

Resizing VirtualBox and Linux Partitions with GParted

VirtualBox 4 has an [option to modify](#) the logical size of the virtual disk after it's been created without affecting the physical size. The size specified in this option is the new overall size of the disk not the increment. If the current size is 100MB and resizing to 200MB would make the disk 200MB not 300MB (100 + 200). Once the size is increased it cannot be decreased (yet).

Current size of the disk

```
-rw----- 1 root root 18G Jan 27 16:43 rac4.vdi
```

The size of disk seen by the OS using this virtual disk

```
Disk /dev/sda: 21.4 GB, 21474836480 bytes
255 heads, 63 sectors/track, 2610 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
```

Size of the partitions

Filesystem	Size	Used	Avail	Use%	Mounted on
/dev/sda3	16G	13G	1.8G	88%	/
/dev/sda1	99M	12M	83M	13%	/boot
tmpfs	1006M	0	1006M	0%	/dev/shm

Increase the size with modifyhd option

```
VBoxManage modifyhd rac4.vdi --resize 40960
0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%
```

Physical size is unaffected. This will grow as the space is used.

```
-rw----- 1 root root 18G Jan 27 16:45 rac4.vdi
```

But the size of the disk seen by the OS has changed

```
Disk /dev/sda: 42.9 GB, 42949672960 bytes
255 heads, 63 sectors/track, 5221 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
```

The additional space is unallocated and linux partitions are not affected after this increase.

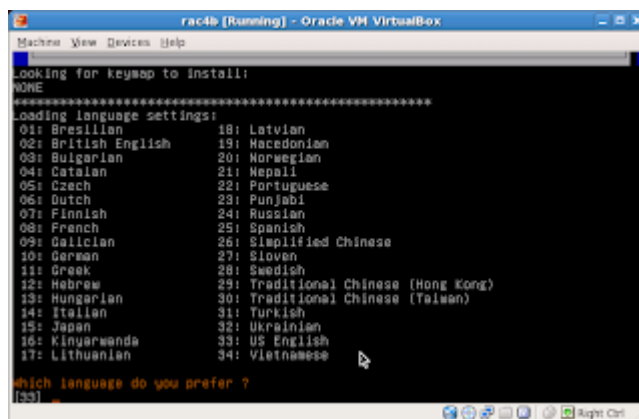
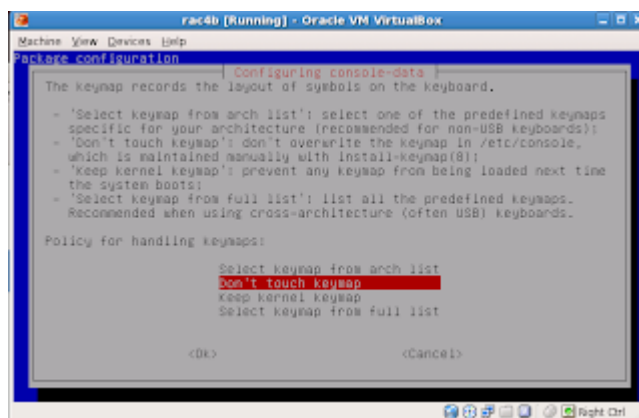
Filesystem	Size	Used	Avail	Use%	Mounted on
/dev/sda3	16G	13G	1.8G	88%	/
/dev/sda1	99M	12M	83M	13%	/boot
tmpfs	1006M	0	1006M	0%	/dev/shm

Using the [Gnome Partition Editor \(GParted\)](#) it is possible to resize the linux partition and allocate the unused space to it effectively increasing the size of it.

Download the Live CD iso of gparted and boot the virtual box server from it.



