Synology NAS and Logitech Media Server with add-on package Docker

A guide on how to install Logitech Media Server on your NAS if it supports the Docker add-on package for virtualization. Read the entire document before starting the installation.

*__LMS__ = __L__ogitech __M__edia __S__erver, *__DSM7__ = __D__isk__S__tation __M__anager __7__

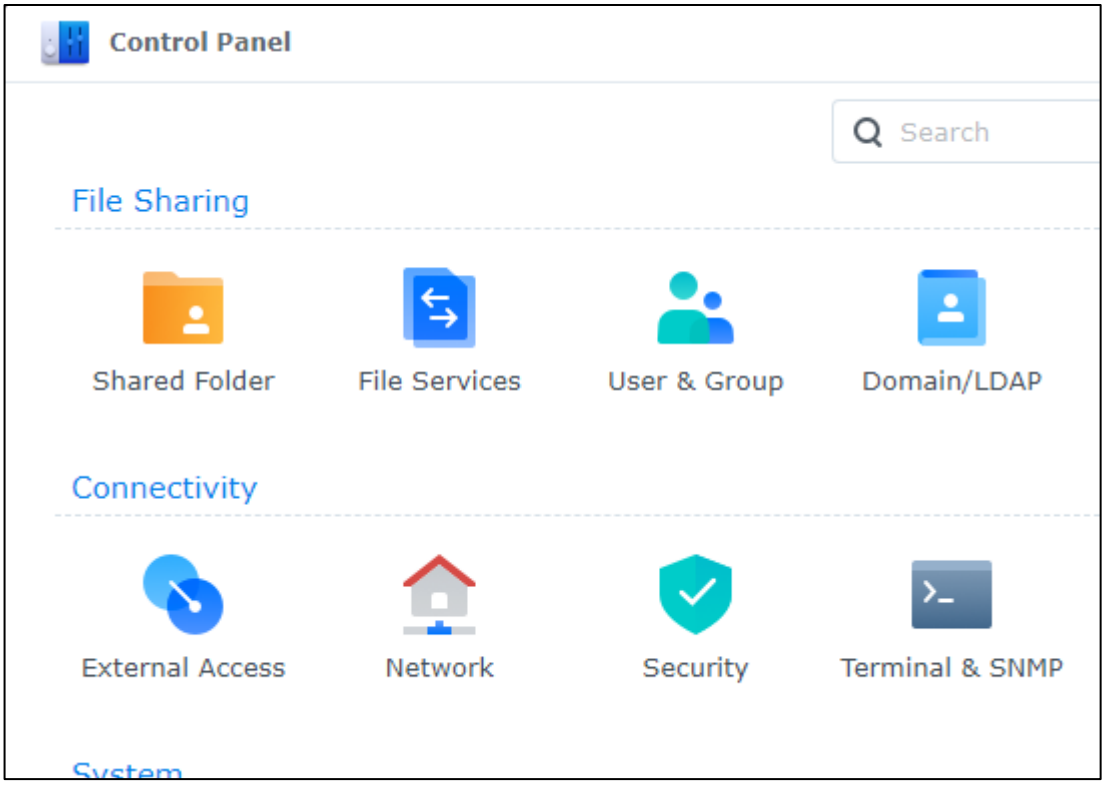
After updating DSM6 to DSM7, PHP5 has been removed, which means that LMS no longer works on Synology NAS.

WARNING!
I cannot take any responsibility if you make a mistake during the installation. This guide is for you who know what you are doing. Shares some of my experiences I had during the installation to get *LMS to work again on my Synology NAS with *DSM7.

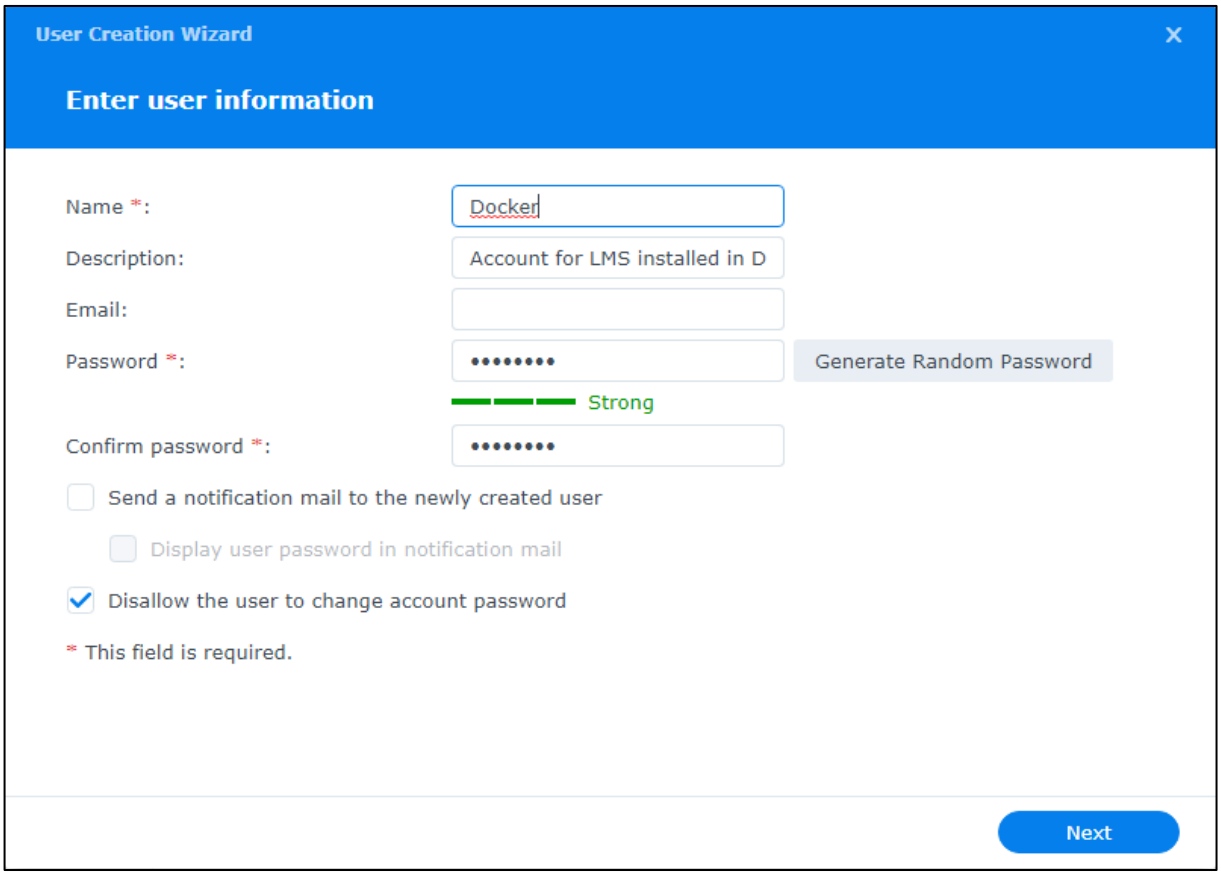
See which models of NAS support Docker on Synology's website
https://www.synology.com/sv-se/dsm/packages/Docker

