

# Jegyzőkönyv Operációs rendszerek

## 4. gyakorlat

2.feladat

Timkó András  
HVS05V  
ge-BGI

```
PS G:\EGYETEM\2021-22-2\OS\HZS05V0sGyak\HZS05V_0228> Get-Host | Select-Object Version
Version
-----
5.1.19041.1320
```

1. Kérdezze le a PowerShellVerzió!

```
PS G:\EGYETEM\2021-22-2\OS\HZS05V0sGyak\HZS05V_0228> date
28 February 2022 17:32:34
```

2. Kérdezze le a mai dátumot?

```
PS G:\EGYETEM\2021-22-2\OS\HZS05V0sGyak\HZS05V_0228> Get-Service
```

Status	Name	DisplayName
Stopped	AarSvc_13d0cc8	Agent Activation Runtime_13d0cc8
Running	AdobeARMSvc	Adobe Acrobat Update Service
Running	AGMSvc	Adobe Genuine Monitor Service
Running	AGSSvc	Adobe Genuine Software Integrity Se...
Stopped	AJRouterv	AllJoyn Router Service
Stopped	ALG	Application Layer Gateway Service
Stopped	AppIDSvc	Application Identity
Running	AppInfo	Application Information
Stopped	AppReadiness	App Readiness
Stopped	AppXSvc	AppX Deployment Service (AppXSVC)
Running	AudioEndpointBu...	Windows Audio Endpoint Builder
Running	AudioSrv	Windows Audio
Stopped	autotimesvc	Cellular Time
Stopped	AxInstSV	ActiveX Installer (AxInstSV)
Stopped	BcastDVRUserSer...	Játékvideo-rögzítő és Közvetítés fe...
Stopped	BDESVC	BitLocker Drive Encryption Service
Running	BFE	Base Filtering Engine
Running	BITS	Background Intelligent Transfer Ser...
Stopped	BluetoothUserSe...	Felhasználói Bluetooth-támogatási s...
Running	BrokerInfrastru...	Background Tasks Infrastructure Ser...
Stopped	BTAGService	Bluetooth Audio Gateway Service
Running	BthAvctpSvc	AVCTP service
Stopped	bthserv	Bluetooth Support Service
Running	camsvc	Capability Access Manager Service
Stopped	CaptureService_...	CaptureService_13d0cc8
Running	cbdhsvc_13d0cc8	Vágólap felhasználói szolgáltatás_1...
Running	CDPSvc	Connected Devices Platform Service
Running	CDPUserSvc_13d0cc8	Csatlakoztatott eszközök platformja...
Stopped	CertPropSvc	Certificate Propagation
Stopped	ClipSVC	Client License Service (ClipSVC)
Stopped	COMSysApp	COM+ System Application
Stopped	ConsentUxUserSv...	ConsentUX_13d0cc8
Running	CoreMessagingRe...	CoreMessaging
Stopped	cphs	Intel(R) Content Protection HECI Se...
Running	cpispcon	Intel(R) Content Protection HDCP Se...
Stopped	CredentialEnrol...	CredentialEnrollmentManagerUserSvc_...
Running	CryptSvc	Cryptographic Services
Running	DcomLaunch	DCOM Server Process Launcher
Stopped	defragsvc	Optimize drives
Stopped	DeviceAssociati...	DeviceAssociationBroker_13d0cc8
Running	DeviceAssociati...	Device Association Service
Stopped	DeviceInstall	Device Install Service
Stopped	DevicePickerUse...	DevicePicker_13d0cc8
Stopped	DevicesFlowUser...	DevicesFlow_13d0cc8
Stopped	DevQueryBroker	DevQuery Background Discovery Broker
Running	Dhcp	DHCP Client
Stopped	diagnosticshub...	Microsoft (R) Diagnostics Hub Stand...
Stopped	diagsvc	Diagnostic Execution Service
Running	DiagTrack	Connected User Experiences and Tele...
Running	DispBrokerDeskt...	Display Policy Service
Running	DisplayEnhancem...	Display Enhancement Service
Stopped	DmEnrollmentSvc	Device Management Enrollment Service
Stopped	dmwappushservice	Device Management Wireless Applicat...
Running	Dnscache	DNS Client
Running	DoSvc	Delivery Optimization
Stopped	dot3svc	Wired AutoConfig
Running	DPS	Diagnostic Policy Service
Running	DSASvc	Intel(R) Driver & Support Assistant
Running	DSASvcUpdateService	Intel(R) Driver & Support Assistant...

