

WireDiver

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[← Previous](#) [Next →](#)

Disable Windows Defender in powershell – a script to finally get rid of it

Once again, after a Windows update, Windows Defender activated itself again. It finally bothered me enough to take an actual look at how to disable it permanently and reliably, in a fully automated way (a PowerShell script), on my Windows 10 20H2 (build 19042).

WARNING (please read me):

This script is not intended as a “stop/start”

Table of Contents

- [Registry configuration](#)
- [Disable Defender: the Microsoft way](#)
 - [DisableAntiSpyware](#)
 - [GPO](#)
 - [Temporary solution](#)
- [Disable Defender: the hacker way](#)
 - [How it works](#)

solution. It aims at disabeling permanently windows defender, even removing its files if you chose to. I made it as a malware analyst, for my usage, and decided to share it to help others. The “general public” might find another, easier to use solution that suit their need better. I would also add that some alternative working solutions have been added in the comments of this article (many thanks to their writers !) : it’s definitely worth checking.

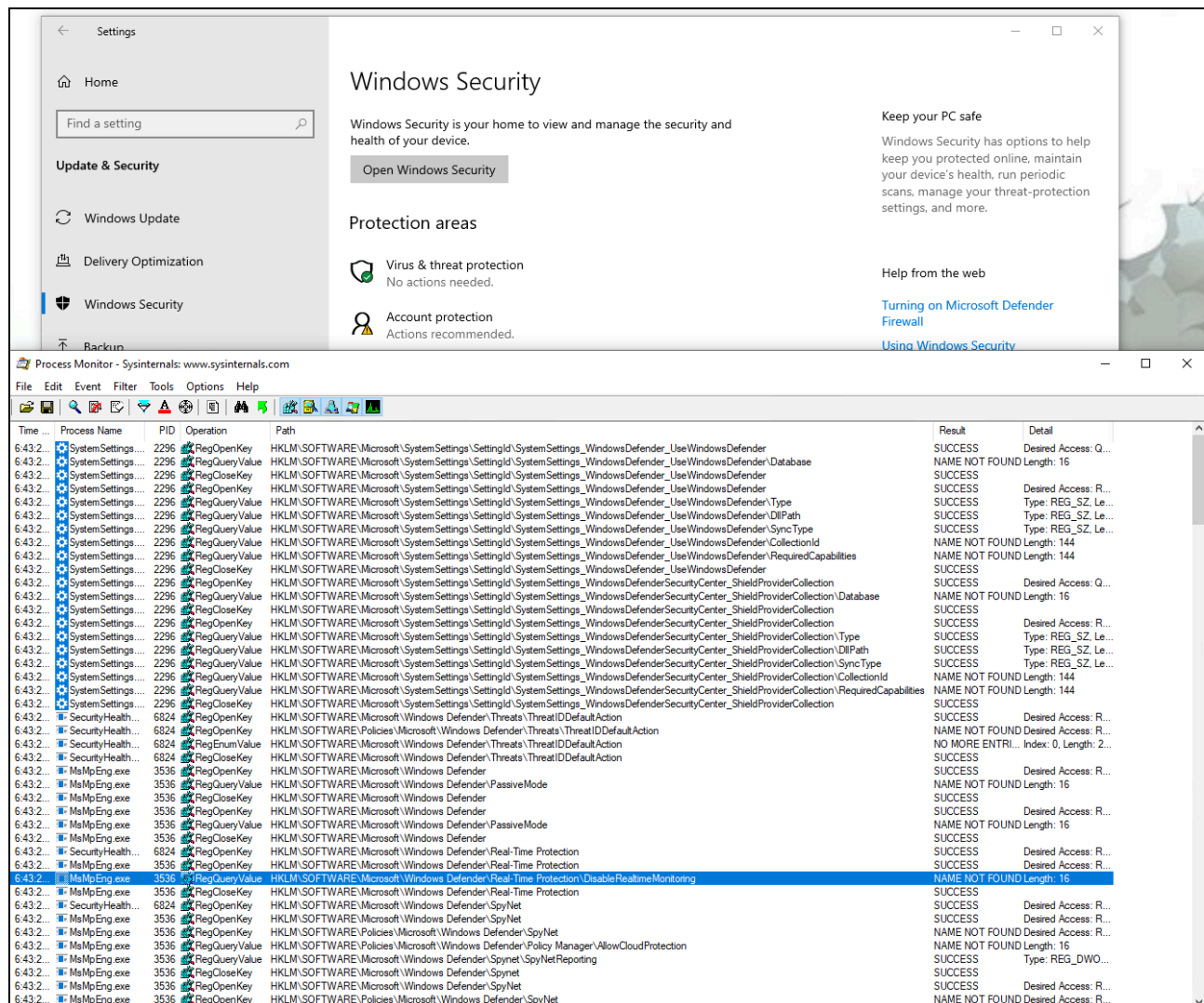
▪ [Scripting in PowerShell](#)

TL;DR : the final script can be found here :
<https://github.com/jeremybeaume/tools/blob/master/disable-defender.ps1>

Registry configuration

First, I took some time to look at the registry configuration, where are the parameters located, and how/when the values were changed. `Procmon`, from SysInternals, is a very convenient tool for this kind of research.

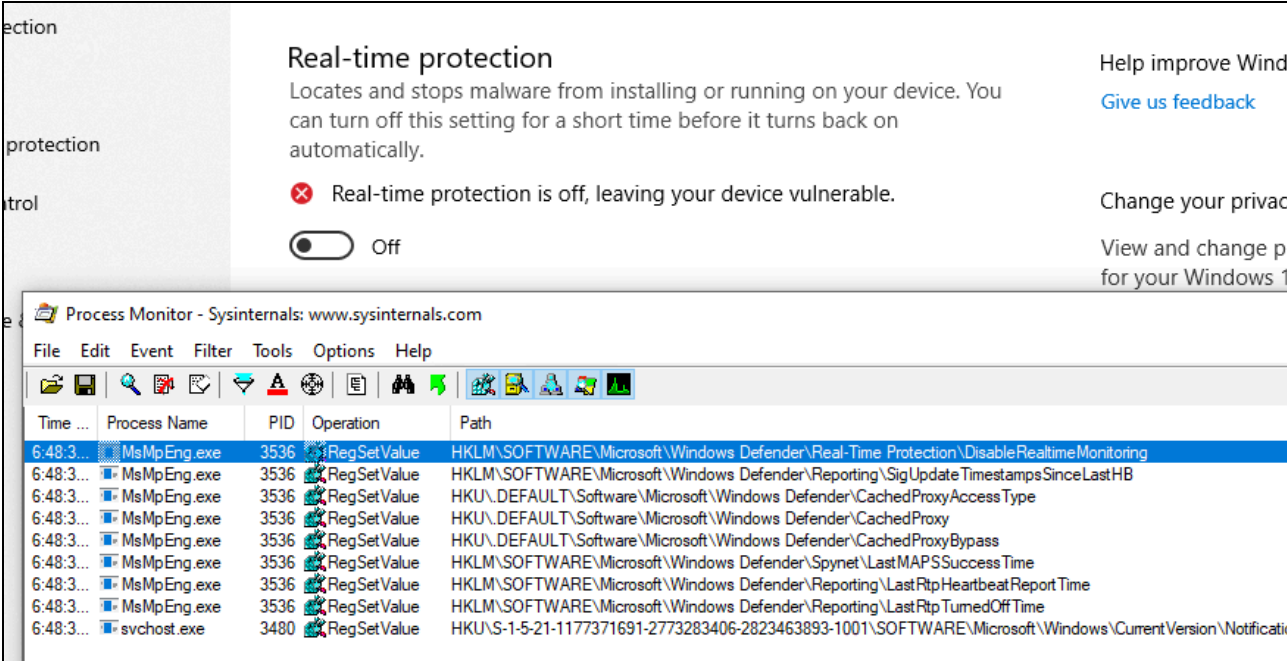
I looked for registry access with “Defender” in the path, and this is the result:



