

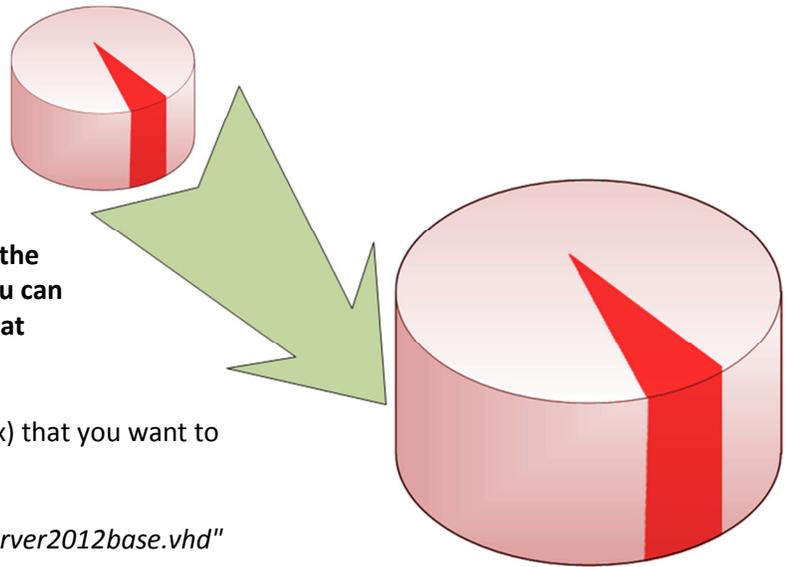
Increasing the Size of a VHD with *diskpart*

Step-by-Step: Peter McEldowney

Note: At any time using *diskpart*, you can put the word *help* in front of the command so that you can see the other switches that you can use or what exactly you are doing with *diskpart*.

1. Select the virtual disk file (.vhd or .vhdx) that you want to perform this operation to.

```
select vdisk file="F:\Server2012VHD\Server2012base.vhd"
```



```
Administrator: Command Prompt - diskpart
DISKPART> help select vdisk
    Selects the specified virtual disk by filename and shifts the focus to it.
Syntax:  SELECT VDISK FILE=<"filename"> [NOERR]
        FILE=<"filename">
            Specifies the complete path and filename of an existing
            virtual disk file.
        NOERR    For scripting only. When an error is encountered, DiskPart
                continues to process commands as if the error did not occur.
                Without the NOERR parameter, an error causes DiskPart to exit
                with an error code.
Example:
        SELECT VDISK FILE="c:\test\test.vhd"
        SELECT VDISK FILE="c:\test\test.vhdx" NOERR
DISKPART> select vdisk file="F:\Server2012VHD\Server2012base.vhd"
DiskPart successfully selected the virtual disk file.
```

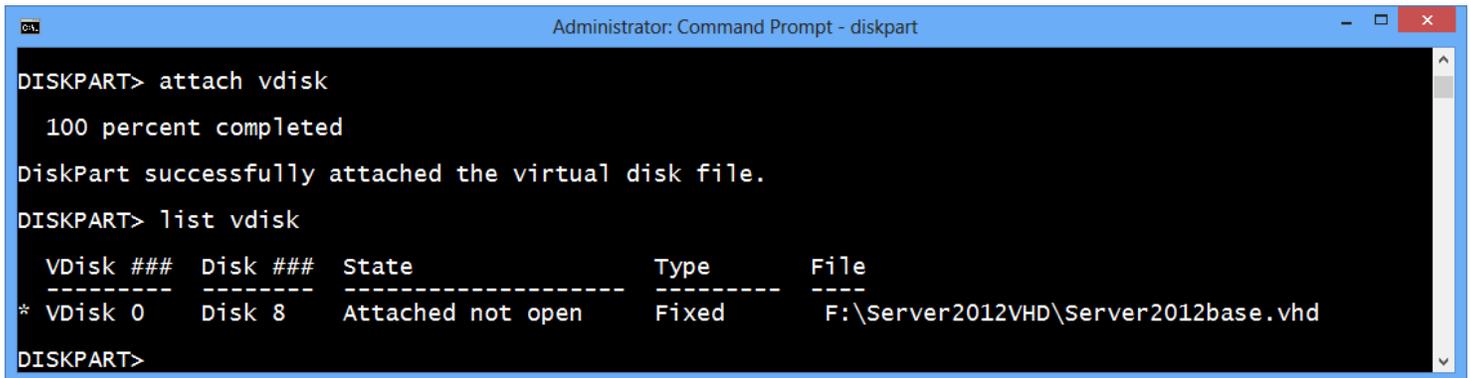
2. Expand the vdisk (size is in MB).
[Note: This is the size you are making it, not the size you are expanding it by.]
Remember, 1GB is really 1024MB

```
expand vdisk maximum=28672
```

```
DISKPART> expand vdisk maximum=28672
    100 percent completed
DiskPart successfully expanded the virtual disk file.
DISKPART> _
```

3. In order to access information that is stored in this vdisk file, you can use *attach vdisk*
[Note: You can only do this to vdisks that you have selected so if you have exited diskpart and re-entered it, you will have to re-enter the command demonstrated in step 1.]