Preparations:

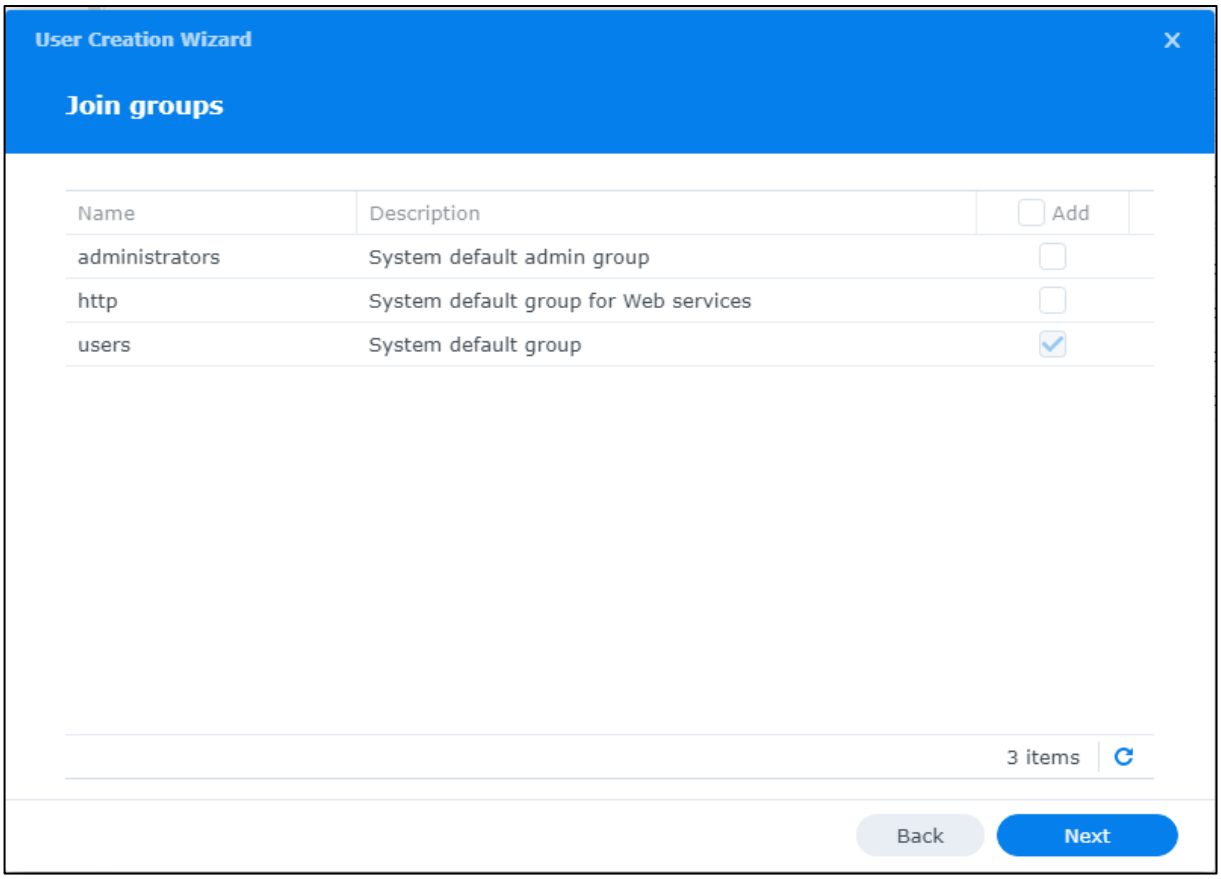
1. Install Docker from Package Center.
2. Do you want to use a folder other than the docker folder in the file structure to save the music files? Then steps 3 to 7 must be performed otherwise you can skip on to point 8. But it is still required that you create folders and that you will need to set up Volume mapping. See more at the end of the document.
3. Create user account
   You need to create a Docker user account if you want to be able to access the music folder or the corresponding folder in the structure of your NAS and not choose to put the files in a folder under the Docker folder. Open Control Panel and Click the User & Group icon.



