



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 issuing 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-File* to a file *srv.log* at the desktop by putting *Out-File -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.

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 ping² commands.
- b. Investigate the structure of the *msg* command with *msg /?*.
- c. Send your partner(s) the message *coffee break?* via *msg*. Your 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.

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