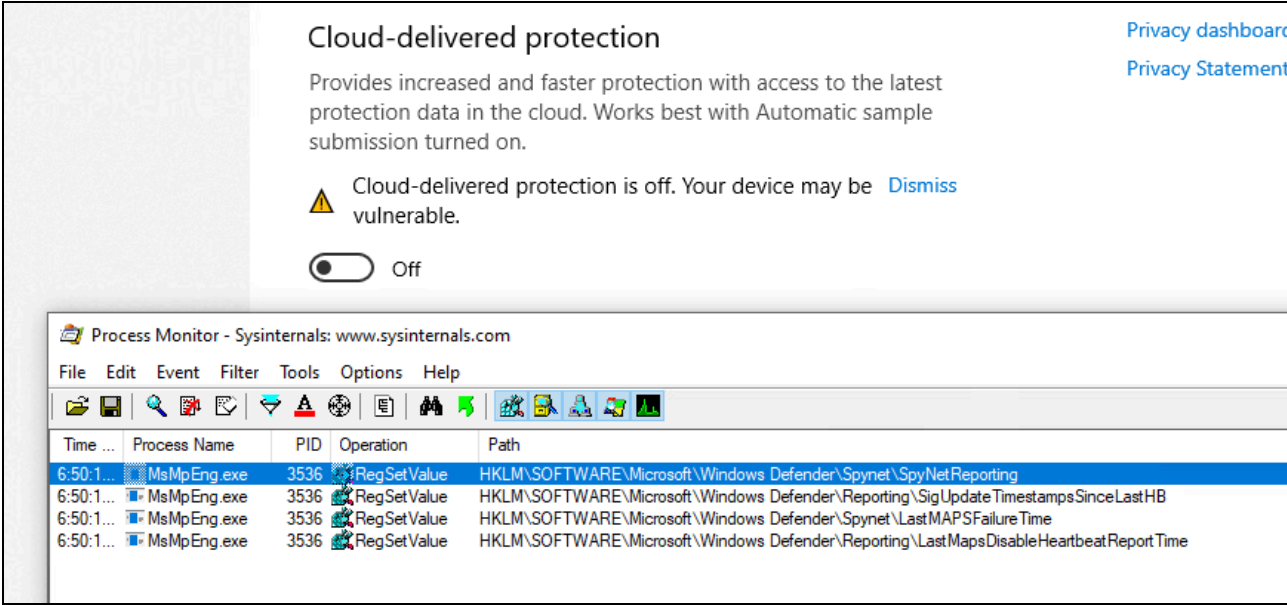
We get a first idea of the configuration location, most interesting keys seems to be under `HKLM\SOFTWARE\Microsoft\Windows Defender`.

Then I proceeded to check the keys for each parameter.

First on the list is the “Real-Time protection”, modifying the key `HKLM\SOFTWARE\Microsoft\Windows Defender\Real-Time Protection\DisableRealtimeMonitoring`



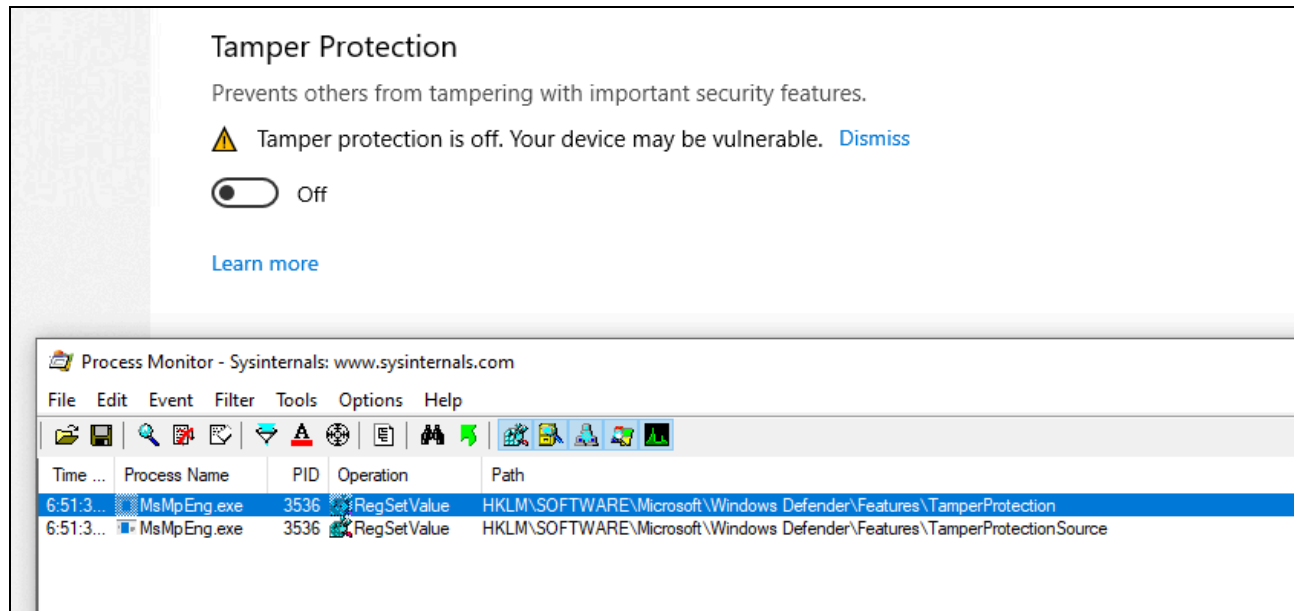
Then the “cloud-delivered protection”, with the key `HKLM\SOFTWARE\Microsoft\Windows Defender\SpyNet\SpyNetReporting` :



(For reference, the key for “Automatic sample submission” is `HKLM\SOFTWARE\Microsoft\Windows Defender\SpyNet\SubmitSampleConsent`)

The “Tamper Protection” is next, using 2 keys: `HKLM\SOFTWARE\Microsoft\Windows Defender\Features\TamperProtection` (4 when disabled) and

HKLM\SOFTWARE\Microsoft\Windows Defender\Features\TamperProtectionSource (2 when disabled)



And lastly, exclusions are stored in subkeys of HKLM\SOFTWARE\Microsoft\Windows Defender\Exclusions depending on their type:

Exclusions

Add or remove items that you want to exclude from Microsoft Defender Antivirus scans.

[Have a question?](#)
[Get help](#)

[Help improve Windows Security](#)
[Give us feedback](#)

[Change your privacy settings](#)
View and change privacy settings for your Windows 10 device.

