Raspberry Pi - Support #492

Trimming Excessively Large Disk Image Files

12/11/2014 01:09 PM - Daniel Curtis

Status:	Closed	**Start date:**	12/11/2014
Priority:	Normal	**Due date:**	
Assignee:	Daniel Curtis	**% Done:**	100%
Category:		**Estimated time:**	1.00 hour
Target version:		**Spent time:**	1.50 hour

Description

Zero The Free Space

- Install zerofree:

```
apt-get install zerofree
```

- Fill free space of the image with zero:

```
zerofree /dev/sdb2
```

Acquiring The Image

- While modifying the stock image of Raspbian, I decided to take a backup image of my drive using dd:

```
dd if=/dev/sdb of=modified-raspbian.img
```

- Then shrunk main partition image to the value I desired using gparted:

```
gparted modified-raspbian.img
```

However the image of the entire drive left a lot of unallocated space left in the image. After searching online I found that all I needed to do was to use dd to extract just the raspbian image apart from the unallocated space. The parameter for dd that does this is count=.

Find Image Size Information

- Get the needed block information by running the following:

```
fdisk -u -l modified-raspbian.img
```

  - Example output:

```
Disk /dev/sdb: 8462 MB, 8462008320 bytes
255 heads, 63 sectors/track, 1028 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk identifier: 0x5c0894d9

Device Boot      Start         End      Blocks   Id  System
```

```
/dev/sdb1   *           1           9       72261    e  W95 FAT16 (LBA)
/dev/sdb2              10         103      755055   83  Linux
```

Trim The Image

- In the following example the last partition ends on 103, and the unit size is 8225280 bytes. So simply run command:

```
dd if=modified-raspbian.img of=modified-raspbian-stripped.img bs=8225280 count=103
```

  - **NOTE**: I had problems with a couple of images being corrupt after this process, so I found that adding 1 to the count argument will correct this.

```
dd if=modified-raspbian.img of=modified-raspbian-stripped.img bs=8225280 count=104
```

Resources

- http://serverfault.com/questions/446529/create-image-of-a-usb-drive-without-unallocated-partition

History

#1 - 12/11/2014 03:40 PM - Daniel Curtis

- Description updated

- Status changed from New to Resolved

- % Done changed from 0 to 100

#2 - 12/12/2014 10:58 AM - Daniel Curtis

- Status changed from Resolved to Closed

#3 - 02/25/2015 12:36 PM - Daniel Curtis

- Project changed from GNU/Linux Administration to Raspberry Pi

- Subject changed from Extracting Image From Excessively Large Image to Trimming Excessively Large Disk Image Files

#4 - 02/25/2015 01:00 PM - Daniel Curtis

- Description updated

#5 - 02/25/2015 03:58 PM - Daniel Curtis

- Description updated