How to list BIOS settings – Local or Remote Computer

In this post, I am going to explore PS commands on how to get BIOS settings on a local or remote machine. PS command will work on HP, LENOVO, DELL, TOSHIBA hardware.

Install the module - Open PowerShell as Admin - Run install-module GetBIOS

```
PS C:\Users\Administrator> install-module GetBIOS

Untrusted repository
You are installing the modules from an untrusted repository. If you trust this repository, change its
InstallationPolicy value by running the Set-PSRepository cmdlet. Are you sure you want to install the modules from
'PSGallery'?
[Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help (default is "N"): A
```
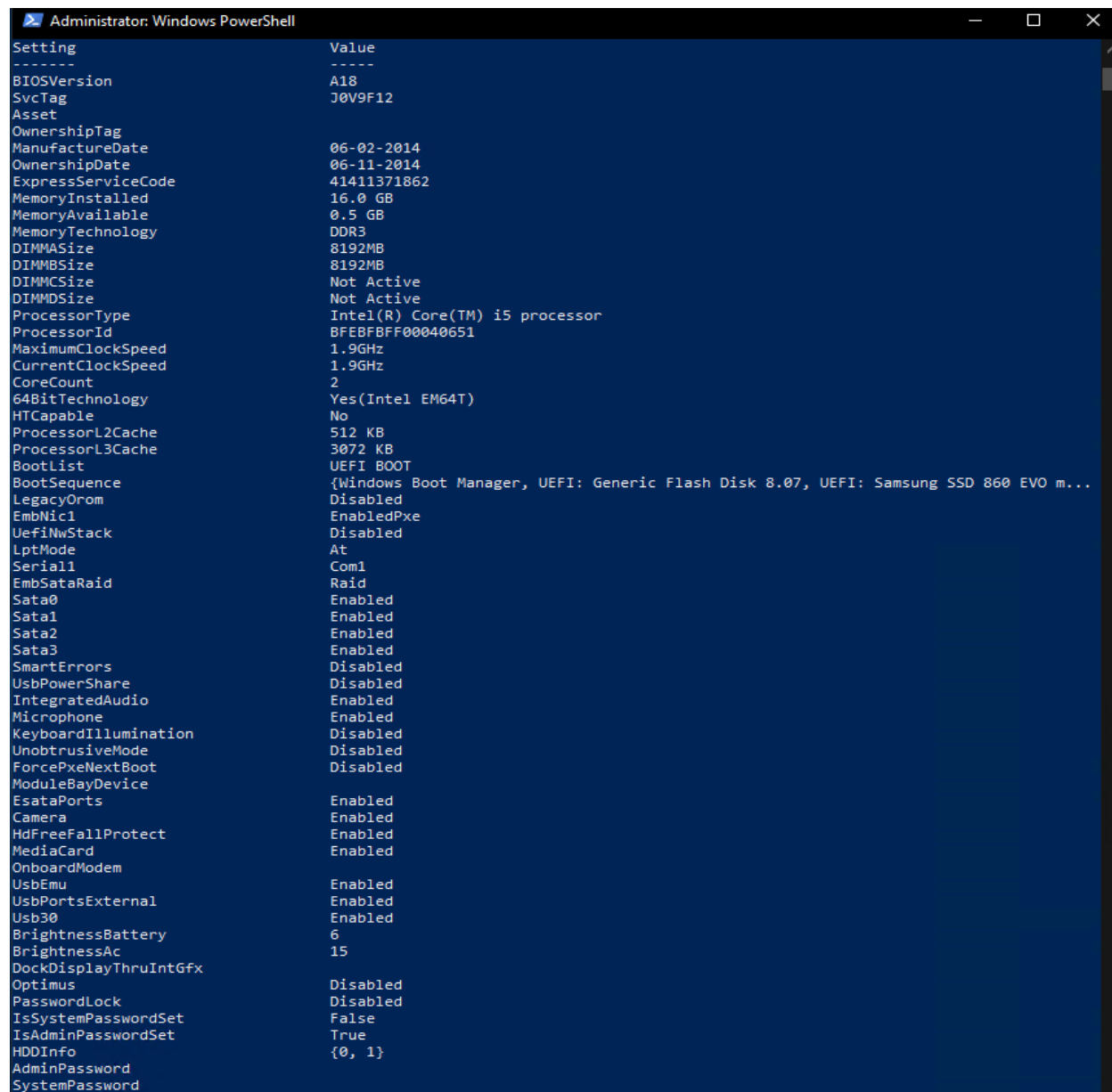
To get BIOS info – type Get-BIOS – did not work because I was using ASUS laptop

```
PS C:\Users\Administrator> Get-BIOS

######################################################
 Your manufacturer is not supported by the module
 Supported manufacturer: Dell, HP, Lenovo, Toshiba
######################################################
```