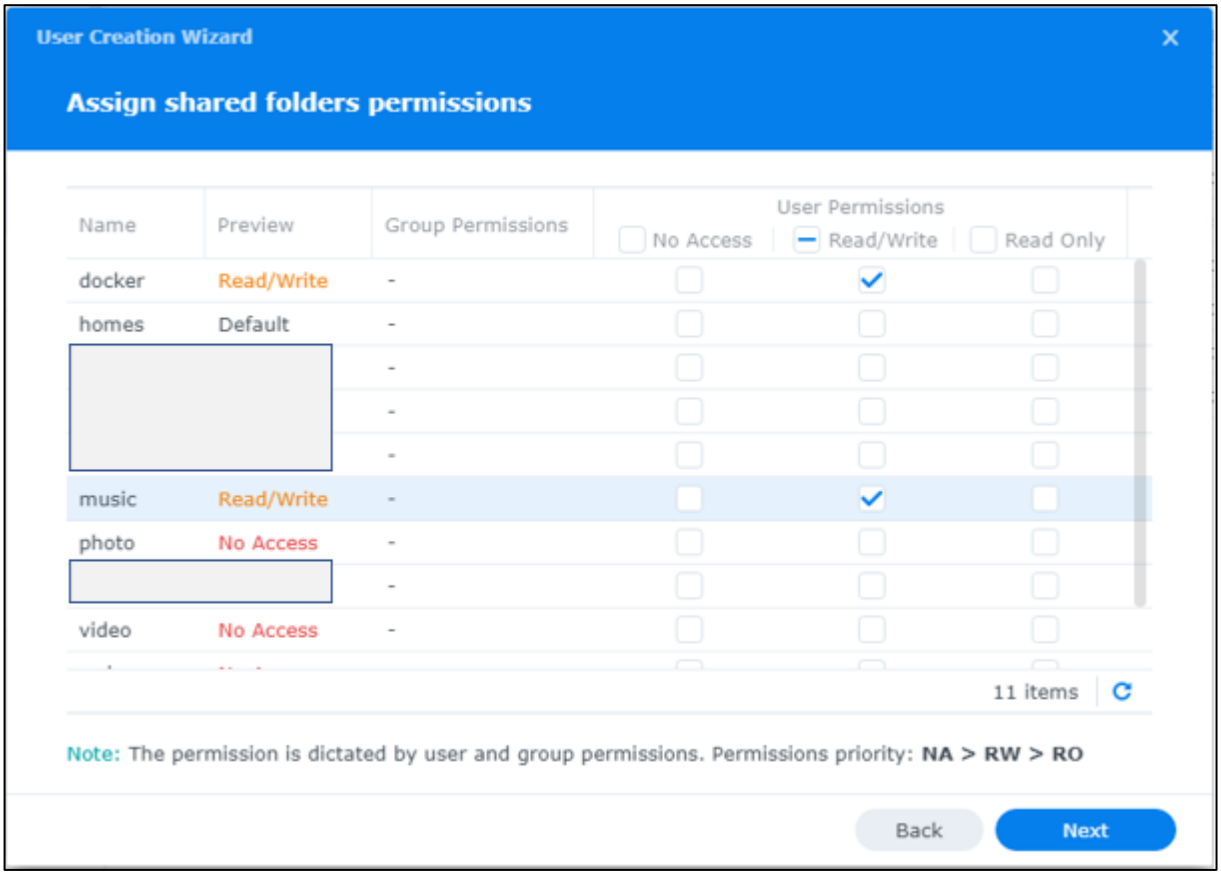
Example of account
Name: Docker
Description: Account for LMS installed in Docker can access ex. folder music
Email: <left blank>
Password: <create a difficult password, you will not use it>
Confirm password: <retype the entered password above>
Check "Disallow the user to change account password"



