

Raspberry Pi - Support #682

Installing Arch Linux on a Raspberry Pi 2

10/22/2015 10:09 AM - Daniel Curtis

Status:	Closed	Start date:	10/22/2015
Priority:	Normal	Due date:	
Assignee:	Daniel Curtis	% Done:	100%
Category:	Operating Systems	Estimated time:	1.00 hour
Target version:	Arch Linux	Spent time:	2.00 hours
Description			
<p>The following instructions use /dev/mmcblk0 as the micro SD card that Arch will be installed on. Replace it according to your device path.</p> <p>NOTE: This setup guide includes a swap partition; if you do not want to use swap space skip over the steps and make sure to set root=/dev/mmcblk0p2 in the /boot/config.txt at the end of the guide.</p> <ul style="list-style-type: none">• Start fdisk to partition the SD card: <pre>sudo fdisk /dev/mmcblk0</pre>• At the fdisk prompt, delete old partitions and create a new one:<ul style="list-style-type: none">◦ Type o. This will clear out any partitions on the drive.◦ Type p to list partitions. There should be no partitions left.◦ Type n, then p for primary, 1 for the first partition on the drive, press ENTER to accept the default first sector, then type +100M for the last sector.◦ Type t, then c to set the first partition to type W95 FAT32 (LBA).◦ Type n, then p for primary, 2 for the second partition on the drive, and then ENTER to accept the default first sector, then type +1024M for the last sector.◦ Type n, then p for primary, 3 for the third partition on the drive, and then press ENTER<u>twice</u> to accept the default first and last sector.◦ Write the partition table and exit by typing w.• Create and mount the boot partition on the first partition: <pre>sudo mkfs.vfat /dev/mmcblk0p1 sudo mkdir /mnt/boot sudo mount /dev/mmcblk0p1 /mnt/boot</pre>• Create the swap space on the second partition: <pre>sudo mkswap /dev/mmcblk0p2</pre>• Create and mount the root filesystem on the third partition: <pre>sudo mkfs.ext4 /dev/mmcblk0p3 sudo mkdir /mnt/root sudo mount /dev/mmcblk0p3 /mnt/root</pre>• Download and extract the root filesystem (as root, not via sudo): <pre>wget http://archlinuxarm.org/os/ArchLinuxARM-rpi-2-latest.tar.gz sudo bsdtar -xpf ArchLinuxARM-rpi-2-latest.tar.gz -C /mnt/root sudo sync</pre>			

- Move boot files to the first partition:

```
sudo mv /mnt/root/boot/* /mnt/boot
```

- Edit the cmdline.txt file:

```
sudo vi /mnt/boot/cmdline.txt
```

- And change the default root location to the third partition:

```
root=/dev/mmcblk0p3 rw rootwait console=ttyAMA0,115200 console=tty1 selinux=0 plymouth.ena  
ble=0 smsc95xx.turbo_mode=N dwc_otg.lpm_enable=0 kgdboc=ttyAMA0,115200 elevator=noop
```

- Unmount the two partitions:

```
sudo umount /mnt/boot /mnt/root
```

Now insert the SD card into the Raspberry Pi 2, connect ethernet, and apply 5V power. Use the serial console or SSH to the IP address given to the board by your router.

NOTE: The default user alarm with the password **alarm**.

NOTE: The default root password is **root**.

Activating the Swap space

- To activate the swap after logging into the Pi 2 as root, edit /etc/fstab and add the following:

```
sudo -s  
echo '/dev/mmcblk0p2 none swap defaults 0 0' >> /etc/fstab  
exit
```

- Now reboot the Raspberry Pi 2 **or** run the following to activate the swap:

```
sudo swapon -a
```

Resources

- <http://archlinuxarm.org/platforms/armv7/broadcom/raspberry-pi-2>

History

#1 - 10/22/2015 10:10 AM - Daniel Curtis

- Description updated

- Status changed from New to In Progress

- % Done changed from 0 to 50

#2 - 10/22/2015 10:17 AM - Daniel Curtis

- Status changed from In Progress to Resolved

- % Done changed from 50 to 100

#3 - 10/22/2015 04:41 PM - Daniel Curtis

- Description updated

#4 - 10/22/2015 04:43 PM - Daniel Curtis

- *Description updated*

#5 - 11/27/2015 03:49 PM - Daniel Curtis

- *Status changed from Resolved to Closed*

#6 - 05/10/2016 01:12 PM - Daniel Curtis

- *Description updated*

#7 - 05/12/2016 03:20 PM - Daniel Curtis

- *Description updated*