "/home/ryu/workspace/onequickshare/out_filesystem/host/share/man/man1" ] ; then install -d -m 755 "/home/ryu/workspace/onequickshare/out_filesystem/host/share/man/man1" ; fi
install -m 644 ./doc/lzip.info "/home/ryu/workspace/onequickshare/out_filesystem/host/share/info/lzip.info"
rm -f "/home/ryu/workspace/onequickshare/out_filesystem/host/share/man/man1/lzip.1"
if /bin/sh -c "install-info --version" > /dev/null 2>&1 ; then \
    install-info --info-dir="/home/ryu/workspace/onequickshare/out_filesystem/host/share/info" "/home/ryu/workspace/onequickshare/out_filesystem/host/share/info/lzip.info" ; \
fi
install -m 644 ./doc/lzip.1 "/home/ryu/workspace/onequickshare/out_filesystem/host/share/man/man1/lzip.1"
You must install 'python' on your build machine
You must install 'git' on your build machine
make[1]: *** [support/dependencies/dependencies.mk:22: core-dependencies] Error 1
make: *** [Makefile:79: _all] Error 2
ryu@ryu: ~/workspace/onequickshare/buildroot-2017.11.1$
```

> sudo apt install git

> sudo apt install python

# Buildroot Build Error (Ubuntu 20.04)

(patch m4)

```
ryu@ryu: ~/workspace/onequickshare/buildroot-2017.11.1
CC      freadahead.o
CC      fseeko.o
freadahead.c: In function 'freadahead':
fseeko.c: In function 'rpl_fseeko':
fseeko.c:110:4: error: #error "Please port gnulib fseeko.c to your platform! Look at the code in fseeko
.c, then report this to bug-gnulib."
  110 | #error "Please port gnulib fseeko.c to your platform! Look at the code in fseeko.c, then repo
rt this to bug-gnulib."
      |
freadahead.c:92:3: error: #error "Please port gnulib freadahead.c to your platform! Look at the definit
ion of fflush, fread, ungetc on your system, then report this to bug-gnulib."
   92 | #error "Please port gnulib freadahead.c to your platform! Look at the definition of fflush, fr
ead, ungetc on your system, then report this to bug-gnulib."
      |
make[5]: *** [Makefile:1915: freadahead.o] Error 1
make[5]: *** Waiting for unfinished jobs....
make[5]: *** [Makefile:1915: fseeko.o] Error 1
make[4]: *** [Makefile:1674: all] Error 2
make[3]: *** [Makefile:1572: all-recursive] Error 1
make[2]: *** [Makefile:1528: all] Error 2
make[1]: *** [package/pkg-generic.mk:237: /home/ryu/workspace/onequickshare/out_filesystem/build/host-m
4-1.4.18/.stamp_built] Error 2
make: *** [Makefile:79: _all] Error 2
ryu@ryu:~/workspace/onequickshare/buildroot-2017.11.1$
```

# Filesystem Build Error

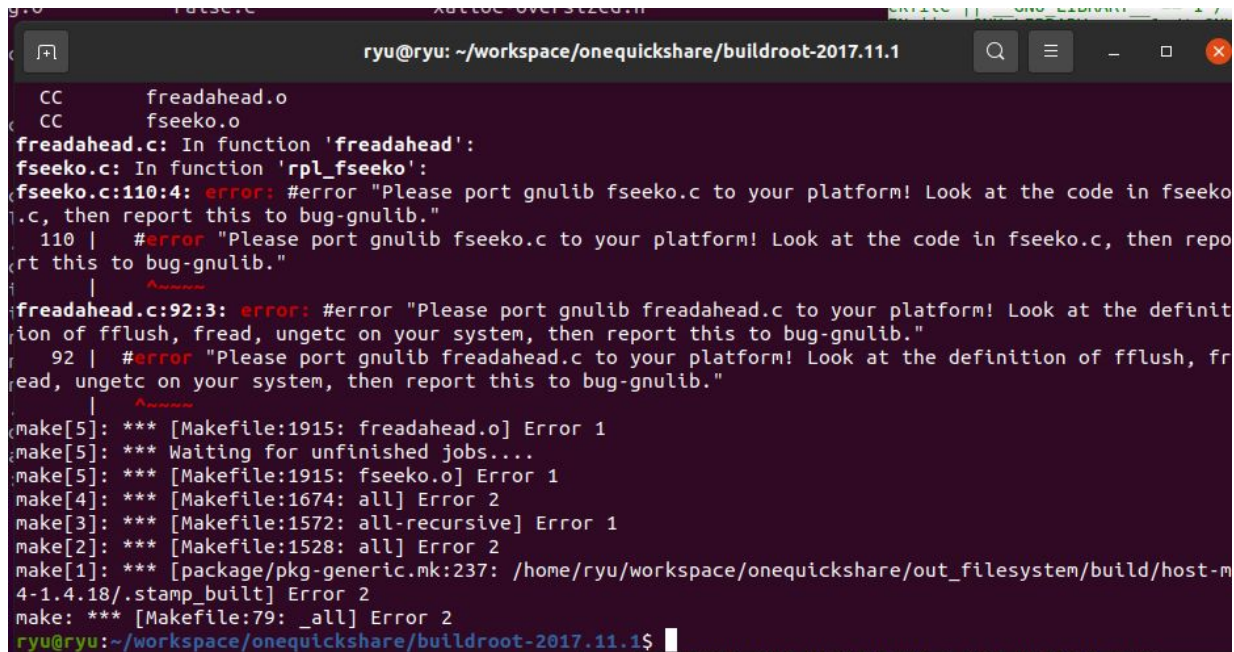
(patch e2fsprogs)

