Aufgabe 1

Run a PowerShell as administrator.

a. Force stopping the service *AudioSrv* with *Stop-Service -Force AudioSrv*. Then retrieve the status of the service by issung the command *Get-Service.* Restart the service *AudioSrv* with *Start-Service*.

b. Set the startup type of *AudioSrv* to automatic (keyword *Automatic*) by using the command *Set-Service <NAME> -StartupType <TYPE>*.

c. Create a variable *$srv* with the assignment *$srv="AudioSrv"* and repeat the first part of the exercise. Just replace the actual name of the service by the variable *$srv* (don't forget the dollar sign when referring to the variable). What are the advantages of using a variable?

d. Create a log file for the service *AudioSrv* at the current user's desktop. To this end redirect the output of the Cmdlet *Get-Service* with the help of *Out-Host* to a file *srv.log* at the desktop by putting
Out-Host -FilePath C:\users\<USER>\Desktop\srv.log behind every command.

e. Make use of the environment variable *$Env:userprofile* when specifying the path to the log file, instead of the absolute path to the log file.

Exercise 2 (Bonus)

a. List all services that are stopped and have a name that begins with the letter ‚S'.

b. Determine the number of services currently running (status *Running*) on your computer and compare it to the number of stopped services (status *Stopped*)[1].

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[1] You may use the Cmdlet *Group-Object* for collecting (grouping) the objects.

Exercise 3 (Bonus)

Run a PowerShell as administrator.

Find a partner of form a group of three.

a. Exchange IP addresses with your partner(s) and issue mutual ping[2] commands.

b. Investigate the structure oft he *msg* command with *msg /?* .

c. Send your partner(s) the message *coffee break?* via *msg*. You partner can either respond with *I'll be right there* or *Sorry, I don't have any time*. What is the purpose of parameters */V* and */W*?

Exercise 4 (Bonus)

Run a command prompt as administrator.

a. Start and stop the service *LicenseManager* with *net start* resp. *net stop*.

b. Start the service *AudioSrv* with *sc start*. What state is the service in directly after you started it? Make sure the service is running again with *sc query*. Stop the service with *sc stop* and keep an eye on the state again.

c. Set the startup type of *AudioSrv* to automatic using the program *sc config*.

d. Create a variable *srv* using the *set* command and repeat the first part of the exercise. (Make sure you enclose the variable name in percent signs when referring to the variable). What are the advantages of using a variable?

e. Create a log file for the service *AudioSrv* at the current user's desktop.To this end redirect the output of the *sc* commands with the append operator *>>* to a file *srv.log* located at the desktop.

f. Use the environment variable *%userprofile%* for the path to the log file.

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[2] Use either the command *ping* or the Cmdlet *Test-Connection* to this end.