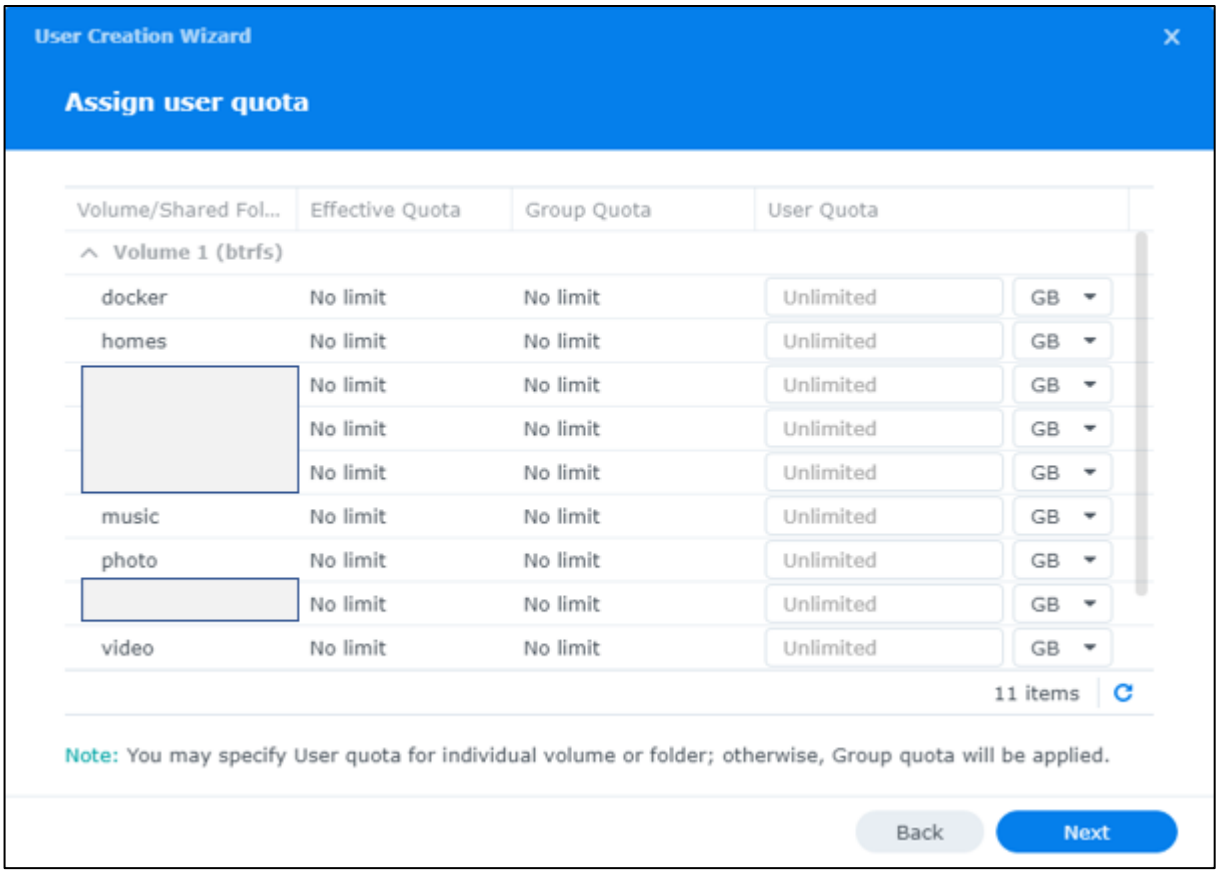
Press Next



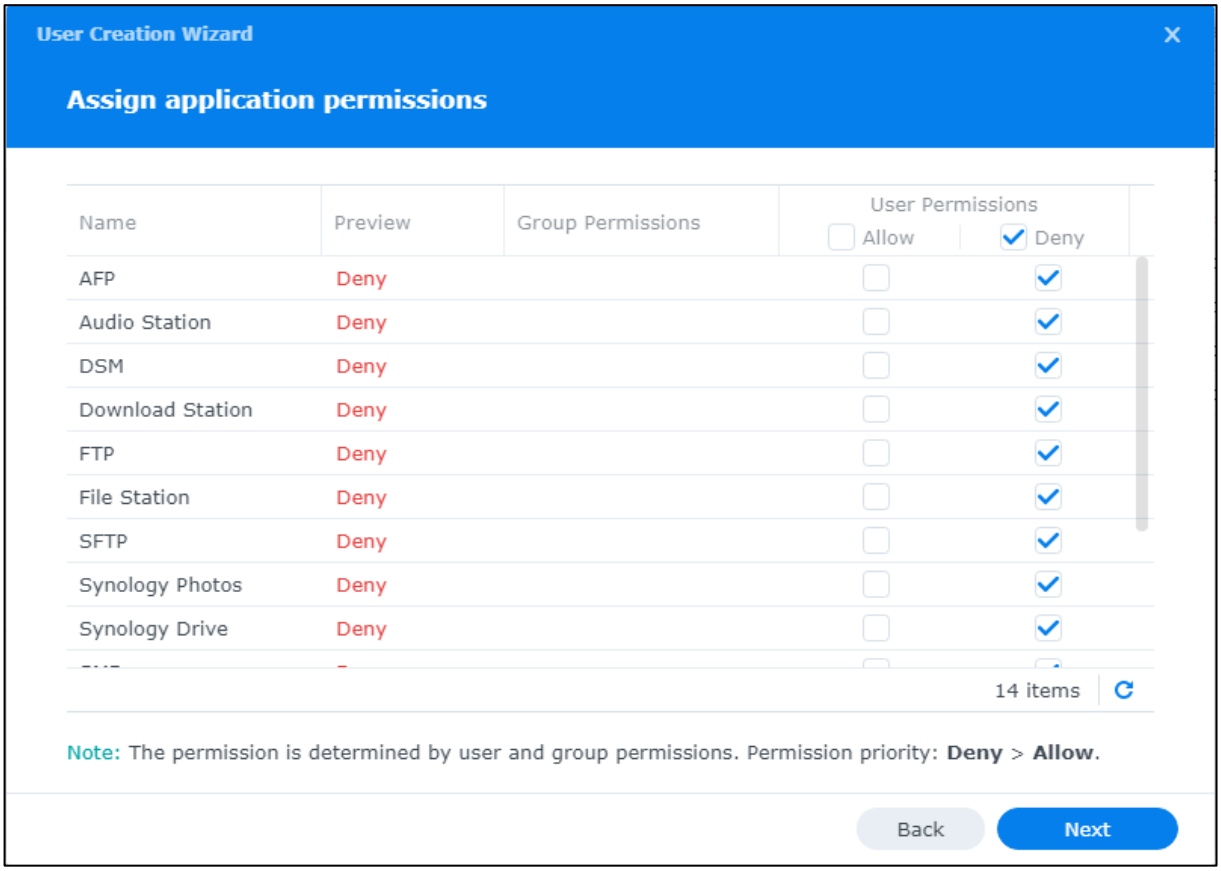
Press Next