3. Kérdezze le a szolgáltatásokat?

```
PS C:\> Get-ChildItem
```

```
Directory: C:\
```

Mode	LastWriteTime	Length	Name
d-----	02/08/2021 18:49		Fr
d-----	20/02/2022 13:16		GA
d-----	30/01/2022 17:02		In
d-----	22/03/2021 14:15		L+
d-----	07/12/2019 10:14		Pe
d-r----	23/02/2022 20:25		Pr
d-r----	20/02/2022 13:08		Pr
d-----	20/07/2021 20:51		sw
d-r----	16/03/2021 16:27		Us
d-----	22/03/2021 14:05		We
d-----	13/02/2022 00:14		Wt

```
PS C:\>
```

```
PS C:\>
```

```
>> Get-Alias
```

CommandType	Name	Version	Source
Alias	% -> ForEach-Object		
Alias	? -> Where-Object		
Alias	ac -> Add-Content		
Alias	asnp -> Add-PSSnapin		
Alias	cat -> Get-Content		
Alias	cd -> Set-Location		
Alias	CFS -> ConvertFrom-String	3.1.0.0	Microsoft.PowerShell.Utility
Alias	chdir -> Set-Location		
Alias	clc -> Clear-Content		
Alias	clear -> Clear-Host		
Alias	clhy -> Clear-History		
Alias	cli -> Clear-Item		
Alias	clp -> Clear-ItemProperty		
Alias	cls -> Clear-Host		
Alias	clv -> Clear-Variable		
Alias	cnsn -> Connect-PSession		
Alias	compare -> Compare-Object		
Alias	copy -> Copy-Item		
Alias	cp -> Copy-Item		
Alias	cpi -> Copy-Item		
Alias	cpp -> Copy-ItemProperty		
Alias	curl -> Invoke-WebRequest		
Alias	cvpa -> Convert-Path		
Alias	dbp -> Disable-PSBreakpoint		
Alias	del -> Remove-Item		
Alias	diff -> Compare-Object		
Alias	dir -> Get-ChildItem		
Alias	dnsn -> Disconnect-PSession		
Alias	ebp -> Enable-PSBreakpoint		
Alias	echo -> Write-Output		
Alias	epal -> Export-Alias		
Alias	epcsv -> Export-Csv		
Alias	epsn -> Export-PSession		
Alias	erase -> Remove-Item		
Alias	etsn -> Enter-PSession		
Alias	exsn -> Exit-PSession		
Alias	fc -> Format-Custom		
Alias	fhex -> Format-Hex	3.1.0.0	Microsoft.PowerShell.Utility
Alias	fl -> Format-List		
Alias	foreach -> ForEach-Object		
Alias	ft -> Format-Table		
Alias	fw -> Format-Wide		
Alias	gal -> Get-Alias		
Alias	gbp -> Get-PSBreakpoint		
Alias	gc -> Get-Content		
Alias	gcb -> Get-Clipboard	3.1.0.0	Microsoft.PowerShell.Management
Alias	gci -> Get-ChildItem		
Alias	gcm -> Get-Command		
Alias	gcs -> Get-PSCallStack		
Alias	gdr -> Get-PSDrive		
Alias	ghy -> Get-History		
Alias	gi -> Get-Item		
Alias	gin -> Get-ComputerInfo	3.1.0.0	Microsoft.PowerShell.Management
Alias	gjb -> Get-Job		
Alias	gl -> Get-Location		
Alias	gm -> Get-Member		
Alias	gmo -> Get-Module		
Alias	gp -> Get-ItemProperty		
Alias	gps -> Get-Process		

4. Kérdezze le a C:\ meghajtó  
lévő könyvtárakat ill. fájlokat?

5. Kérdezze a parancsok rövidített  
neveit? (alias)

```
PS G:\EGYETEM\2021-22-2\OS\HZS05V0sGyak\HZS05V_0228> Set-Alias -Name processz
cmdlet Set-Alias at command pipeline position 1
Supply values for the following parameters:
Value: processz
PS G:\EGYETEM\2021-22-2\OS\HZS05V0sGyak\HZS05V_0228> processz
```