[optional] *select vdisk file="F:\Server2012VHD\Server2012base.vhd"*
attach vdisk



```
Administrator: Command Prompt - diskpart
DISKPART> attach vdisk
    100 percent completed
DiskPart successfully attached the virtual disk file.
DISKPART> list vdisk
   VDisk ###  Disk ###  State          Type          File
-----
* VDisk 0    Disk 8    Attached not open  Fixed          F:\Server2012VHD\Server2012base.vhd
DISKPART>
```

4. If you want to resize the partition on your vdisk before going booting back into the VM, you will need the following information: free space available (in MB), volume number of partition extending.

Free Space Available:

list disk

Volumes on machine (by number):

list volume

Resizing: Select volume to expand and then expand.

select volume #

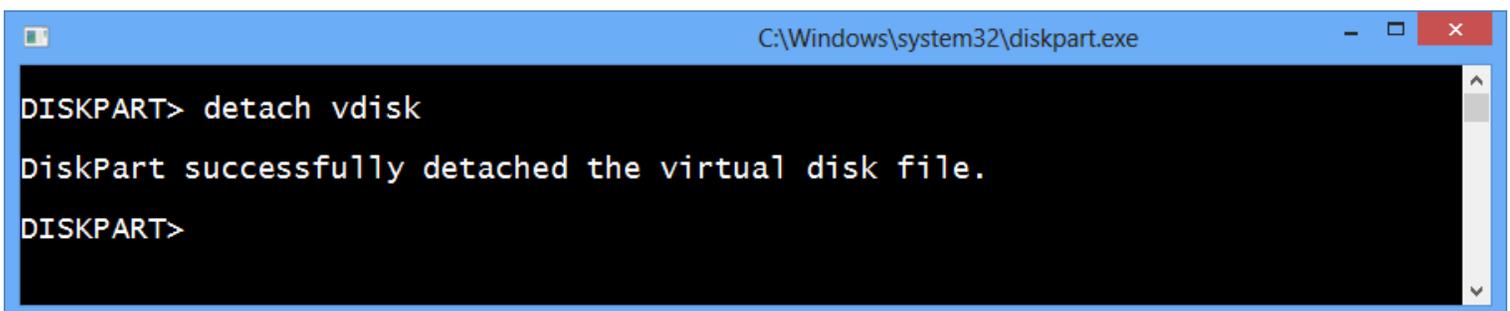
extend size=[size in MB]

Example:

select volume 13

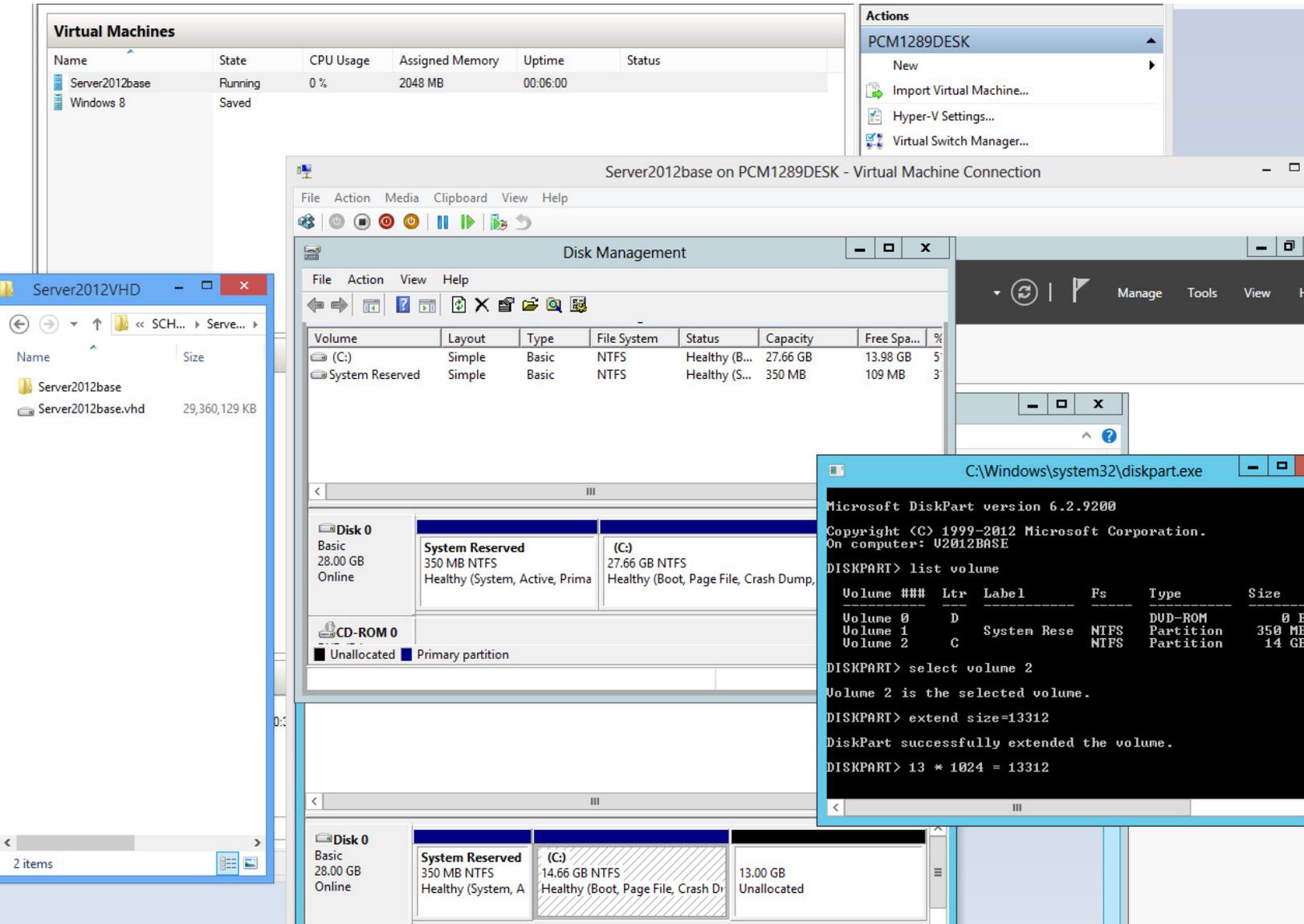
extend size=32768

5. Before you can use the vdisk file on a virtual machine, you must detach the vdisk.
[If you do not detach your .vhd or .vhdx file, then your Virtual Machine will return an error when attempting to start it.]



```
C:\Windows\system32\diskpart.exe
DISKPART> detach vdisk
DiskPart successfully detached the virtual disk file.
DISKPART>
```

- If you ignored step 4, then once you are back into the virtual machine, you must extend the size of the partition to the space that is now available from within the VM.
[Note: You can also do this before starting your virtual machine back up if you go back and do step 4. Going into the Virtual machine, you want to go into Disk Management (which in Windows 8, can now be found by right clicking on the start button at the bottom left edge of the screen).]



Automated VHD Resizer Batch File

On the following page is a script that I made to automate this process so that you can just enter in the full path and filenames along with the options you want.

This batch file works by creating short scripts that are immediately deleted after running them.

Copy and paste it into a batch file (file that ends in .bat) and Run as an Administrator.

```

@echo off

echo:   %%
echo:           VHD ENLARGER UTILITY  %%
echo:
echo:           [Please run this as an Administrator.]  %%
echo:           Creator  %%
echo:           Peter McEldowney  %%
echo:   %%
echo:   %%

set /p fullnamedir=   What is the full directory and filename of the VHD you would like to expand?   %%
echo.
echo select vdisk file="%fullnamedir%" >> C:\select_expand.txt

set /p vhdsiz=       What size do you want to increase your .vhd or .vhdx to? (in MB, remember that 1024MB = 1GB).   %%
echo.
echo expand vdisk maximum=%vhdsiz% >> C:\select_expand.txt
echo.
diskpart /s C:\select_expand.txt
del C:\select_expand.txt
echo.
echo.

set /p attachvdisk=   Would you like to mount your vhd or vhdx so that you can browse your filesystem? [ Y or N ]   %%
echo.
echo.
if /i {%attachvdisk%}=={y} ( goto :attach )
if /i {%attachvdisk%}=={yes} ( goto :attach )
goto :noattach

:attach
echo select vdisk file="%fullnamedir%" >> C:\attach.txt
echo attach vdisk >> C:\attach.txt
diskpart /s C:\attach.txt
del C:\attach.txt
echo.
echo.
set /p extend=       Would you like to extend the size of the partition? [ Y or N ]   %%
echo.
echo.
if /i {%extend%}=={y} ( goto :esize )
if /i {%extend%}=={yes} ( goto :esize )
goto :aextend
echo.
echo.

:esize
echo select vdisk file="%fullnamedir%" >> C:\listdisk.txt
echo list disk >> C:\listdisk.txt
echo list volume >> C:\listdisk.txt
echo.
echo.
diskpart /s C:\listdisk.txt
del C:\listdisk.txt
echo.
echo.
set /p volume=       What is the volume number of your VHD partition?
set /p extendsize=   How much would you like to extend your disk by? (Note: 1024MB = 1GB, just like 1024KB = 1MB)   %%
echo.
echo select vdisk file="%fullnamedir%" >> C:\extendvdisk.txt
echo select volume %volume% >> C:\extendvdisk.txt
echo extend size=%extendsize% >> C:\extendvdisk.txt
diskpart /s C:\extendvdisk.txt
del C:\extendvdisk.txt
echo.
echo.

:aextend

set /p detach=       Were you planning on using your .vhd or .vhdx soon?   %%
echo (The selected vhd is about to be detached so that you may use it after this batch file is complete)
echo.
echo.
echo select vdisk file="%fullnamedir%" >> C:\detachvdisk.txt
echo detach vdisk >> C:\detachvdisk.txt
diskpart /s C:\detachvdisk.txt
del C:\detachvdisk.txt
echo.
echo.

:noattach
echo You can now go into your Virtual Machine and manage your disk.
Pause

```