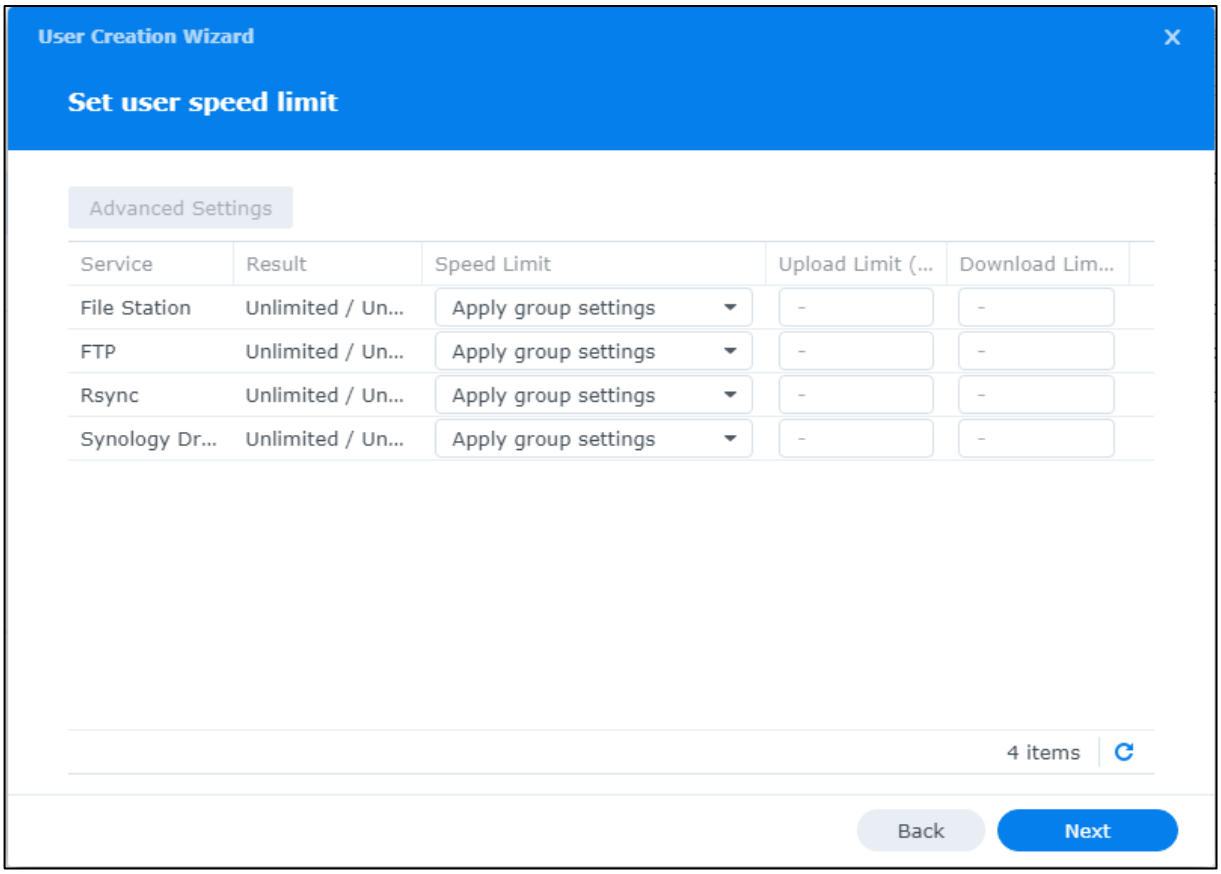
Select the Read/Write permission for the docker and music folders. Press Next



