

storage report listing capacity and ...



swspjcd 60 posts since

Nov 14, 2003

I am just starting to learn powershell so be patient! I'm looking for a way to connect to our VC or one of the hosts and list all of the virtual servers and their individual drive capacities and also the freespace for each drive. I just started playing around with powershell yesterday and found that if I do "get-vm|fc" it will list out alot of detail about each virtual machine including some lines like below. As far as getting the drive listings for each vm with capacity and freespace into a nice formatted report, I'm at a loss. Anyone wanna help? I'm looking through some other scripts to get examples but thought I'd through this out there and see if anyone else (who has better powershell skills!) could help out some.

```
class VirtualMachineImpl
{
    PowerState = PoweredOn
    Description =
    Guest =
    class VMGuestImpl
    {
        OSFullName = Microsoft Windows Server 2003, Standard Edition (32-bit
        IPAddress =
        [
        REMOVED
        ]
        State = Running
        Disks =
        [
        class DiskInfoImpl
        {
            Path = C:\
            Capacity = 8578932736
            FreeSpace = 1092395008
        }
        class DiskInfoImpl
        {
            Path = D:\
            Capacity = 10733219840
            FreeSpace = 10666061824
        }
    }
}
```

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]

Tags: get-view, powershell, script, storage, vm



[hugopeeters](#) 155 posts since

Jan 10, 2008 1. **Re: storage report listing capacity and freespace for each drive on each vm** Sep 9, 2008 11:44 PM

After connecting to Virtual Center or an ESX server (Connect-VIServer SERVERNAME), you can use the following one-liner:

```
Get-VM | Get-VMGuest | Select  
VmName -ExpandProperty Disks
```

If you want to have it as a csv file (to import in Excel), pipe it to `Export-Csv D:\scripts\vmdisks.csv`

If you'd rather have it saved in html, pipe it to `ConvertTo-Html | Out-File D:\scripts\vmdisks.html`

You might want to set `$errorActionPreference = SilentlyContinue` first, because powered off vm's will cause an error. Or use:

```
Get-VM | Where  
{ $_.PowerState -eq  
"PoweredOn"  
} | Get-VMGuest | Select VmName  
-ExpandProperty Disks
```

Hope that helps.

Hugo Peeters

www.peetersonline.nl



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Jan 10, 2008 2. **Re: storage report listing capacity and freespace for each drive on each vm** Sep 9, 2008 11:58 PM

Or, if you want to get *really* fancy, try this one-liner:

```
Get-VM | Where { $_.PowerState  
-eq "PoweredOn" } | Get-VMGuest | Select VmName -ExpandProperty  
Disks | Select VmName, Path, @{ N="PercFree"; E={ [math]::Round( ( 100 * ( $_.FreeSpace / $_.Capacity ) ),0 ) } } | Sort PercFree
```

You'll get an overview sorted by Percentage of free space.



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Nov 14, 2003 3. **Re: storage report listing capacity and freespace for each drive on each vm** Sep 10, 2008 5:40 AM

👍 in response to: [hugopeeters](#) Excellent! Thanks to all of you. This definitely gives me a place to start and will certainly help in my quest for more powershell scripting abilities.

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[fabbio75](#) 43 posts since

Sep 24, 2008 4. **Re: storage report listing capacity and freespace for each drive on each vm** Nov 18, 2008 1:11 AM

↑ in response to: [hugopeeters](#) Ok .. but i've some vm with Linux like SO... and i cannot find freespace disk property ... 😞 .. there's a solution?



[johnlennon](#) 38 posts since

Sep 2, 2005 5. **Re: storage report listing capacity and freespace for each drive on each vm** Nov 25, 2008 8:38 AM

↑ in response to: [fabbio75](#) Same here, for Linux RHEL5 with LVM, the command reports only the /boot partition information which is useless, instead of the / which is the one that we need.

What is reported by **Select VmName -ExpandProperty Disks**

Path Capacity FreeSpace

/boot 103512064 79201280

What df reports (in bold what is missing from the powershell output):

```
$ df -h
```

```
Filesystem Size Used Avail Use% Mounted on
```

```
/dev/mapper/VolGroup00-LogVol00
```

- 28G 13G 14G 48% /*

```
/dev/sda1 99M 24M 71M 25% /boot
```



[fabbio75](#) 43 posts since

Sep 24, 2008 6. **Re: storage report listing capacity and freespace for each drive on each vm** Dec 4, 2008 3:18 AM

↑ in response to: [hugopeeters](#) So there's no way to get freedisk space on VM Linux machine ????



[joshuatownsend](#) 18 posts since

Apr 17, 2006 7. **Re: storage report listing capacity and freespace for each drive on each vm** Dec 13, 2008 7:20 AM

↑ in response to: [fabbio75](#)

There is a way to get free space on Linux guests (or any guest in any power-state for that matter). I outline the method in a [post](#) on my blog at [VMtoday](#). My method is not a VI Toolkit for Windows solution, although it does use PowerShell to run a SQL Query against the VirtualCenter database. Check out the post for more info....

Josh

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[johnlennon](#) 38 posts since

Sep 2, 2005 8. **Re: storage report listing capacity and freespace for each drive on each vm** Jul 9, 2009 10:50 AM

I'm looking for an update from VMware: is there a way to get a reliable free space via this toolkit for Linux VMs? For Windows this works, for Linux nos so much...