6. Készítsen egy „processz” nevű Alias, majd futtassa és kérdezze le?!

Handles	NPM(K)	PM(K)	WS(K)	CPU(s)	Id	SI	ProcessName
365	16	5156	14420		3208	0	AGMSvc
228	13	3176	11328		3200	0	AGSSvc
335	20	8504	27688	0.19	8720	2	ApplicationFrameHost
136	8	1264	5536		3152	0	armsvc
2396	70	159932	241180	56.19	2256	2	chrome
231	17	16872	45780	0.23	2388	2	chrome
312	9	1984	7480	0.05	2392	2	chrome
354	20	77724	128652	8.86	2836	2	chrome
211	13	7888	18020	0.27	6600	2	chrome
334	22	15268	37276	5.28	7692	2	chrome
645	33	119940	145228	13.92	8180	2	chrome
179	13	6800	15988	0.13	8428	2	chrome
232	17	20664	54552	0.92	9124	2	chrome
234	17	18512	48484	0.38	10440	2	chrome
231	17	19632	48272	0.47	10468	2	chrome
267	18	19356	51260	0.77	10476	2	chrome
226	16	17160	42576	0.20	10540	2	chrome
236	17	116104	152272	10.73	10548	2	chrome
241	17	43452	77292	3.27	10596	2	chrome
242	17	23356	56588	1.41	10688	2	chrome
250	17	21204	57884	0.86	10820	2	chrome
226	16	20520	48052	1.03	10888	2	chrome
226	16	27620	54752	1.77	10896	2	chrome
245	17	18696	47768	0.31	10960	2	chrome
230	17	17780	44632	0.28	11024	2	chrome
226	16	17160	42152	0.30	11124	2	chrome
324	20	44536	93584	3.48	11428	2	chrome

```
PS G:\EGYETEM\2021-22-2\OS\HZS05V0sGyak\HZS05V_0228> Get-WmiObject win32_service | select Name, DisplayName, State, PathName | Where-Object PathName -like C:\Windows\System32\svchost.exe
```

Name	DisplayName	State	PathName
ADRouter	AllJoyn Router Service	Stopped	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
ALG	Application Layer Gateway Service	Stopped	C:\Windows\System32\alg.exe
AppIDSvc	Application Identity	Stopped	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
AppInfo	Application Information	Running	C:\Windows\System32\svchost.exe -k netvcs -p
AppReadiness	App Readiness	Stopped	C:\Windows\System32\svchost.exe -k AppReadiness -p
AppSvc	App Deployment Service (AppXSvc)	Stopped	C:\Windows\System32\svchost.exe -k wscntfrg -p
AudioEndpointBuilder	Windows Audio Endpoint Builder	Running	C:\Windows\System32\svchost.exe -k LocalSystemNetworkRestricted -p
AudioSrv	Windows Audio	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
Autotimesvc	Cellular Time	Stopped	C:\Windows\System32\svchost.exe -k autoTimeSvc
AcInstSV	ActiveX Installer (AcInstSV)	Running	C:\Windows\System32\svchost.exe -k AutoTimeSvc
ROESVC	BitLocker Drive Encryption Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
BFE	Base Filtering Engine	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
BITS	Background Intelligent Transfer Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
BrokerInfrastructure	Background Tasks Infrastructure Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
BTAGService	Bluetooth Audio Gateway Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
btbtpsvc	Bluetooth Support Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
btthsvc	Bluetooth Support Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
CDPSvc	Connected Devices Platform Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
CertPropSvc	Certificate Propagation	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
ChPolic	Client License Service (ClpSvc)	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
COMSysApp	COM+ System Application	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
CoreMessagingRegistrar	CoreMessaging	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
cpbs	Intel(R) Content Protection HECI Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
CPLAplan	Intel(R) Content Protection HDCP Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
CryptSvc	Cryptographic Services	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
DcomLaunch	DCOM Server Process Launcher	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
DefragSvc	Optimize Drives	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
DeviceAssociationService	Device Association Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
DeviceInstall	Device Install Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
DeviceNpBroker	Discovery Background Discovery Broker	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
Dhcp	DHCP Client	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
DiagnosticHub.StandardCollector.Service	Microsoft (R) Diagnostics Hub Standard Collector Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
DiagSvc	Diagnostic Execution Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
DiagTrack	Connected User Experiences and Telemetry	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
DisplayBrokerDesktopSvc	Display Policy Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
DisplayEnhancementService	Display Enhancement Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
EnrollItenSvc	Device Management Enrollment Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
ExtensibleAuthProtocol	Device Management Wireless Application Protocol (WAP) Push message Routing Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
ExtensibleAuthProtocol	DNS Client	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
ExtensibleAuthProtocol	Delivery Optimization	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
ExtensibleAuthProtocol	Wired AutoConfig	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
ExtensibleAuthProtocol	Diagnostic Policy Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
ExtensibleAuthProtocol	Device Setup Manager	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p
ExtensibleAuthProtocol	Data Sharing Service	Running	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p