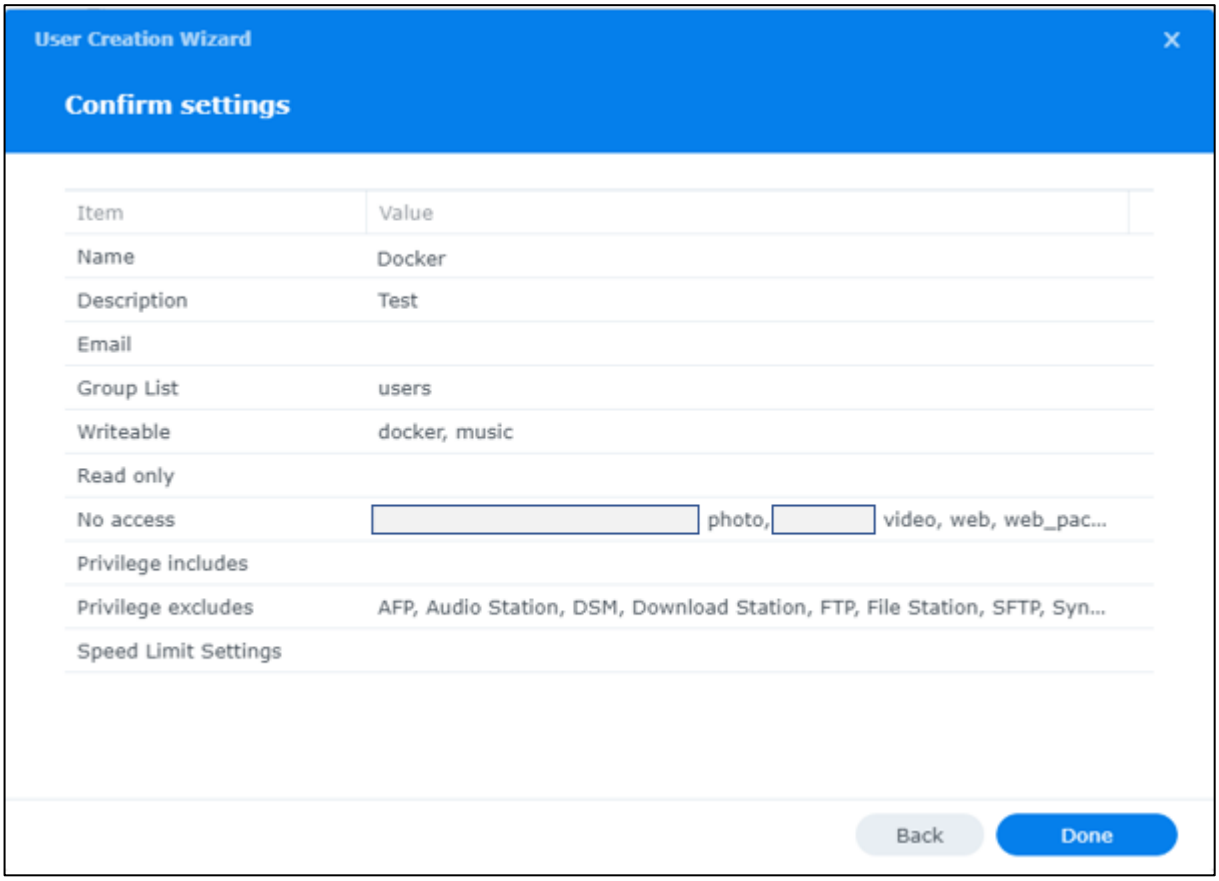
Press Next



Check the box Deny below User Permissions for all applications. Press Next

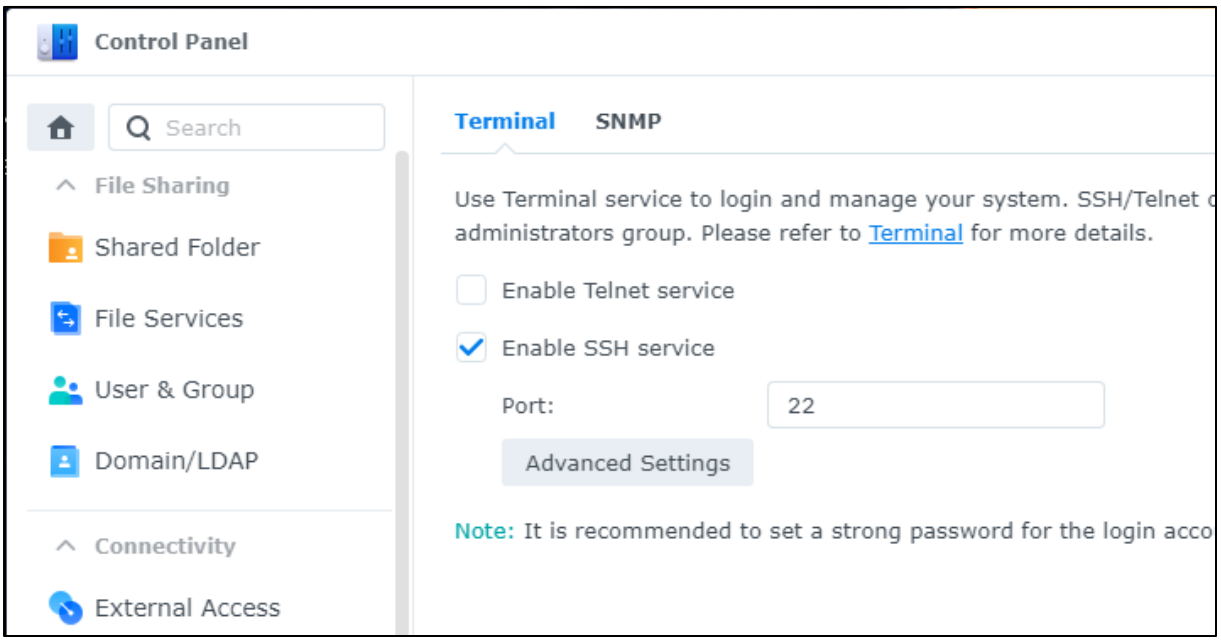


Press Next

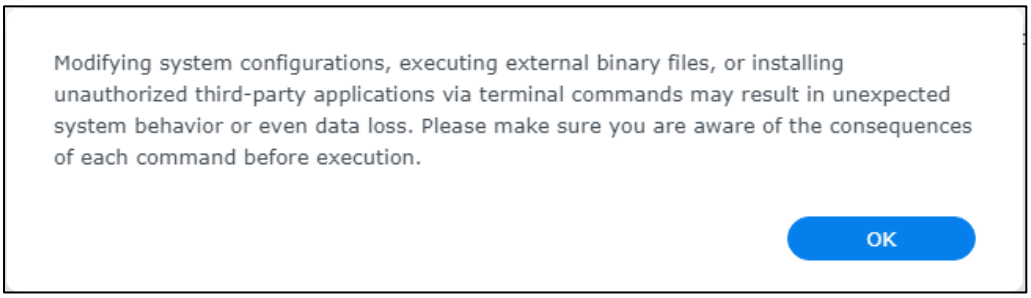


Press Done

4. To set up the correct authorization in Docker for *LMS, we must find out which ID the new account Docker account has received. Requires login via SSH for example with the portable application Putty which I use in the example (PUID = Personal User ID and PGID = Personal Group ID).
5. Set connection to allow SSH to the NAS disk.
   Open Control Panel and click the Terminal & SNMP icon.