When I ran same command on Lenovo T430 below are the details

```
Administrator: Windows PowerShell                                            —    □    ×
Setting                       Value
-------                       -----
BIOSVersion                   A18
SvcTag                        J0V9F12
Asset
OwnershipTag
ManufactureDate               06-02-2014
OwnershipDate                 06-11-2014
ExpressServiceCode            41411371862
MemoryInstalled               16.0 GB
MemoryAvailable               0.5 GB
MemoryTechnology              DDR3
DIMMASize                     8192MB
DIMMBSize                     8192MB
DIMMCSize                     Not Active
DIMMDSize                     Not Active
ProcessorType                 Intel(R) Core(TM) i5 processor
ProcessorId                   BFEBFBFF00040651
MaximumClockSpeed             1.9GHz
CurrentClockSpeed             1.9GHz
CoreCount                     2
64BitTechnology               Yes(Intel EM64T)
HTCapable                     No
ProcessorL2Cache              512 KB
ProcessorL3Cache              3072 KB
BootList                      UEFI BOOT
BootSequence                  {Windows Boot Manager, UEFI: Generic Flash Disk 8.07, UEFI: Samsung SSD 860 EVO m...
LegacyOrom                    Disabled
EmbNic1                       EnabledPxe
UefiNwStack                   Disabled
LptMode                       At
Serial1                       Com1
EmbSataRaid                   Raid
Sata0                         Enabled
Sata1                         Enabled
Sata2                         Enabled
Sata3                         Enabled
SmartErrors                   Disabled
UsbPowerShare                 Disabled
IntegratedAudio               Enabled
Microphone                    Enabled
KeyboardIllumination          Disabled
UnobtrusiveMode               Disabled
ForcePxeNextBoot              Disabled
ModuleBayDevice
EsataPorts                    Enabled
Camera                        Enabled
HdFreeFallProtect             Enabled
MediaCard                     Enabled
OnboardModem
UsbEmu                        Enabled
UsbPortsExternal              Enabled
Usb30                         Enabled
BrightnessBattery             6
BrightnessAc                  15
DockDisplayThruIntGfx
Optimus                       Disabled
PasswordLock                  Disabled
IsSystemPasswordSet           False
IsAdminPasswordSet            True
HDDInfo                       {0, 1}
AdminPassword
SystemPassword
```

```
Administrator: Windows PowerShell                                      —  □  ✕
HDDPassword
StrongPassword                   Disabled
PasswordBypass                   Disabled
OromKeyboardAccess               Enabled
CpuXdSupport                     Enabled
AdminSetupLockout                Disabled
WirelessSwitchChanges            Disabled
Computrace
TpmSecurity                      Enabled
TpmActivation                    Enabled
TpmPpiAcpi                       Enabled
TpmPpiPo                         Disabled
TpmPpiDpo                        Disabled
SecureBoot                       Enabled
MultiCoreSupport                 CoresAll
IrstTimer                        30
Speedstep                        Enabled
CStatesCtrl                      Enabled
TurboMode                        Enabled
LogicProc                        Enabled
AutoOn                           Disabled
AutoOnHr                         0
AutoOnMn                         0
PeakShiftCfg                     Disabled
PeakShiftBatteryThreshold        15
PeakShiftDayConfiguration        {Monday, Tuesday, Wednesday, Thursday...}
AdvBatteryChargeCfg              Disabled
AdvancedBatteryChargeConfiguration {Monday, Tuesday, Wednesday, Thursday...}
UsbWake                          Disabled
WakeOnAc                         Disabled
WlanAutoSense                    Enabled
WwanAutoSense                    Enabled
WakeOnLan                        LanOnly
BlockSleep                       Disabled
PrimaryBattChargeCfg             Adaptive
CustomChargeStart                50
CustomChargeStop                 90
SliceBattChargeCfg               Express
IntlSmartConnect                 Disabled
PowerWarn                        Enabled
Keypad                           EnabledByFnKey
PntDevice                        Touchpad
NumLock                          Enabled
ExternalHotKey                   Enabled
RptKeyErr                        Enabled
Fastboot                         Minimal
PostMebxKey                      Enabled
Virtualization                   Enabled
VtForDirectIo                    Enabled
TrustExecution                   Enabled
WirelessSwitchCellularCtrl       Enabled
WirelessSwitchWlanOnlyCtrl       Enabled
WirelessSwitchBluetoothCtrl      Enabled
WirelessSwitchWiGigCtrl          Enabled
WirelessWwan                     Enabled
WirelessLan                      Enabled
BluetoothDevice                  Enabled
AllowBiosDowngrade               Enabled
ForcedNetworkFlag                TBD
```