Select the default option and complete the startup.



```

Machine View Devices Help
15: Japan          32: Ukrainian
16: Klingonwada   33: US English
17: Lithuanian    34: Vietnamese

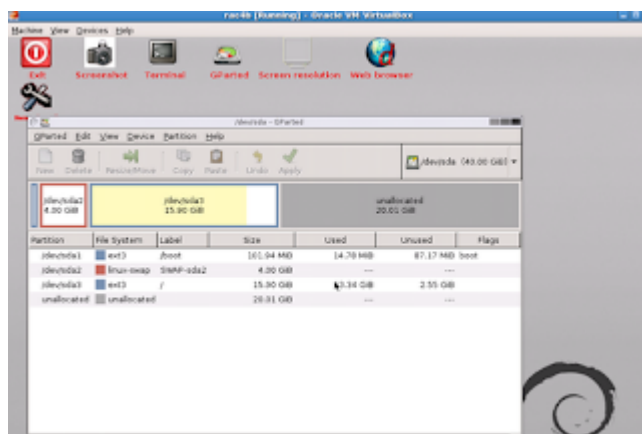
Which language do you prefer ?
[33]
The default language US English is used
Language selected en_US
Setting locale in /etc/default/locale...
Setting locale in /etc/environment...
Done!

*****
//NOTE// Later we will enter graphical environment if you choose '0'. However,
if graphical environment (X-window) fails to start, you can
run "sudo forcevideo" to configure it again. Choose 1024x768, 800x600 or 640x480
as your resolution and the driver for your VESA card, etc. Most of the time you
can accept the default values if you have no idea about them.
If failing to enter graphical environment, and it does not return to text mode,
you can reboot again, and choose '1' here to config X manually.

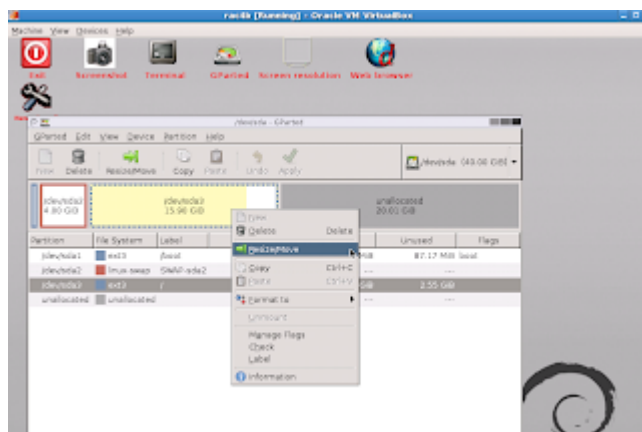
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Which mode do you prefer ?
(0) Continue to start X to use GParted automatically
(1) Run 'forcevideo' to config X manually
(2) Enter command line prompt
[0]

```

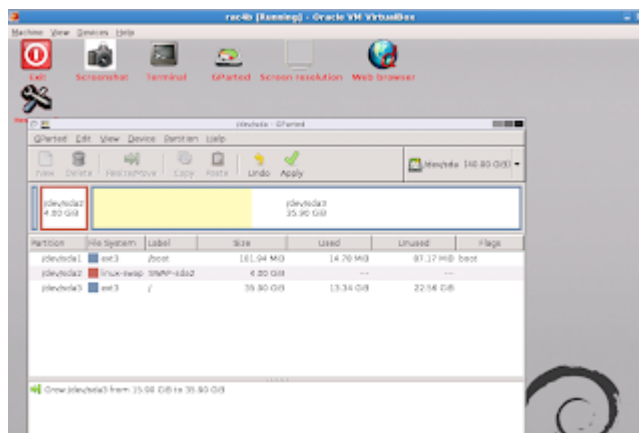
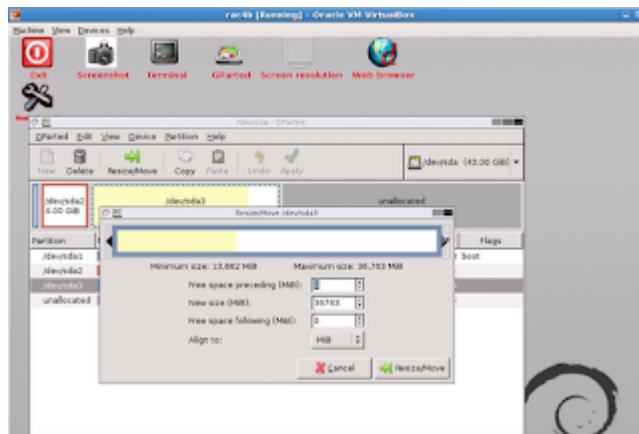
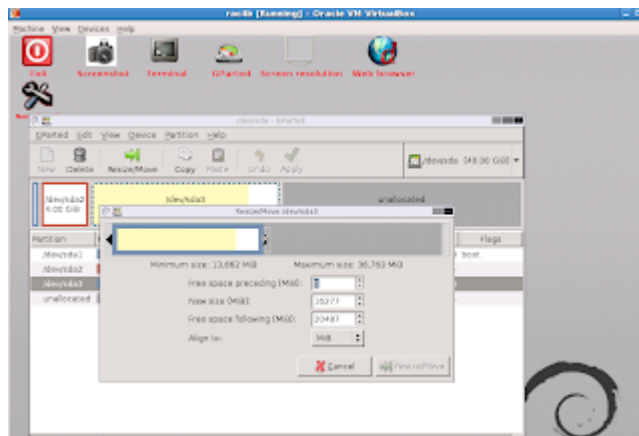
GParted shows the size of current partitions (15.9 GB) and the unallocated space (20 GB).