   Check "Enable SSH service" and leave it as Port: 22. Press Apply

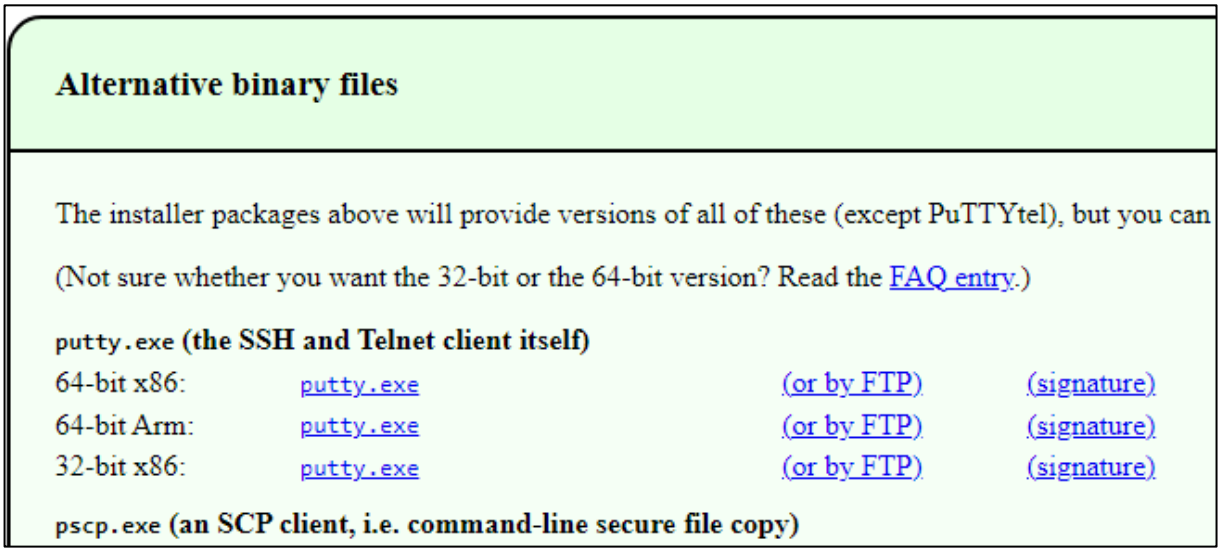


   A warning message is displayed. Press OK
   DO NOT FORGET to deactivate the SSH service after finding out account id.

6. Download Putty to get the newly created account id

   Download Putty from the link below:
   https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html

On the website under the section "Alternative binary files", the standalone version is available for download.



Alternative binary files

The installer packages above will provide versions of all of these (except PuTTYtel), but you can

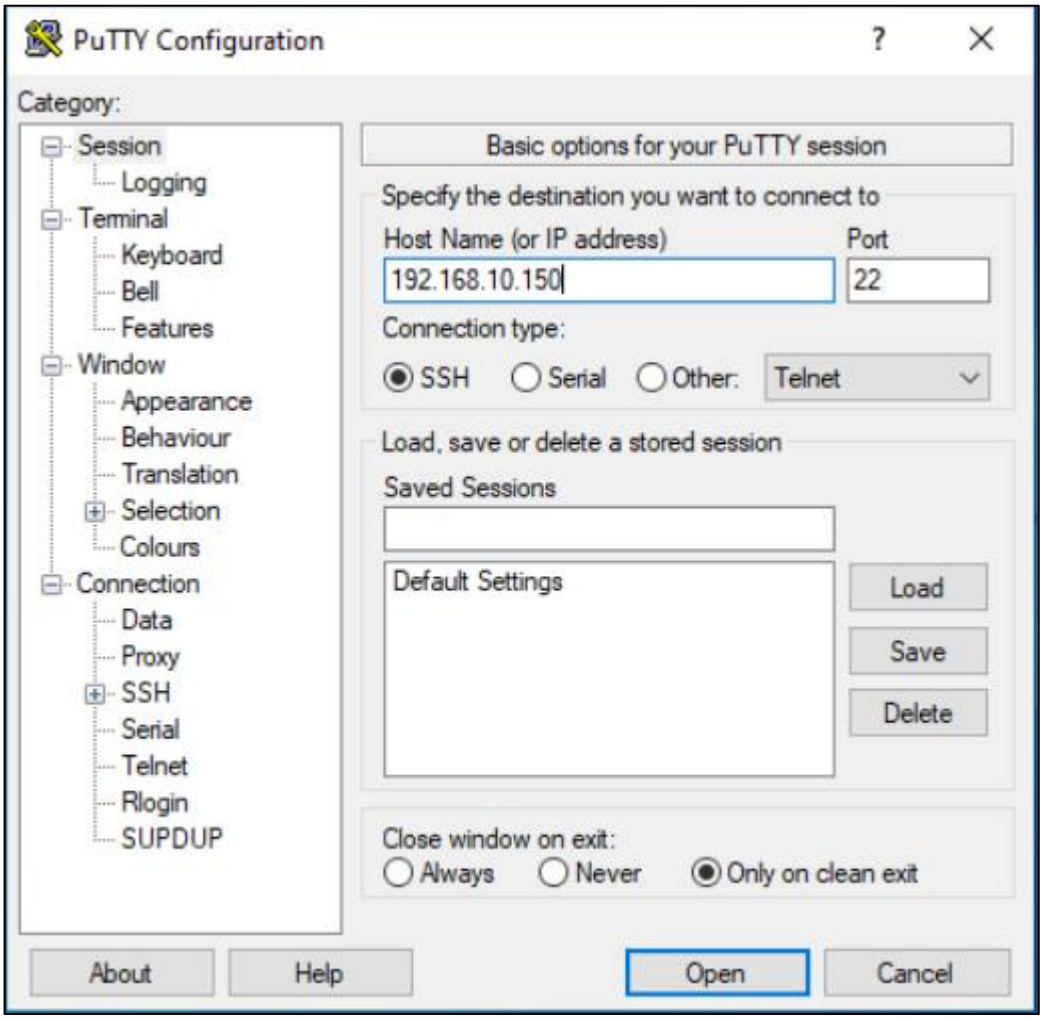
(Not sure whether you want the 32-bit or the 64-bit version? Read the FAQ entry.)