Grid View – Get-BIOS -showgirdview
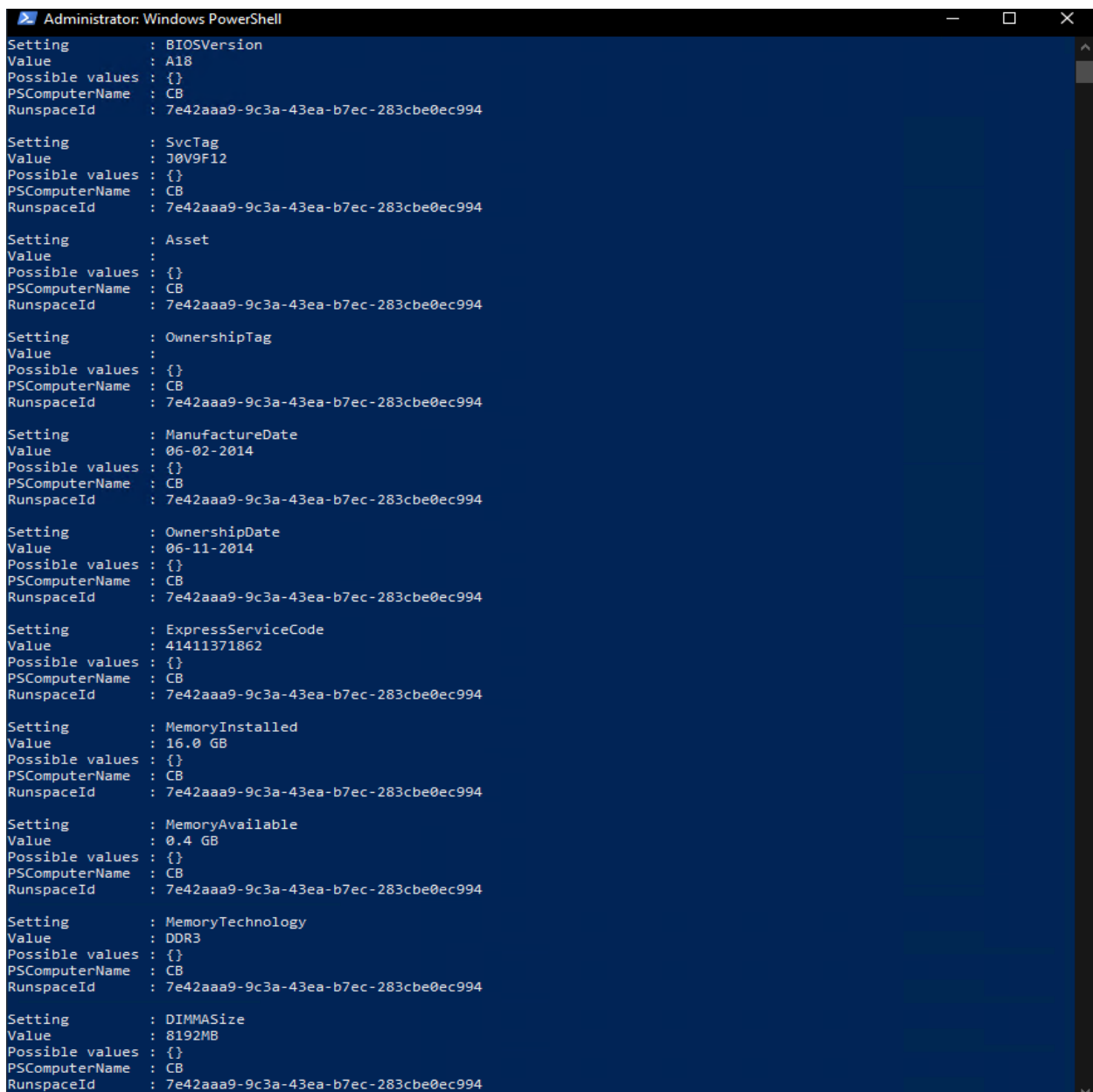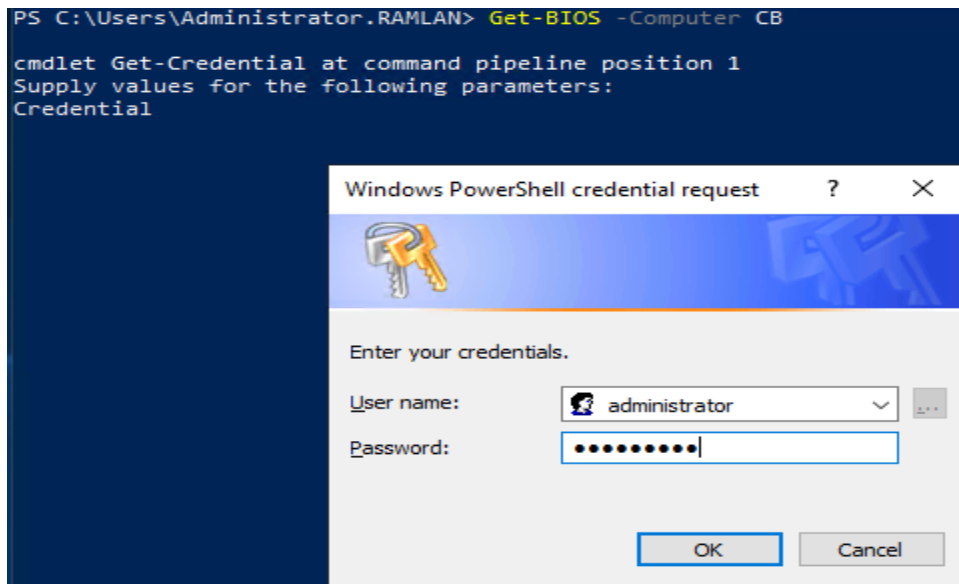


```
$Get_BIOS_Settings | out-gridview                                      —  □  ✕
Filter                                                                    🔍 ⌃
➕ Add criteria ▾
```