7. Listázza ki az adott meghajtón lévő szolgáltatásokat - formázott lista/tábla?

```
PS G:\EGYETEM\2021-22-2\OS\HZS05V0sGyak> Get-ChildItem | Sort-Object
```

Directory: G:\EGYETEM\2021-22-2\OS\HZS05V0sGyak

Mode	LastWriteTime	Length	Name
d-----	08/02/2022 18:21		HZS05V_0214
d-----	21/02/2022 16:58		HZS05V_0214
d-----	24/02/2022 21:08		HZS05V_0221
d-----	28/02/2022 17:24		HZS05V_0228
-a----	08/02/2022 17:00	55	README.md

8. Rendezze sorba név szerint (növekvő/csökkenő) az objektumokat!

```
PS G:\EGYETEM\2021-22-2\OS\HZS05V0sGyak> Get-WmiObject win32_service | select Name, DisplayName | Where-Object Name -like wi*
```

Name	DisplayName
WiaRpc	Still Image Acquisition Events
WinDefend	Microsoft Defender Antivirus Service
WinHttpAutoProxySvc	WinHTTP Web Proxy Auto-Discovery Service
Winmgmt	Windows Management Instrumentation
WinRM	Windows Remote Management (WS-Management)
WISvc	Windows Insider Service

9. Kérdezze le azokat a neveket melynek első két betűje wi!

```
PS G:\EGYETEM\2021-22-2\OS\HZS05V0sGyak> Get-WmiObject win32_service | select Name, DisplayName, State, PathName | Group-Object state
```

Count	Name	Group
110	Running	{(Name=AdobeARMSvc; DisplayName=Adobe Acrobat Update Service; State=Running; PathName=C:\Program Files\Adobe\Acrobat\Updater\AdobeARMSvc.exe); (Name=AllJoynRouter; DisplayName=AllJoyn Router Service; State=Stopped; PathName=C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted -p)}

10. Csoportosítsa állapot szerint az objektumokat!

```
PS G:\EGYETEM\2021-22-2\OS\HZS05V0sGyak> (Get-Service).Count
```

11. Számolja meg az objektumokat!

```
PS G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak> 2,1,3 | Measure-Object -Maximum -Average -Sum -Minimum
```

Count : 3  
 Average : 2  
 Sum : 6  
 Maximum : 3  
 Minimum : 1  
 Property :

12. Számolj meg az objektumok: max, min, avg, sum szerint!

```
PS G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak> get-date
```

05 March 2022 22:18:38

13. Kérdezze le a Windows időt!

```
PS G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak> Set-Variable -Name "szoveg" -Value "Miskolc"
```

14. Hozzon létre egy szoveg nevű változót, melynek értéke: Miskolc

```
PS G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak> $szoveg.Length
7
PS G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak> $szoveg.ToUpper()
MISKOLC
PS G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak> $szoveg.Replace('l', 'g')
Miskogc
PS G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak> $szoveg.Contains('mi')
False
PS G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak> $szoveg.Split("o")
Misk
lc
```

15. Végezze el a következő műveleteket ((length, ToUpper, Replace, Contains, Split) a \$szoveg változó értékeivel

```
PS G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak\H2S05V_0228> Get-Content .\h2s05v.txt
a teljes neve.
PS G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak\H2S05V_0228> Get-Content .\h2s05v.txt | Measure-Object -Line
```

```
Lines Words Characters Property
-----
1
```

```
PS G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak\H2S05V_0228> Get-Item -Path .\h2s05v.txt -Stream *
```

```
PSPath : Microsoft.PowerShell.Core\FileSystem::G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak\H2S05V_0228\h2s05v.txt::$DATA
PSParentPath : Microsoft.PowerShell.Core\FileSystem::G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak\H2S05V_0228
PSChildName : h2s05v.txt::$DATA
PSDrive : G
PSProvider : Microsoft.PowerShell.Core\FileSystem
PSIsContainer : False
PSIsName : G:\EGYETEM\2021-22-2\OS\H2S05V0sGyak\H2S05V_0228\h2s05v.txt
Stream :::$DATA
Length : 14
```

16. Készítsen a C:\ meghajtóra egy neptunkod.txt fájl, melynek tartalma a teljes neve. Végezze el a következő feladatokat!