Chapter 20 Lab

Create a new function in your existing PSHTools module. Name the new function Get-ComputerVolumeInfo. This function’s output is going to include some information that your other functions already produce, but this particular function is going to combine them all into a single, hierarchical object.

This function should accept one or more computer names on a –ComputerName parameter. Do not worry about error handling at this time. The output of this function should be a custom object with the following properties:

* ComputerName
* OSVersion (Version from Win32\_OperatingSystem)
* SPVersion (ServicePackMajorVersion from Win32\_OperatingSystem)
* LocalDisks (all instances of Win32\_LogicalDisk having a DriveType of 3)
* Services (all instances of Win32\_Service)
* Processes (all instances of Win32\_ProcessS)

The function will therefore be making at least 4 WMI queries to each specified computer.

Here is one possible solution:

Function Get-ComputerVolumeInfo {

[cmdletbinding()]

Param(

[parameter(Position=0,mandatory=$True,

HelpMessage="Please enter a computername")]#

[ValidateNotNullorEmpty()]

[string[]]$Computername

)

Process {

Foreach ($computer in $Computername) {

Write-Verbose "Processing $computer"

$params=@{Computername=$Computer;class="Win32\_OperatingSystem"}

Write-Verbose "Getting data from $($params.class)"

#splat the parameters to the cmdlet

$os = Get-WmiObject @params

$params.Class="Win32\_Service"

Write-Verbose "Getting data from $($params.class)"

$services = Get-WmiObject @params

$params.Class="Win32\_Process"

Write-Verbose "Getting data from $($params.class)"

$procs = Get-WmiObject @params

$params.Class="Win32\_LogicalDisk"

Write-Verbose "Getting data from $($params.class)"

$params.Add("filter","drivetype=3")

$disks = Get-WmiObject @params

New-Object -TypeName PSObject -property @{

Computername=$os.CSName

Version=$os.version

SPVersion=$os.servicepackMajorVersion

Services=$services

Processes=$procs

Disks=$disks

}

} #foreach computer

}

}

Get-ComputerVolumeInfo localhost