```
ryu@ryu: ~/workspace/onequickshare/buildroot-2017.11.1
CC      freadahead.o
CC      fseeko.o
freadahead.c: In function 'freadahead':
fseeko.c: In function 'rpl_fseeko':
fseeko.c:110:4: error: #error "Please port gnulib fseeko.c to your platform! Look at the code in fseeko
.c, then report this to bug-gnulib."
  110 | #error "Please port gnulib fseeko.c to your platform! Look at the code in fseeko.c, then repo
rt this to bug-gnulib."
      |
freadahead.c:92:3: error: #error "Please port gnulib freadahead.c to your platform! Look at the definit
ion of fflush, fread, ungetc on your system, then report this to bug-gnulib."
   92 | #error "Please port gnulib freadahead.c to your platform! Look at the definition of fflush, fr
ead, ungetc on your system, then report this to bug-gnulib."
      |
make[5]: *** [Makefile:1915: freadahead.o] Error 1
make[5]: *** Waiting for unfinished jobs....
make[5]: *** [Makefile:1915: fseeko.o] Error 1
make[4]: *** [Makefile:1674: all] Error 2
make[3]: *** [Makefile:1572: all-recursive] Error 1
make[2]: *** [Makefile:1528: all] Error 2
make[1]: *** [package/pkg-generic.mk:237: /home/ryu/workspace/onequickshare/out_filesystem/build/host-m
4-1.4.18/.stamp_built] Error 2
make: *** [Makefile:79: _all] Error 2
ryu@ryu:~/workspace/onequickshare/buildroot-2017.11.1$
```



# Filesystem Build Error

(patch bison)



```
ryu@ryu: ~/workspace/onequickshare/buildroot-2017.11.1
CC      freadahead.o
CC      fseeko.o
freadahead.c: In function 'freadahead':
fseeko.c: In function 'rpl_fseeko':
fseeko.c:110:4: error: #error "Please port gnulib fseeko.c to your platform! Look at the code in fseeko
.c, then report this to bug-gnulib."
  110 | #error "Please port gnulib fseeko.c to your platform! Look at the code in fseeko.c, then repo
rt this to bug-gnulib."
      |
freadahead.c:92:3: error: #error "Please port gnulib freadahead.c to your platform! Look at the definit
ion of fflush, fread, ungetc on your system, then report this to bug-gnulib."
   92 | #error "Please port gnulib freadahead.c to your platform! Look at the definition of fflush, fr
ead, ungetc on your system, then report this to bug-gnulib."
      |
make[5]: *** [Makefile:1915: freadahead.o] Error 1
make[5]: *** Waiting for unfinished jobs....
make[5]: *** [Makefile:1915: fseeko.o] Error 1
make[4]: *** [Makefile:1674: all] Error 2
make[3]: *** [Makefile:1572: all-recursive] Error 1
make[2]: *** [Makefile:1528: all] Error 2
make[1]: *** [package/pkg-generic.mk:237: /home/ryu/workspace/onequickshare/out_filesystem/build/host-m
4-1.4.18/.stamp_built] Error 2
make: *** [Makefile:79: _all] Error 2
ryu@ryu:~/workspace/onequickshare/buildroot-2017.11.1$
```

# Filesystem Build Error

(patch libglib2)

```
ryu@ryu: ~/workspace/onequickshare/buildroot-2017.11.1
CC      freadahead.o
CC      fseeko.o
freadahead.c: In function 'freadahead':
fseeko.c: In function 'rpl_fseeko':
fseeko.c:110:4: error: #error "Please port gnulib fseeko.c to your platform! Look at the code in fseeko
.c, then report this to bug-gnulib."
  110 | #error "Please port gnulib fseeko.c to your platform! Look at the code in fseeko.c, then repo
rt this to bug-gnulib."
      |
freadahead.c:92:3: error: #error "Please port gnulib freadahead.c to your platform! Look at the definit
ion of fflush, fread, ungetc on your system, then report this to bug-gnulib."
   92 | #error "Please port gnulib freadahead.c to your platform! Look at the definition of fflush, fr
ead, ungetc on your system, then report this to bug-gnulib."
      |
make[5]: *** [Makefile:1915: freadahead.o] Error 1
make[5]: *** Waiting for unfinished jobs....
make[5]: *** [Makefile:1915: fseeko.o] Error 1
make[4]: *** [Makefile:1674: all] Error 2
make[3]: *** [Makefile:1572: all-recursive] Error 1
make[2]: *** [Makefile:1528: all] Error 2
make[1]: *** [package/pkg-generic.mk:237: /home/ryu/workspace/onequickshare/out_filesystem/build/host-m
4-1.4.18/.stamp_built] Error 2
make: *** [Makefile:79: _all] Error 2
ryu@ryu:~/workspace/onequickshare/buildroot-2017.11.1$
```

# Patch files to solve filesystem build error

USER\_ID : ryu (modify your id)

FILESYSTEM\_SOURCE\_PATH : /home/USER\_ID/workspace/onequickshare/buildroot-2017.11.1

## 1. Copy files to FILESYSTEM\_SOURCE\_PATH directory

```
> cp 0001-m4-1.4.18-glibc-change-work-around.patch FILESYSTEM_SOURCE_PATH/package/m4
```

```
> cp 0001-misc-rename-copy_file_range-to-copy_file_chunk.patch \  
    FILESYSTEM_SOURCE_PATH/package/e2fsprogs
```

```
> cp 0001-glibc-change-work-around.patch FILESYSTEM_SOURCE_PATH/package/bison
```

```
> cp 0003-gdbus-Avoid-printing-null-strings.patch FILESYSTEM_SOURCE_PATH/package/libglib2
```

## 2. Build Filesystem

```
> cd FILESYSTEM_SOURCE_PATH
```

```
> make O=../out_filesystem clean
```

```
> make O=../out_filesystem
```