[Add an exclusion](#)

C:\
Folder

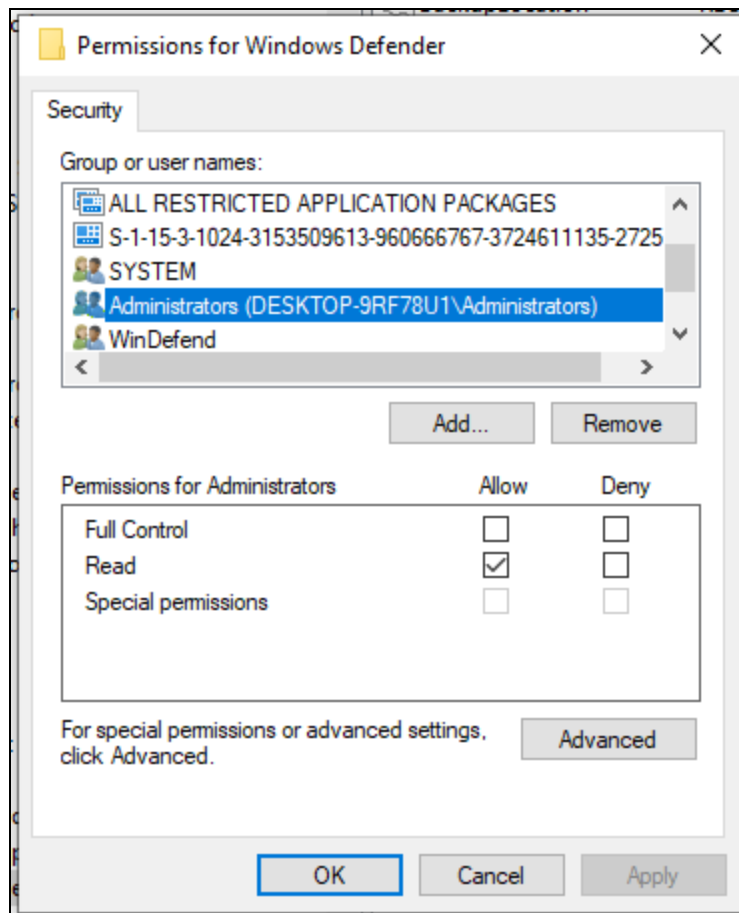
Process Monitor - Sysinternals: www.sysinternals.com

File Edit Event Filter Tools Options Help

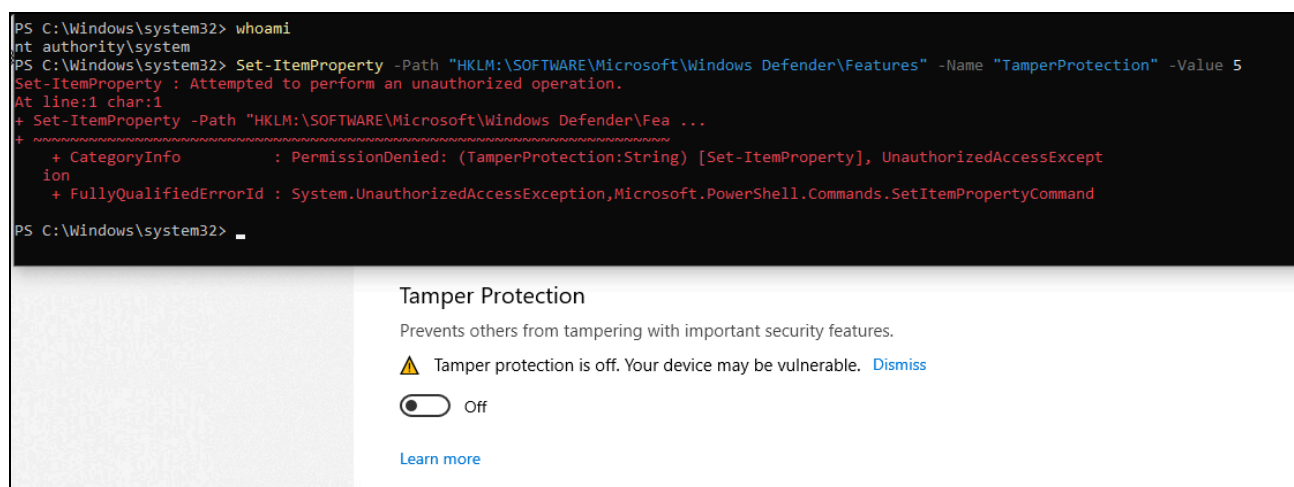
| Time ... | Process Name | PID | Operation | Path | Result | Detail |
|-----------|-------------------|------|-------------|---|---------|----------------------|
| 6:55:1... | MsMpEng.exe | 3536 | RegOpenKey | HKLM\SOFTWARE\Microsoft\Windows Defender\Exclusions\Paths | SUCCESS | Desired Access: R... |
| 6:55:1... | MsMpEng.exe | 3536 | RegSetValue | HKLM\SOFTWARE\Microsoft\Windows Defender\Exclusions\Paths\C:\ | SUCCESS | Type: REG_DWO... |
| 6:55:1... | MsMpEng.exe | 3536 | RegCloseKey | HKLM\SOFTWARE\Microsoft\Windows Defender\Exclusions\Paths | SUCCESS | |
| 6:55:1... | SecurityHealth... | 6824 | RegCloseKey | HKLM\SOFTWARE\Microsoft\Windows Defender\Exclusions\Paths | SUCCESS | |
| 6:55:1... | MsMpEng.exe | 3536 | RegOpenKey | HKLM\SOFTWARE\Microsoft\Windows Defender\ | SUCCESS | Desired Access: Q... |
| 6:55:1... | MsMpEng.exe | 3536 | RegQueryKey | HKLM\SOFTWARE\Microsoft\Windows Defender | SUCCESS | Query: Cached, Su... |
| 6:55:1... | MsMpEng.exe | 3536 | RegCloseKey | HKLM\SOFTWARE\Microsoft\Windows Defender | SUCCESS | |
| 6:55:1... | MsMpEng.exe | 3536 | RegOpenKey | HKLM\SOFTWARE\Microsoft\Windows Defender\ | SUCCESS | Desired Access: Q... |
| 6:55:1... | MsMpEng.exe | 3536 | RegQueryKey | HKLM\SOFTWARE\Microsoft\Windows Defender | SUCCESS | Query: Cached, Su... |
| 6:55:1... | MsMpEng.exe | 3536 | RegCloseKey | HKLM\SOFTWARE\Microsoft\Windows Defender | SUCCESS | |
| 6:55:1... | MsMpEng.exe | 3536 | RegOpenKey | HKLM\SOFTWARE\Microsoft\Windows Defender\Device Control | SUCCESS | Desired Access: Q... |
| 6:55:1... | MsMpEng.exe | 3536 | RegQueryKey | HKLM\SOFTWARE\Microsoft\Windows Defender\Device Control | SUCCESS | Query: Cached, Su... |
| 6:55:1... | MsMpEng.exe | 3536 | RegCloseKey | HKLM\SOFTWARE\Microsoft\Windows Defender\Device Control | SUCCESS | |
| 6:55:1... | MsMpEng.exe | 3536 | RegOpenKey | HKLM\SOFTWARE\Microsoft\Windows Defender\ | SUCCESS | Desired Access: Q... |

Showing 802 of 339,627 events (0.23%) Backed by virtual memory

Now, one thing to note is that the Administrator (meaning members of the BUILTIN\Administrators group) cannot change those keys (only SYSTEM can):



Even as SYSTEM, with tamper protection off, writing is still not authorized:



So here we are :

- There is not option to disable “Tamper Protection” in powershell (that’s the point).

- We can't edit the configuration directly in the registry, even as SYSTEM.

What I used to do was using `Set-MpPreference` to add whole drives as exception, but sometimes I would still get alerts : Defender is still running and analyzing my actions.

Of course, Microsoft provides ways and documentation to disable Defender, so let's check them out.

