



### Preparation

Create an *Exchange* folder in the data area.

Assign NTFS and sharing rights so that all users (in the case of sharing rights: *Everyone*) can read and change in the exchange folder. Share the folder under the name *swap*.

### Task 1

Start a PowerShell as an administrator.

Configure a swap drive as follows:

- LaufwerkT:
- Folder\\ [localhost\exchange](#)
- Option nottorestore the connection after Abmessage

Make sure that the T: drive is displayed in Windows Explorer.

### Task 2

Log in as *otto* and connect the swap folder as a network drive as above, but use the *-Persistent* parameter for *New-SmbMapping*.

Disconnect from the network drive by clicking *Disconnect the network drive* under *Connect this PC* → *network drive* and select the T: drive. (Also possible ☺ via PowerShell)

Log out and log back in as *otto*. Make sure that T: is re-integrated.

Disconnect the network drive again.

### Task 3 (Bonus)

Create the *Otto* and *Bernd* folders in the data pane. These are intended to serve as home directories for the respective users. (Don't forget to create a user.)

Configure appropriate NTFS and sharing permissions for the folders. To do this, first consider who should own which rights to a home directory.

Enter the folders under the name *otto* or *Bernd* Frei.

Permanently mount both network drives with appropriate settings and test the access rights to both directories with both users by trying to create a file *a.txt* with the content *X was here*, where X is the name of the accessing user.

### Task 4

Start a PowerShell as an administrator.



## Network Drives

In the data area, create a *SharedData* folder with <sup>1</sup>*New-Item*.

Create a share for 10 parallel accesses with <sup>2</sup>*New-SmbShare* under the name *MySharedFolder*, assign *FA* rights to yourself as well as *MA* rights to *otto* and *RA* rights to *bernd*.

Open Windows Explorer and verify that the share has the correct NTFS permissions.

Launch a **normal** PowerShell.

Assign the drive letter Y: to the share via *New-SmbMapping* and mount it under the server name *localhost*.

Restart the Windows Explorer process via *Stop-Process -ProcessName explorer* so that the drive is directly accessible in Windows Explorer.

Open Windows Explorer and check that the network drive Y: is present and access it, e.g. by creating a text file in it.

Remove the network drive by running *Remove-SmbMapping Y:*. Restart the Windows Explorer process so that the changes are captured immediately.

### Task 5 (Bonus)

Remove the mounted drives via *Disconnect the network drive*.

Embed them via PowerShell using *net use*. Find out more by */?* parameter or on the Internet via the syntax of the command, so that a drive letter can be assigned and the network drive remains permanently (persistently) mounted. Finally, test your solution extensively.

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<sup>1</sup> Remember the parameter *-ItemType* to create a folder instead of a file.

<sup>2</sup> For help using the cmdlet and the parameters you need, see

[New-SmbShare \(SmbShare\) | Microsoft Learn](#)



### Task 6 (Bonus)

This task can only be performed if you have a Nextcloud account.

Connect your Nextcloud data storage as a network drive with the drive letter N: via *net use*. The URL to your account is

<https://app.schule.neumuenster.de/nextcloud/remote.php/webdav>

Then enter your access data at the prompt.

Access your Nextcloud account from Windows Explorer.

### Task 7 (Bonus)

This task can only be performed if you have a Microsoft account and use OneDrive.

Connect your OneDrive data storage as a network drive (*PSDrive*) using the drive letter O: via PowerShell.

The URL is <https://d.docs.live.net/CID>, where CID is an ID that belongs to your OneDrive account. The easiest way to read them from the browser is to connect to OneDrive. You can then find the CID in the URL in the address bar.