Setting	Value	Possible values	
SvcTag	J0V9F12	{}	
Asset		{}	
OwnershipTag		{}	
ManufactureDate	06-02-2014	{}	
OwnershipDate	06-11-2014	{}	
ExpressServiceCode	41411371862	{}	
MemoryInstalled	16.0 GB	{}	
MemoryAvailable	0.5 GB	{}	
MemoryTechnology	DDR3	{}	
DIMMASize	8192MB	{}	
DIMMBSize	8192MB	{}	
DIMMCSize	Not Active	{}	
DIMMDSize	Not Active	{}	
ProcessorType	Intel(R) Core(TM) i5 processor	{}	
ProcessorId	BFEBFBFF00040651	{}	
MaximumClockSpeed	1.9GHz	{}	
CurrentClockSpeed	1.9GHz	{}	
CoreCount	2	{}	
64BitTechnology	Yes(Intel EM64T)	{}	
HTCapable	No	{}	
ProcessorL2Cache	512 KB	{}	
ProcessorL3Cache	3072 KB	{}	
BootList	UEFI BOOT	{Legacy, Uefi}	
BootSequence	{Windows Boot Manager, UEFI: Generic Flash Disk 8.07, UEFI: Samsung SSD 860 EVO mSATA 1TB}		
LegacyOrom	Disabled	{Disabled, Enabled}	
EmbNic1	EnabledPxe	{Disabled, Enabled, EnabledPxe}	
UefiNwStack	Disabled	{Enabled, Disabled}	
LptMode	At	{Disabled, At, Ps2, Ecp}	
Serial1	Com1	{Disabled, Com1, Com2, Com3...}	
EmbSataRaid	Raid	{Disabled, Ahci, Raid}	
Sata0	Enabled	{Enabled, Disabled}	
Sata1	Enabled	{Enabled, Disabled}	
Sata2	Enabled	{Enabled, Disabled}	
Sata3	Enabled	{Enabled, Disabled}	
SmartErrors	Disabled	{Enabled, Disabled}	
UsbPowerShare	Disabled	{Disabled, Enabled}	
IntegratedAudio	Enabled	{Enabled, Disabled, Auto}	
Microbono	Enabled	{Enabled, Disabled}	