Disable Defender: the Microsoft way

DisableAntiSpyware

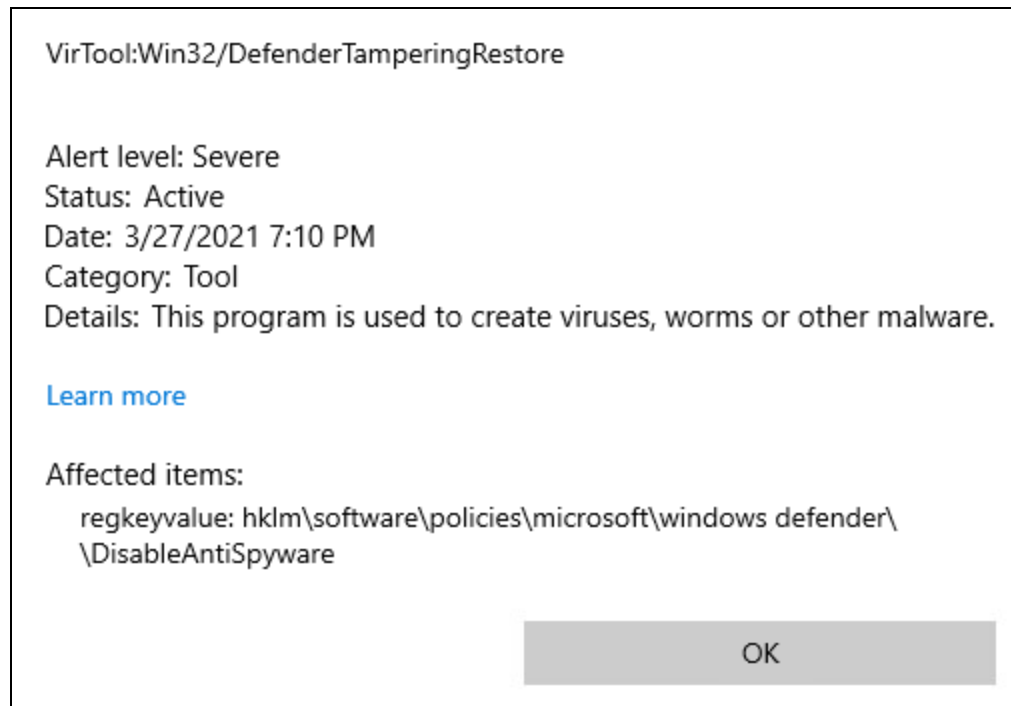
Searching on the internet (like .), there seems to be a registry key for that, named `DisableAntiSpyware`. It is indeed read when opening the configuration:

The screenshot is divided into two main sections. The top section shows the Windows Security interface, specifically the 'Virus & threat protection' settings. The left sidebar lists various security features, with 'Virus & threat protection' selected. The main area shows 'Current threats' as 'No current threats' and a 'Quick scan' button. The bottom section shows the Process Monitor tool from Sysinternals. The title bar reads 'Process Monitor - Sysinternals: www.sysinternals.com'. The menu bar includes 'File', 'Edit', 'Event', 'Filter', 'Tools', 'Options', and 'Help'. The toolbar contains various icons for file operations and system monitoring. The main window displays a table of system events. The first row is highlighted in blue and shows a 'RegQueryValue' operation performed by 'MsMpEng.exe' (PID 3536) on the path 'HKLM\SOFTWARE\Microsoft\Windows Defender\DisableAntiSpyware'. Subsequent rows show the same operation being performed by 'Explorer.EXE' (PID 4840) on the same path.

| Time ... | Process Name | PID | Operation | Path |
|-----------|--------------|------|---------------|--|
| 6:45:5... | MsMpEng.exe | 3536 | RegQueryValue | HKLM\SOFTWARE\Microsoft\Windows Defender\DisableAntiSpyware |
| 6:46:0... | Explorer.EXE | 4840 | RegQueryValue | HKLM\SOFTWARE\Policies\Microsoft\Windows Defender\DisableAntiSpyware |
| 6:46:0... | Explorer.EXE | 4840 | RegQueryValue | HKLM\SOFTWARE\Policies\Microsoft\Windows Defender\DisableAntiSpyware |
| 6:46:0... | Explorer.EXE | 4840 | RegQueryValue | HKLM\SOFTWARE\Policies\Microsoft\Windows Defender\DisableAntiSpyware |
| 6:46:0... | Explorer.EXE | 4840 | RegQueryValue | HKLM\SOFTWARE\Policies\Microsoft\Windows Defender\DisableAntiSpyware |
| 6:46:0... | Explorer.EXE | 4840 | RegQueryValue | HKLM\SOFTWARE\Policies\Microsoft\Windows Defender\DisableAntiSpyware |
| 6:46:0... | Explorer.EXE | 4840 | RegQueryValue | HKLM\SOFTWARE\Policies\Microsoft\Windows Defender\DisableAntiSpyware |
| 6:46:0... | Explorer.EXE | 4840 | RegQueryValue | HKLM\SOFTWARE\Policies\Microsoft\Windows Defender\DisableAntiSpyware |

2 Keys are read, one in the “main configuration” key, and one under `HKLM\SOFTWARE\Policies`. This second one, we can write, to let's go for it!

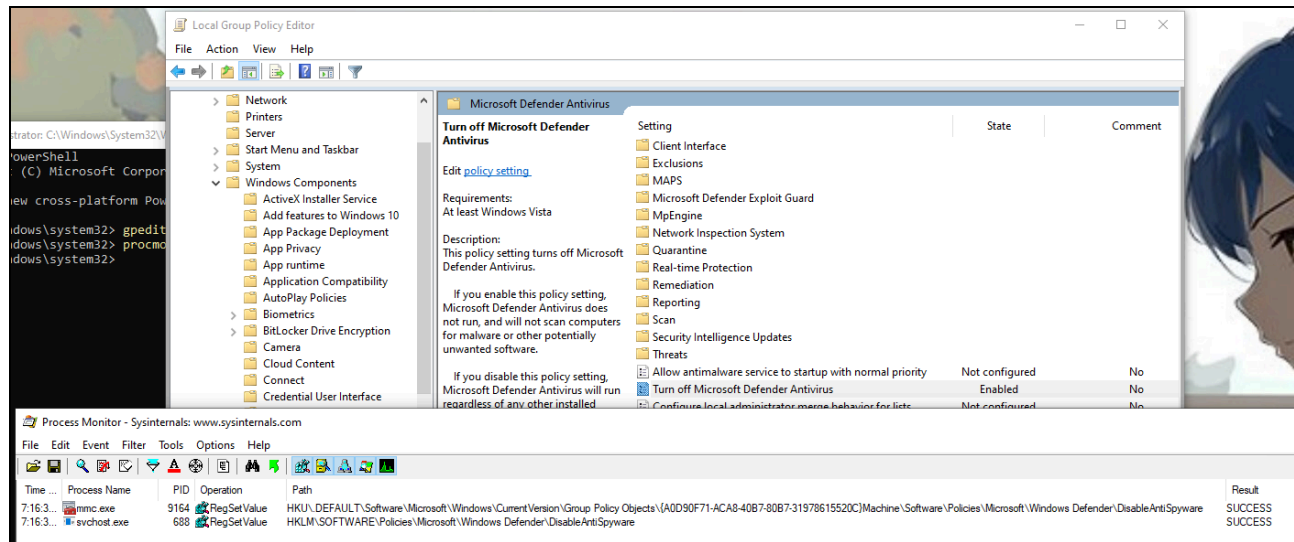
I created it, Defender was still running, without warning or anything, so it doesn't seem to have any effect. But it gets better, it is actually considered a Severe security alert!



Maybe we need to be more subtle, and use `gpedit` to edit this policy, let's try that!

