

Reduce the VMDK File Size of the VMWare Virtual Machine

1. Shut down the virtual machine you want to reduce disk size;
2. Using SSH, connect to the console of the ESXi host the VM is registered on (you can use putty or the [built-in Windows SSH client](#));
3. Go the directory the VMDK file of your VM is located in (you can get a path to it in the virtual disk properties of the vSphere client):
`$ cd /vmfs/volumes/datastore/test-VM`

```
OpenSSH SSH client
[root@t04: /vmfs/volumes/5c6d6b2b-3d4dbee5-4d49-00109b4814c0/test_vm] ls -la
total 88201344
drwxr-xr-x 1 root root 73728 Jan 27 14:29
drwxr-xr-t 1 root root 81920 Jan 27 14:17
-rw-r--r-- 1 root root 400 Jan 27 14:21 test_vm-014888e2.hlog
-rw-r----- 1 root root 4294967296 Jan 27 14:28 test_vm-d8187964.vswp
-rw-r----- 1 root root 270840 Jan 27 14:28 test_vm.nvram
-rw-r--r-- 1 root root 0 Jan 27 14:21 test_vm.vmsd
-rw-r-xr-x 1 root root 3444 Jan 27 14:29 test_vm.vmx
-rw-r----- 1 root root 0 Jan 27 14:28 test_vm.vmx.lck
-rw-r----- 1 root root 47 Jan 27 14:29 test_vm.vmxr
-rw-r-xr-x 1 root root 3408 Jan 27 14:29 test_vm.vmxr-
-rw-r----- 1 root root 5243392 Jan 27 14:28 test_vm_3-ctk.vmdk
-rw-r----- 1 root root 85899345920 Jan 27 17:03 test_vm_3-flat.vmdk
-rw-r----- 1 root root 589 Jan 27 14:28 test_vm_3.vmdk
-rw-r----- 1 root root 255178 Jan 27 16:54 vmware.log
-rw-r----- 1 root root 115343360 Jan 27 14:28 vmx-test_vm-3625482596-1.vswp
```

4. Display the contents of the virtual disk configuration file (*.vmdk) using the `cat` command:

```
$ cat test_vm_3.vmdk
```

The size of the vmdk disk is shown in the **#Extent description** section (after the RW characters). In this case, it is **167772160** (80 GB * 1024 * 1024 * 1024 / 512);

```
[root@t04: /vmfs/volumes/5c6d6b2b-3d4dbee5-4d49-00109b4814c0/test_vm] cat test_vm_3.vmdk
# Disk DescriptorFile
version=3
encoding="UTF-8"
CID=34003714
parentCID=ffffffff
createType="vmfs"

# Extent description
RW 167772160 VMFS "test_vm_3-flat.vmdk"

# Change Tracking File
changeTrackPath="test_vm_3-ctk.vmdk"
```

5. I want to reduce my VMDK disk from 80 to 40 GB. It means that I have to specify **38886080** (40 GB * 1024 * 1024 * 1024 / 512) in the Extent description section. Set a new size of your virtual disk using a text editor (vi or nano);
6. I am using vi:
`$ vi test_vm_3.vmdk`
7. Using the down arrow key, go to the line containing the disk size and press `i` (to edit it). Specify the new size of the virtual disk. Press `ESC` to exit the edit mode and then type `wq ->` Enter to save the changes;

```
OpenSSH SSH client
# Disk DescriptorFile
version=3
encoding="UTF-8"
CID=34003714
parentCID=ffffffff
createType="vmfs"

# Extent description
RW 38886080 VMFS "test_vm_3-flat.vmdk"

# Change Tracking File
changeTrackPath="test_vm_3-ctk.vmdk"

# The Disk Data Base
#DDB
```

8. Then just clone or [migrate \(using Storage vMotion\) the virtual machine](#) to another datastore. After moving the virtual machine files, the new size of its virtual disk will be displayed in its properties.

Tip. If you have only one ESXi host, one VMFS datastore, you won't be able to use the Storage vMotion.

Then you can clone vmdk using this command:

```
$ vmkfstools -i test_vm_3.vmdk test_vm_3_newsize.vmdk
```

```
[root@t04: /vmfs/volumes/5c6d6b2b-3d4dbee5-4d49-00109b4814c0/test_vm] vmkfstools -i test_vm_3.vmdk test_vm_3_newsize.vmdk
Destination disk format: VMFS zeroedthick
Cloning disk 'test_vm_3.vmdk'...
Clone: 21% done.
```

Remove the source VMDK disk, clone the remaining VMDK disk again and rename it by specifying its original name:

```
$ rm test_vm_3.vmdk
$ rm test_vm_3-flat.vmdk
$ vmkfstools -i test_vm_3_newsize.vmdk test_vm_3.vmdk
```

9. Make sure that the new size of the virtual disk is now displayed in the VM properties.

Ref:

<http://woshub.com/shrinking-vmdk-virtual-disk-vmware-esxi/>

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Online URL: <https://www.navel.ir/article/shrinking-vmdk-virtual-disk-size-on-vmware-esxi-98.html>