To get BIOS info remote computer

Get-BIOS -Computer "CB"

```
PS C:\Users\Administrator.RAMLAN> Get-BIOS -Computer CB

cmdlet Get-Credential at command pipeline position 1
Supply values for the following parameters:
Credential
```

Windows PowerShell credential request   ?   X

Enter your credentials.

User name: administrator
Password: •••••••••

OK   Cancel

Administrator: Windows PowerShell

```
Setting         : BIOSVersion
Value           : A18
Possible values : {}
PSComputerName  : CB
RunspaceId      : 7e42aaa9-9c3a-43ea-b7ec-283cbe0ec994

Setting         : SvcTag
Value           : J0V9F12
Possible values : {}
PSComputerName  : CB
RunspaceId      : 7e42aaa9-9c3a-43ea-b7ec-283cbe0ec994

Setting         : Asset
Value           :
Possible values : {}
PSComputerName  : CB
RunspaceId      : 7e42aaa9-9c3a-43ea-b7ec-283cbe0ec994

Setting         : OwnershipTag
Value           :
Possible values : {}
PSComputerName  : CB
RunspaceId      : 7e42aaa9-9c3a-43ea-b7ec-283cbe0ec994

Setting         : ManufactureDate
Value           : 06-02-2014
Possible values : {}
PSComputerName  : CB
RunspaceId      : 7e42aaa9-9c3a-43ea-b7ec-283cbe0ec994

Setting         : OwnershipDate
Value           : 06-11-2014
Possible values : {}
PSComputerName  : CB
RunspaceId      : 7e42aaa9-9c3a-43ea-b7ec-283cbe0ec994

Setting         : ExpressServiceCode
Value           : 41411371862
Possible values : {}
PSComputerName  : CB
RunspaceId      : 7e42aaa9-9c3a-43ea-b7ec-283cbe0ec994

Setting         : MemoryInstalled
Value           : 16.0 GB
Possible values : {}
PSComputerName  : CB
RunspaceId      : 7e42aaa9-9c3a-43ea-b7ec-283cbe0ec994

Setting         : MemoryAvailable
Value           : 0.4 GB
Possible values : {}
PSComputerName  : CB
RunspaceId      : 7e42aaa9-9c3a-43ea-b7ec-283cbe0ec994

Setting         : MemoryTechnology
Value           : DDR3
Possible values : {}
PSComputerName  : CB
RunspaceId      : 7e42aaa9-9c3a-43ea-b7ec-283cbe0ec994

Setting         : DIMMASize
Value           : 8192MB
Possible values : {}
PSComputerName  : CB
RunspaceId      : 7e42aaa9-9c3a-43ea-b7ec-283cbe0ec994
```

```
PS C:\Users\Administrator.RAMLAN> Get-BIOS -Computer CB -showgridview

cmdlet Get-Credential at command pipeline position 1
Supply values for the following parameters:
Credential
```