GPO

Here is what we get when editing the policy with `gpedit` :



The previous key is actually written by a service (`svchost.exe -k netsvcs -p -s gpsvc`) and another one is written in a policy object. This time it doesn't raise a security alert, so the second key must be necessary. I also noted that a 3rd key is written when the tamper protection is off:

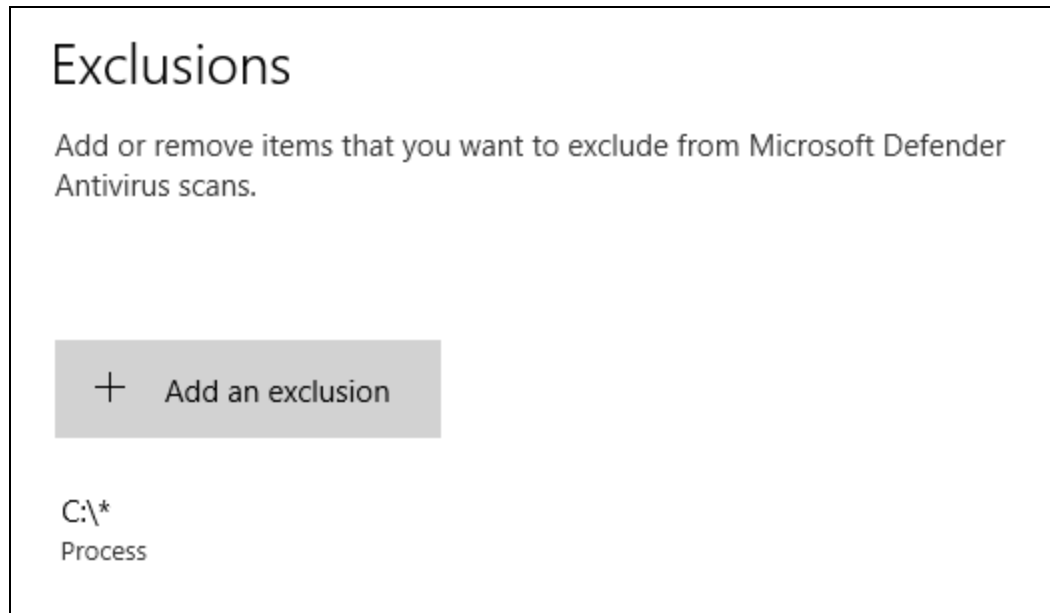
| Time of Day | Process Name | PID | Operation | Path |
|-----------------|--------------|------|--------------|--|
| 7:57:41.8239515 | cmd.exe | 800 | RegSet Value | HKU\S-1-5-21-1177271691-277283406-2023463893-1001\SOFTWARE\Microsoft\Windows\CurrentVersion\Group Policy Objects\{FBF7F1BE-84AC-47CA-836F-19F3CDBA209}\Machine\Software\Policies\Microsoft\Windows Defender\DisableAntiSpyware |
| 7:57:41.8593574 | svchost.exe | 952 | RegSet Value | HKLM\SOFTWARE\Policies\Microsoft\Windows Defender\DisableAntiSpyware |
| 7:57:42.7062287 | MsMpEng.exe | 3104 | RegSet Value | HKU\DEFAULT\Software\Microsoft\Windows\CurrentVersion\Group Policy Objects\{D80C0350-BD5C-4B4F-8133-C550C09584B2}\Machine\Software\Policies\Microsoft\Windows Defender\DisableAntiSpyware |

This 3rd key is written by `MsMpEng.exe` which happens to be the binary run by the Microsoft Defender service: this is the Defender userland engine. So, we should be good to go then?

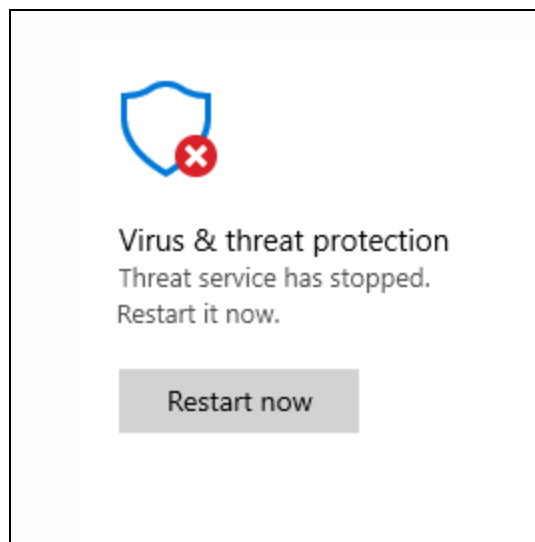
Well, nothing is disabled yet, and after reboot the policy is removed! So this seems to be completely ignored.

Temporary solution

I finally managed to disable it, by adding a process exclusion (including `regedit.exe`):



Then, with “Tamper Protection” off, and as SYSTEM, the key `HKLM\SOFTWARE\Microsoft\Windows Defender\DisableAntiSpyware` finally becomes writable. Setting its value to 1 immediately stops Windows Defender:

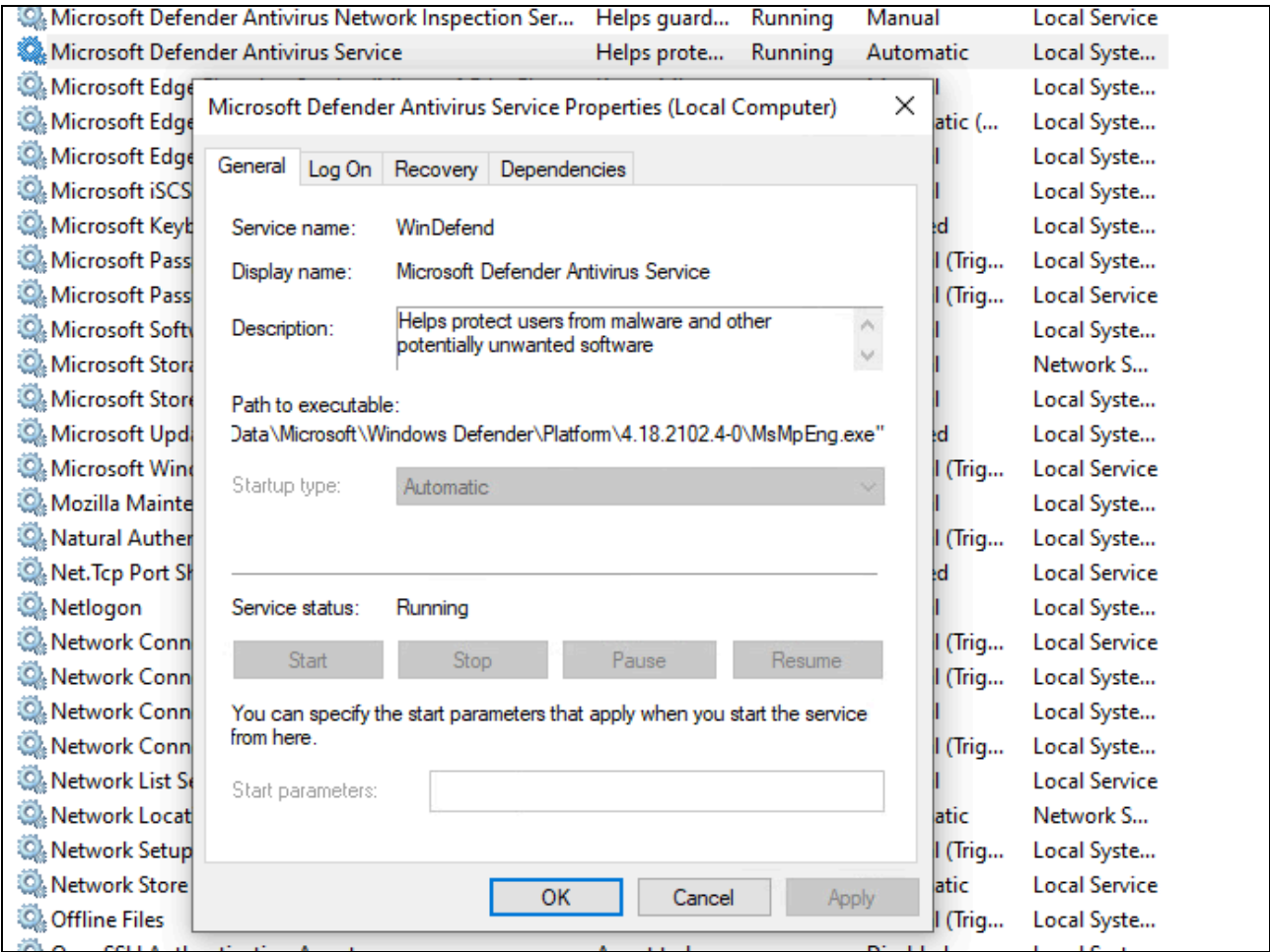


So here we are! But no 😊 This is still overwritten on reboot! This a good enough temporary solution, but as we need to disable the “Tamper Protection”, it cannot be scripted in PowerShell.