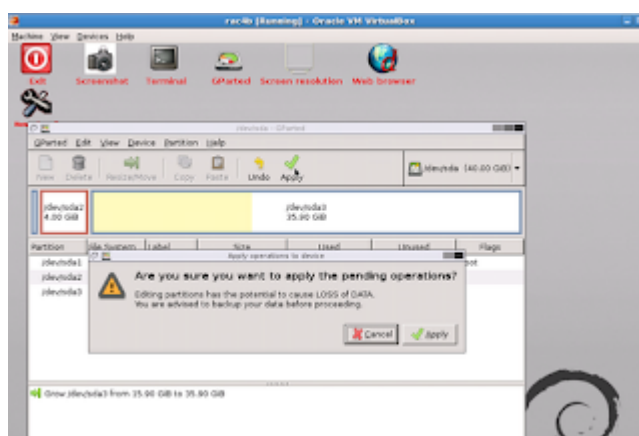
Right click on the partition to resize and select resize/move item from the popup menu.

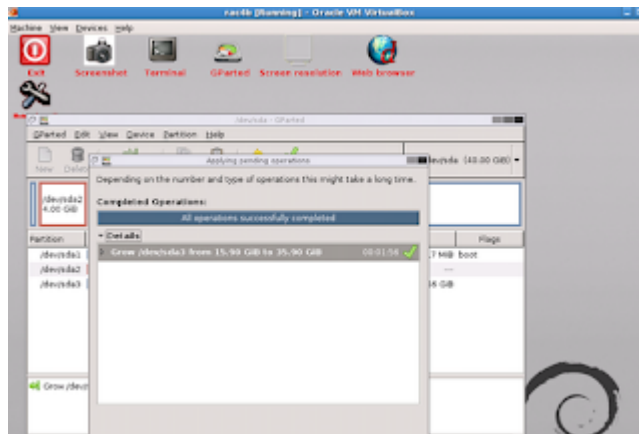
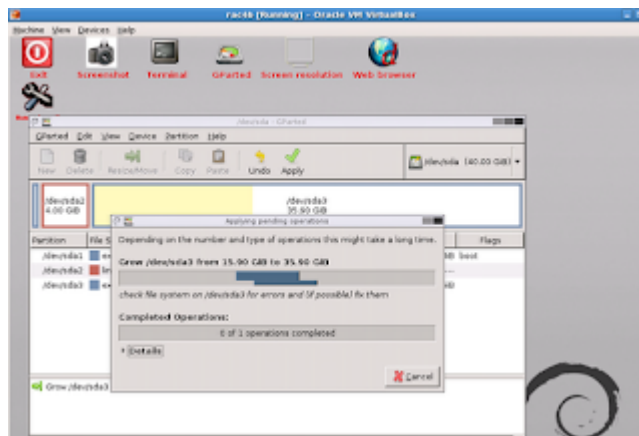


Resize the partition by either dragging the highlighted box or adjusting the numerical spinners.



Click apply to complete the resizing.





Restart the virtual server and see the size of linux partition changed.

Filesystem	Size	Used	Avail	Use%	Mounted on
/dev/sda3	35G	13G	21G	39%	/
/dev/sda1	99M	12M	83M	13%	/boot
tmpfs	1006M	0	1006M	0%	/dev/shm

Size of the new partition is 35 GB (15 GB previously allocated and 20 GB added with GParted).