$Get_BIOS_Settings | out-gridview

Filter

+ Add criteria ▼

Setting	Value	Possible values	PSComputerName
AdvancedBatteryChargeC...	{Monday, Tuesday, Wednesday, Thursday...}		CB
UsbWake	Disabled	{Disabled, Enabled}	CB
WakeOnAc	Disabled	{Disabled, Enabled}	CB
WlanAutoSense	Enabled	{Enabled, Disabled}	CB
WwanAutoSense	Enabled	{Enabled, Disabled}	CB
WakeOnLan	LanOnly	{LanOnly, Disabled, WlanOnly, LanWlan}	CB
BlockSleep	Disabled	{Enabled, Disabled}	CB
PrimaryBattChargeCfg	Adaptive	{Adaptive, Standard, Express, PrimAcUse...}	CB
CustomChargeStart	50	{50-95}	CB
CustomChargeStop	90	{55-100}	CB
SliceBattChargeCfg	Express	{Standard, Express}	CB
IntlSmartConnect	Disabled	{Enabled, Disabled}	CB
PowerWarn	Enabled	{Enabled, Disabled}	CB
Keypad	EnabledByFnKey	{EnabledByNumLock, EnabledByFnKey}	CB
PntDevice	Touchpad	{SerialMouse, Ps2Mouse, Touchpad}	CB
NumLock	Enabled	{Enabled, Disabled}	CB
ExternalHotKey	Enabled	{Enabled, Disabled}	CB
RptKeyErr	Enabled	{Enabled, Disabled}	CB
Fastboot	Minimal	{Minimal, Thorough, Auto}	CB
PostMebxKey	Enabled	{Disabled, Enabled}	CB
Virtualization	Enabled	{Enabled, Disabled}	CB
VtForDirectlo	Enabled	{Enabled, Disabled}	CB
TrustExecution	Enabled	{Enabled, Disabled}	CB
WirelessSwitchCellularCtrl	Enabled	{Enabled, Disabled}	CB
WirelessSwitchWlanOnlyCtrl	Enabled	{Enabled, Disabled}	CB
WirelessSwitchBluetoothCtrl	Enabled	{Enabled, Disabled}	CB
WirelessSwitchWiGigCtrl	Enabled	{Enabled, Disabled}	CB
WirelessWwan	Enabled	{Enabled, Disabled}	CB
WirelessLan	Enabled	{Enabled, Disabled}	CB
BluetoothDevice	Enabled	{Enabled, Disabled}	CB
AllowBiosDowngrade	Enabled	{Disabled, Enabled}	CB
ForcedNetworkFlag	TBD	{}	CB

Pretty useful if you want to upgrade BIOS.

Thanks

Ram
18th June 2023