Disable Defender: the hacker way

How it works

So I did not found any way to configure Defender itself to stop running. But it actually runs in a Service, so maybe there is something there. The service cannot be modified using `services.msc` as we would usually do:







See how everything is greyed out?

We can also find the kernel drivers used by Defender, with `msinfo32`:

| | | | | | | |
|----------|---|---|------------------|-----|--------|---------|
| wdbboot | Microsoft Defender Antivirus Boot Driver | c:\windows\system32\drivers\wd\wdbboot.sys | Kernel Driver | No | Boot | Stopped |
| wdfilter | Microsoft Defender Antivirus Mini-Filter Driver | c:\windows\system32\drivers\wd\wdfilter.sys | File System D... | Yes | Boot | Running |
| wdnisdrv | Microsoft Defender Antivirus Network Inspection System Driver | c:\windows\system32\drivers\wd\wdnisdrv.sys | Kernel Driver | Yes | Manual | Running |

But, and that's what we're going to use : we can edit (at least for now) the registry keys associated to those services and drivers, in `HKLM\SYSTEM\CurrentControlSet\Services\`. We set they

Start value to 4, meaning “Disabled”, and after next reboot, the services and driver will not be loaded / started, and so Defender will not be working anymore ! And indeed, after the reboot :

| | | | | |
|---|--|----------------|----------|----------------|
|  | Microsoft App-V Client | Manages A... | Disabled | Local Syste... |
|  | Microsoft Defender Antivirus Network In... | Helps guard... | Disabled | Local Service |
|  | Microsoft Defender Antivirus Service | Helps prote... | Disabled | Local Syste... |
|  | Microsoft Edge Elevation Service (Micro... | Keeps Micr... | Manual | Local Syste... |

We're good to go, finally! It's weird that we can edit those registry keys, when `services.msc` doesn't let us modify the service, but well ... It works! Let's script the whole thing.

Scripting in PowerShell

I put everything in a convenient script that disables what it can directly in defender (`Set-MpPreference`), then modify the registry to disable the services, and set itself up to run again after reboot, to complete the removal. I'll break it down below.

First, I make sure to elevate to Administrator (mandatory, and actually used when the scripted is run after rebooting), and SYSTEM if `psexec` is available. SYSTEM is optional, but we need it to write in the registry to modify the parameters in case Defender would still re-enable itself one day (because it sure will ...).

```
if(-Not $($whoami) -eq "nt authority\system")) {  
    $IsSystem = $false  
  
    # Elevate to admin (needed when called after reboot)  
    if (-Not ([Security.Principal.WindowsPrincipal] [Security.Principal.WindowsIdentity]::GetCurrent()).IsInRole([Security.Principal.WindowsBuiltInRole]::Administrator))  
    {  
        Write-Host "    [i] Elevate to Administrator"  
        $CommandLine = "-ExecutionPolicy Bypass `" + $MyInvocation.MyCommand.Path +  
            Start-Process -FilePath PowerShell.exe -Verb Runas -ArgumentList $CommandLine  
        Exit  
    }  
  
    # Elevate to SYSTEM if psexec is available  
    $psexec_path = $(Get-Command PsExec -ErrorAction 'ignore').Source  
    if($psexec_path) {  
        Write-Host "    [i] Elevate to SYSTEM"  
        $CommandLine = "-i -s powershell.exe -ExecutionPolicy Bypass `" + $MyInvocation.MyCommand.Path +  
            Start-Process -WindowStyle Hidden -FilePath $psexec_path -ArgumentList $CommandLine  
        exit  
    } else {
```

```
20         Write-Host "    [i] PsExec not found, will continue as Administrator"
21     }
22
23 } else {
24     $IsSystem = $true
25 }
```

Then the script use the `Set-MpPreference` command to disable everything we can, adding exception for all drive later, and disabling all available engines.

```
1  67..90|foreach-object{
2      $drive = [char]$_
3      Add-MpPreference -ExclusionPath "$($drive):\" -ErrorAction SilentlyContinue
4      Add-MpPreference -ExclusionProcess "$($drive):*" -ErrorAction SilentlyContinue
5  }
6
7  Write-Host "    [+] Disable scanning engines (Set-MpPreference)"
8
9  Set-MpPreference -DisableArchiveScanning 1 -ErrorAction SilentlyContinue
10 Set-MpPreference -DisableBehaviorMonitoring 1 -ErrorAction SilentlyContinue
11 Set-MpPreference -DisableIntrusionPreventionSystem 1 -ErrorAction SilentlyContinue
12 Set-MpPreference -DisableIOAVProtection 1 -ErrorAction SilentlyContinue
13 Set-MpPreference -DisableRemovableDriveScanning 1 -ErrorAction SilentlyContinue
14 Set-MpPreference -DisableBlockAtFirstSeen 1 -ErrorAction SilentlyContinue
15 Set-MpPreference -DisableScanningMappedNetworkDrivesForFullScan 1 -ErrorAction SilentlyContinue
16 Set-MpPreference -DisableScanningNetworkFiles 1 -ErrorAction SilentlyContinue
17 Set-MpPreference -DisableScriptScanning 1 -ErrorAction SilentlyContinue
18 Set-MpPreference -DisableRealtimeMonitoring 1 -ErrorAction SilentlyContinue
19
20 Write-Host "    [+] Set default actions to Allow (Set-MpPreference)"
21
22 Set-MpPreference -LowThreatDefaultAction Allow -ErrorAction SilentlyContinue
23 Set-MpPreference -ModerateThreatDefaultAction Allow -ErrorAction SilentlyContinue
24 Set-MpPreference -HighThreatDefaultAction Allow -ErrorAction SilentlyContinue
```

Then the services and drivers are disabled, and the script checks if it need to reboot :

```
$need_reboot = $false

# WdNisSvc Network Inspection Service
# WinDefend Antivirus Service
# Sense : Advanced Protection Service
```



```
7
8 $svc_list = @("WdNisSvc", "WinDefend", "Sense")
9 foreach($svc in $svc_list) {
10     if($(Test-Path "HKLM:\SYSTEM\CurrentControlSet\Services\$svc")) {
11         if( $(Get-ItemProperty -Path "HKLM:\SYSTEM\CurrentControlSet\Services\$svc")
12             Write-Host "          [i] Service $svc already disabled"
13         } else {
14             Write-Host "          [i] Disable service $svc (next reboot)"
15             Set-ItemProperty -Path "HKLM:\SYSTEM\CurrentControlSet\Services\$svc" -N
16             $need_reboot = $true
17         }
18     } else {
19         Write-Host "          [i] Service $svc already deleted"
20     }
21 }
22
23 Write-Host "      [+] Disable drivers"
24
25 # WdnisDrv : Network Inspection System Driver
26 # wdfilter : Mini-Filter Driver
27 # wdboot : Boot Driver
28
29 $drv_list = @("WdnisDrv", "wdfilter", "wdboot")
30 foreach($drv in $drv_list) {
31     if($(Test-Path "HKLM:\SYSTEM\CurrentControlSet\Services\$drv")) {
32         if( $(Get-ItemProperty -Path "HKLM:\SYSTEM\CurrentControlSet\Services\$drv")
33             Write-Host "          [i] Driver $drv already disabled"
34         } else {
35             Write-Host "          [i] Disable driver $drv (next reboot)"
36             Set-ItemProperty -Path "HKLM:\SYSTEM\CurrentControlSet\Services\$drv" -N
37             $need_reboot = $true
38         }
39     } else {
40         Write-Host "          [i] Driver $drv already deleted"
41     }
42 }
43
44 # Check if service running or not
45 if($(GET-Service -Name WinDefend).Status -eq "Running") {
46     Write-Host "      [+] WinDefend Service still running (reboot required)"
47     $need_reboot = $true
48 } else {
49     Write-Host "      [+] WinDefend Service not running"
50 }
```

