

Alpine Linux - Bug #6668

Can't boot on Raspberry Pi 2

01/10/2017 08:08 PM - Thibault Meyer

Status:	Closed	Start date:	01/10/2017
Priority:	High	Due date:	
Assignee:	Timo Teräs	% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:	3.6.1	Security IDs:	
Affected versions:	3.5.0		
Description			
Hi,			
I just get a Raspberry Pi 2 and try to run Alpine Linux 3.5 (alpine-rpi-3.5.0-armhf.tar.gz) on a Class 10 Micro SD Card. But my raspberry Pi 2 won't boot.			
With <code>disable_splash</code> set to 0, I only get a rainbow screen. The red led on is on and the green led blink slowly.			
Thanks			

Associated revisions

Revision 9c088d86 - 05/30/2017 08:03 AM - Timo Teräs

main/linux-rpi: update configs

fix rpi2 kernel config for armv7, ref #6668

Revision ef5fef4f - 05/30/2017 08:10 AM - Timo Teräs

main/linux-rpi: update configs

fix rpi2 kernel config for armv7, ref #6668

History

#1 - 01/11/2017 09:00 AM - Thibault Meyer

It seems that the downloadable archive (alpine-rpi-3.5.0-armhf.tar.gz) is not up to date. To get Alpine running on raspberry pi, we have to upgrade "boot" files.

```
## backup original files
mv /media/mmcblk0p1/config.txt /media/mmcblk0p1/config.backup
mv /media/mmcblk0p1/fixup.dat /media/mmcblk0p1/fixup.backup
mv /media/mmcblk0p1/start.elf /media/mmcblk0p1/start.backup

## download latest gpu-firmware (03/24/2016)
# default version
curl -o /media/mmcblk0p1/fixup.dat \
https://raw.githubusercontent.com/raspberrypi/firmware/master/boot/fixup.dat

curl -o /media/mmcblk0p1/start.elf \
https://raw.githubusercontent.com/raspberrypi/firmware/master/boot/start.elf

# cut-down version
curl -o /media/mmcblk0p1/fixup_cd.dat \
https://raw.githubusercontent.com/raspberrypi/firmware/master/boot/fixup_cd.dat

curl -o /media/mmcblk0p1/start_cd.elf \
https://raw.githubusercontent.com/raspberrypi/firmware/master/boot/start_cd.elf

## create rpi2/3 config
cat << EOF > /media/mmcblk0p1/config.txt
disable_splash=1
boot_delay=0
start_x=0
gpu_mem=16
kernel=boot/vmlinuz-rpi2
```

```
initramfs boot/initramfs-rpi2 0x08000000
EOF
```

```
## safety 1st
sync
```

#2 - 01/27/2017 01:59 PM - Timo Teräs

- Status changed from New to Resolved
- Assignee set to Timo Teräs

Boot loader upgraded to latest versions in edge [alpine:5164608aaba7bd063a7a58573e2e297c8a66584](https://github.com/alpinelinux/alpine/pull/5164608aaba7bd063a7a58573e2e297c8a66584) and 3.5-stable [alpine:ef7f1c21c944875e2ce545091bab74a8a5c2fb7f](https://github.com/alpinelinux/alpine/pull/ef7f1c21c944875e2ce545091bab74a8a5c2fb7f).

#3 - 02/26/2017 04:31 PM - Mike Harsch

Until a new release package is generated, the procedure to work around this bug is quite a challenge for any newcomer looking to run alpine on a raspberry pi. As I've just been down this path myself, I'll share my notes for others who may be similarly stuck.

Timeline: this bug has broken the installation experience on Raspberry Pi for anyone coming to alpine since the release of 3.5.0 (22-Dec-2016) and remains broken in the current stable release 3.5.1 (released 26-Jan-2017). Today is 26-Feb-2017. Alpine installs on Raspberry Pi have been broken for over 2 months and counting.

Workaround installation procedure:

- Prepare SD card per wiki instructions with either 3.5.0 (the version linked to by the Raspberry Pi download link on the main download page) or 3.5.1 (latest stable version).

- Boot the Pi and run setup-alpine as per usual. After running 'lbu commit' but before rebooting for the first time, update the raspberry pi boot files using the version referenced above like this:

```
mount -o rw,remount /media/mmcblk0p1
```

```
cd /media/mmcblk0p1
```

```
rm fixup.dat start.elf
```

```
for i in fixup.dat start.elf fixup_cd.dat start_cd.elf;do
```

```
curl -O https://raw.githubusercontent.com/raspberrypi/firmware/debe2d29bbc3df84f74672fae47f3a52fd0d40f1/boot/\$i
```

```
done
```

If you're using the serial console, you'll need to add 'enable_uart=1' to config.txt

If you want to watch boot messages, remove 'quiet' from cmdline.txt

#4 - 05/22/2017 10:58 AM - Natanael Copa

- Status changed from Resolved to Closed

fix was included in 3.5.2

#5 - 05/29/2017 04:08 PM - Ivan Tham

I tried but it doesn't boot after updated to alpine linux 3.6.0 from 3.5.2, stuck on splash screen if display_splash=1 is commented.

#6 - 05/29/2017 05:42 PM - Timo Teräs

- Status changed from Closed to Assigned
- Target version set to 3.6.1

#7 - 05/30/2017 11:58 AM - Timo Teräs

- Status changed from Assigned to Resolved

Fixed -rpi2 kernel config, verified to boot on RPi3 hardware. Please open new bug next time.

#8 - 06/01/2017 07:20 PM - Natanael Copa

- Status changed from Resolved to Closed