To execute after reboot, a shortcut is added in `C:\ProgramData\Microsoft\Windows\Start Menu\Programs\StartUp\`, and deleted after use.

```
1 $link_reboot = "C:\ProgramData\Microsoft\Windows\Start Menu\Programs\StartUp\disable
2 Remove-Item -Force "$link_reboot" -ErrorAction 'ignore' # Remove the link (only exec
3
4 if($need_reboot) {
5     Write-Host "    [+] This script will be started again after reboot." -Background
6
7     $powershell_path = "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
8     $cmdargs = "-ExecutionPolicy Bypass `" + $MyInvocation.MyCommand.Path + "`" +
9
10    $res = New-Item $(Split-Path -Path $link_reboot -Parent) -ItemType Directory -Fo
11    $WshShell = New-Object -comObject WScript.Shell
12    $shortcut = $WshShell.CreateShortcut($link_reboot)
13    $shortcut.TargetPath = $powershell_path
14    $shortcut.Arguments = $cmdargs
15    $shortcut.WorkingDirectory = "$(Split-Path -Path $PSScriptRoot -Parent)"
16    $shortcut.Save()
```

Finally, if we don't need to reboot, we can finish cleaning up : configure the registry, and delete the files if we wish to :

```
    } else {
        if($IsSystem) {

            # Configure the Defender registry to disable it (and the TamperProtection)
            # editing HKLM:\SOFTWARE\Microsoft\Windows Defender\ requires to be SYSTEM

            Write-Host "    [+] Disable all fonctionnalities with registry keys (SYSTEM

            # Cloud-delivered protection:
            Set-ItemProperty -Path "HKLM:\SOFTWARE\Microsoft\Windows Defender\Real-Time
            # Automatic Sample submission
            Set-ItemProperty -Path "HKLM:\SOFTWARE\Microsoft\Windows Defender\Real-Time
            # Tamper protection
            Set-ItemProperty -Path "HKLM:\SOFTWARE\Microsoft\Windows Defender\Features"

            # Disable in registry
            Set-ItemProperty -Path "HKLM:\SOFTWARE\Microsoft\Windows Defender" -Name Dis
            Set-ItemProperty -Path "HKLM:\SOFTWARE\Policies\Microsoft\Windows Defender"

        } else {
```

```
21     Write-Host "    [W] (Optional) Cannot configure registry (not SYSTEM)"
22 }
23
24
25 if($MyInvocation.UnboundArguments -And $($MyInvocation.UnboundArguments.ToLower(
26
27     # Delete Defender files
28
29     function Delete-Show-Error {
30         $path_exists = Test-Path $args[0]
31         if($path_exists) {
32             Remove-Item -Recurse -Force -Path $args[0]
33         } else {
34             Write-Host "    [i] $($args[0]) already deleted"
35         }
36     }
37
38     Write-Host ""
39     Write-Host "[+] Delete Windows Defender (files, services, drivers)"
40
41     # Delete files
42     Delete-Show-Error "C:\ProgramData\Windows\Windows Defender\"
43     Delete-Show-Error "C:\ProgramData\Windows\Windows Defender Advanced Threat P
44
45     # Delete drivers
46     Delete-Show-Error "C:\Windows\System32\drivers\wd\"
47
48     # Delete service registry entries
49     foreach($svc in $svc_list) {
50         Delete-Show-Error "HKLM:\SYSTEM\CurrentControlSet\Services\$svc"
51     }
52
53     # Delete drivers registry entries
54     foreach($drv in $drv_list) {
55         Delete-Show-Error "HKLM:\SYSTEM\CurrentControlSet\Services\$drv"
56     }
57 }
58 }
59
60 Write-Host ""
61 Read-Host -Prompt "Press any key to continue"
```

And we are done ! Final result can be downloaded here :
<https://github.com/jeremybeaume/tools/blob/master/disable-defender.ps1>

It can be executed from anywhere in the file system. The parameter `-Delete` will delete the files linked to Defender after reboot. And it should work fine, until the Tamper Protection also protects the services registry key, which is bound to happen someday. I'm actually surprised it doesn't already ...

This entry was posted in [Tooling](#) and tagged [antivirus](#), [powershell](#) by [Jeremy](#). Bookmark the [permalink](#).

18 THOUGHTS ON "DISABLE WINDOWS DEFENDER IN POWERSHELL – A SCRIPT TO FINALLY GET RID OF IT"

[CRC](#) on [8 August 2024 at 16:29](#) said:

Worked, thank you been looking for a fix.

Reply ↓

Jman on [14 April 2024 at 13:56](#) said:

Can you confirm If I did this correctly.

After using this script as best I could (I just ran it a handful of times in safe mode), now there is the usual windows defender icon in my system tray that has a red x.

In defender it says: "Your virus and threat protection is managed by your organization" With a red X saying "No active anti-virus provider"...

Does this mean I did it correctly? I see the Defender folders still in Program Files, & thought they would be deleted.

Reply ↓

[G Slayden](#) on [7 April 2023 at 10:37](#) said:

Seems like you could have—just once—done a "Recovery" boot to get into the WindowsPE Recovery Environment, which gives easy access to the whole "real" registry hive while it's in an unprotected (and unchanging "frozen") state.

So then you could trivially make any kind of changes either with the offline REG.EXE at that point, or even load the whole “real” hive into RE, for full-blown editing by having the RE environment host it, by using *it’s own* “toy” hive... I do it all the time....

Reply ↓

Dan on **24 January 2023 at 04:30** said:

hi there, I’m on windows 10 and I’ve disabled Windows Update and set the execution policy, rebooted into safemode and while debugging the script, this is what I see:
basically permission denied despite having elevated permissions

```
[+] Disable Windows Defender (as nt authority\system)
[+] Add exclusions
[+] Disable scanning engines (Set-MpPreference)
[+] Set default actions to Allow (Set-MpPreference)
[+] Disable services
[i] Disable service WdNisSvc (next reboot)
Set-ItemProperty : Attempted to perform an unauthorized
operation.
At C:\users\desei\disable-defender.ps1:114 char:13
+ ~~~~~
+ ~~~~~
+ CategoryInfo          : PermissionDenied: (Start:String) [Set-
ItemProperty], UnauthorizedAccessException
+ FullyQualifiedErrorId :
System.UnauthorizedAccessException,Microsoft.PowerShe
ll.Commands.SetItemPropertyCommand
```

```
[i] Disable service WinDefend (next reboot)
```

```
Set-ItemProperty : Attempted to perform an unauthorized
operation.
```

```
At C:\users\desei\disable-defender.ps1:114 char:13
```

```
+                Set-ItemProperty                -Path
"HKLM:\SYSTEM\CurrentControlSet\Se ...
```

```
+
```

```
~~~~~
~~~~~
```

```
+ CategoryInfo : PermissionDenied: (Start:String) [Set-
ItemProperty], UnauthorizedAccessException
```

```
+                FullyQualifiedErrorId                :
System.UnauthorizedAccessException,Microsoft.PowerShe
ll.Commands.SetItemPropertyCommand
```

```
[i] Service Sense already deleted
```

```
[+] Disable drivers
```

```
[i] Disable driver WdnisDrv (next reboot)
```

```
Set-ItemProperty : Attempted to perform an unauthorized
operation.
```

```
At C:\users\desei\disable-defender.ps1:135 char:13
```

```
+                Set-ItemProperty                -Path
"HKLM:\SYSTEM\CurrentControlSet\Se ...
```

```
+
```

```
~~~~~
~~~~~
```

```
+ CategoryInfo : PermissionDenied: (Start:String) [Set-
ItemProperty], UnauthorizedAccessException
```

```
+                FullyQualifiedErrorId                :
System.UnauthorizedAccessException,Microsoft.PowerShe
ll.Commands.SetItemPropertyCommand
```

```
[i] Disable driver wdfilter (next reboot)
```

```
Set-ItemProperty : Attempted to perform an unauthorized
operation.
```

```
At C:\users\desei\disable-defender.ps1:135 char:13
```



```
+          Set-ItemProperty          -Path
"HKLM:\SYSTEM\CurrentControlSet\Se ...
+
~~~~~
~~~~~
+ CategoryInfo          : PermissionDenied: (Start:String) [Set-
ItemProperty], UnauthorizedAccessException
+          FullyQualifiedErrorId          :
System.UnauthorizedAccessException,Microsoft.PowerShe
ll.Commands.SetItemPropertyCommand
```

[i] Disable driver wdboot (next reboot)

Set-ItemProperty : Attempted to perform an unauthorized operation.

At C:\users\desei\disable-defender.ps1:135 char:13

```
+          Set-ItemProperty          -Path
"HKLM:\SYSTEM\CurrentControlSet\Se ...
+
~~~~~
~~~~~
+ CategoryInfo          : PermissionDenied: (Start:String) [Set-
ItemProperty], UnauthorizedAccessException
+          FullyQualifiedErrorId          :
System.UnauthorizedAccessException,Microsoft.PowerShe
ll.Commands.SetItemPropertyCommand
```

[+] WinDefend Service still running (reboot required)

[+] This script will be started again after reboot.

Press any key to continue:

Reply ↓

Jack on **11 January 2023 at 13:14** said:

On Windows 11 psexec cannot be run in safe mode cause the service is not available. I have tried to have the service psexesvc in safe mode but without success. I have run it without psexec and work well but registry was edited manually 😊

Reply ↓

Johnny Smithy on **8 December 2022 at 04:19** said:

I tried doing what Doug said and running it in Safe Mode, Admin Elevated Powershell window with the set-executionpolicy remotesigned command enabled but Windows Defender always prevents it from running.

It used to work on previous versions of Windows 10 :/

Reply ↓

Johnny Smithy

on **9 December 2022 at 00:01** said:

I figured out what was the problem: I needed to disable Windows Updates completely before going into Safe Mode and running the script. Did that and it worked flawlessly, Defender is GONE.

Reply ↓

Nick on **10 July 2022 at 12:38** said:

for anyone having issues with this in 2022 it is due to windows defender itself preventing you from changing certain options.

Boot into safe mode (Hold shift and click restart)

Run powershell as Admin

run the command "set-executionpolicy remotesigned" (Allow scripts)

Place the script in C:\ drive and type

"cd c:\"

".\disableDefender.ps1"

Restart once told and its done.

Reply ↓

Lugan on **6 May 2022 at 01:35** said:

Look at first comment by Doug... he has the answer to make this work.

Finally the pesky windows defender has been disabled.
Never thought I'd see the day.

Reply ↓

xxx on **26 April 2022 at 12:41** said:

Does anyone have any idea what changed recently?

Reply ↓

Tony on [6 October 2021 at 22:23](#) said:

If you want this fully automated, recommend adding these three lines of code.

First command: Disabling UAC will allow the script to complete without the UAC elevation prompt that I'm seeing after restarting the machine and the script attempts to continue.

#Disable UAC

```
New-ItemProperty                                -Path  
HKLM:Software\Microsoft\Windows\CurrentVersion\policies\  
system -Name EnableLUA -PropertyType DWord -Value 0 -  
Force
```

Second command: is to restart computer. This should go after line 152

#Restart Computer

```
Restart-Computer -Force
```

Third command: re-enable UAC. This should go towards the end of the script, before the very last write-host and read-host commands.

#Enable UAC

```
New-ItemProperty                                -Path  
HKLM:Software\Microsoft\Windows\CurrentVersion\policies\  
system -Name EnableLUA -PropertyType DWord -Value 0 -  
Force
```

Reply ↓

GLIDERFROMNORTH on [5 October 2021 at 10:07](#) said:

Now I want a script to Enable Windows Defender, Undo all the changes that this script does..

Note I have made some changes where drivers are intact as this script delete the drivers.

please would you help me understand this or provide me with the script or explain this script or concept so that I can make a script to enable the windows defender or use one if you already have it.

Reply ↓

Jeremy

on **5 October 2021 at 19:36** said:

Hi, sorry for the inconvenience, but this script was never made or advertised for being a “start/stop” solution. I made it because I’m a malware analyst, and defender was being ... well let’s stay correct and just call it really annoying. Removing all its file was a sure way to make sure it would not delete the samples I was working on again.

I can’t think of a way to get the files back, you may need to reinstall or repair windows. I’ll add a warning on the article to avoid any further people making your mistake.

Best regards

Reply ↓

ROMULO CARLOS REIS ALVES on **17 August 2021 at 21:08** said:

Hello.

Your post help me to stop Defender on newer Win10 builds, and then I can run a script wich install a lot of software. If it helps, at beggining of my script I have these lines:

```
powershell -command add-mppreference -exclusionpath 'c:\'
powershell -command add-mppreference -exclusionprocess 'c:\'
powershell -command Set-MpPreference -EnableControlledFolderAccess Disabled
powershell -command Set-MpPreference -DisableBehaviorMonitoring 1
powershell -command Set-MpPreference -DisableRealtimeMonitoring 1
```

Then, like the friend stated above, I can use AdvancedRun to stop and disable the service:

```
advancedrun.exe /exefilename c:\windows\system32\net.exe /commandline 'stop windefend' /runas 8 /run
advancedrun.exe /exefilename c:\windows\system32\sc.exe /commandline 'config windefend start= disabled' /runas 8 /run
```

I still receive the warning about it is disabled, but for my propouses it's fine, as it re-enable Defender at the end of installations. My script now run flawless like before.

Thank you!

Reply ↓

jorge on **25 July 2021 at 15:37** said:

dont work

ps1 full of errors.

thanks anyway

Reply ↓

Mr David Fishwick on **11 July 2021 at 14:43** said:

Er is that really necessary, all that? Easier way to disable:

1. Turn off real time protection and tamper protection in the app.
2. Open Regedit. Navigate to HKLM/Software/Policies/Windows Defender. Place the DsiableAntiSpyware key in manually and set to 1.
3. Navigate to HKLM/System/CurrentControlSet/wscsvc. Change the start value to 4. This disables the Security Service on the next boot.
4. Restart. The Security Service fails to start and the Defender service stops running (eventually.....). Note that the DisableAntiSpyware key is NOT removed this time.
5. To re-enable security centre, change the Start value back to 2 and restart again.
6. Security will be re-enabled but Defender remains OFF. This persists until the DisableAntiSpyware key is removed manually.
7. To re-enable Defender, simply remove the DisableAntiSpyware key manually. Press the "Restart Now" under Virus and Threat Protection and Defender (and its service) will immediately turn back on.

Reply ↓

Jeremy

on **13 July 2021 at 19:23** said:

Hi ! Not "necessary" for sure, but I like to automate everything, and that's the solution I came with. But

doing it manually can be indeed quite simple, as you mentioned.

Reply ↓

Doug on **28 May 2021 at 08:26** said:

in latest insider build (21390), even elevation to SYSTEM is not enough to disable the services and drivers in registry, I had to use AdvancedRun from nirsoft to launch the script as TrustedInstaller to make it work...

Reply ↓

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