putty.exe (the SSH and Telnet client itself)

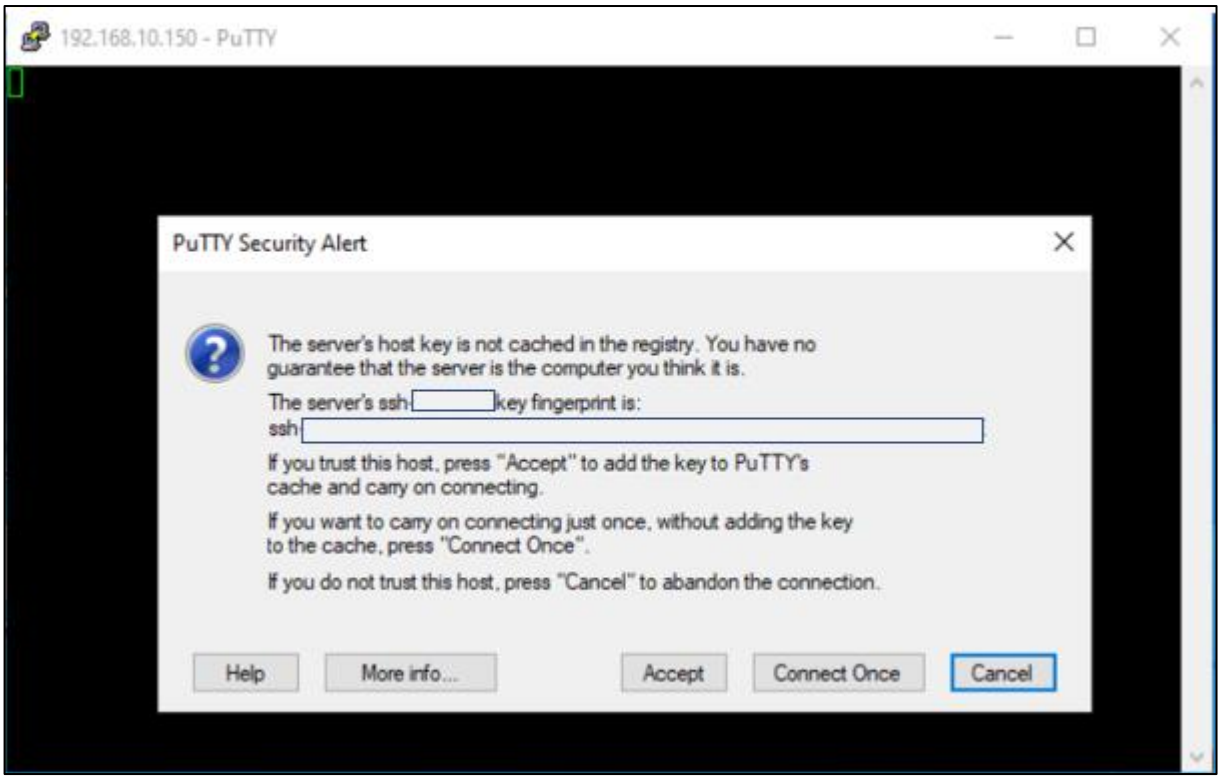
64-bit x86:	putty.exe	(or by FTP)	(signature)
64-bit Arm:	putty.exe	(or by FTP)	(signature)
32-bit x86:	putty.exe	(or by FTP)	(signature)

pscp.exe (an SCP client, i.e. command-line secure file copy)

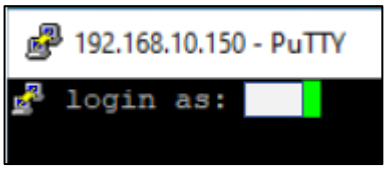
Execute putty.exe



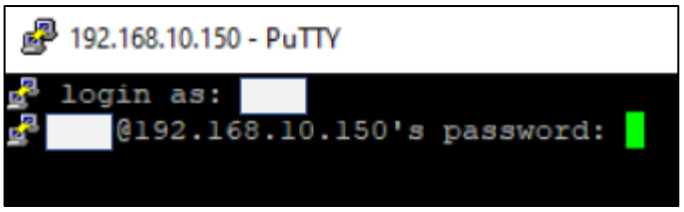
Enter the hostname or IP address of your NAS disk in the "Host Name (or IP address)" box.
Press Open



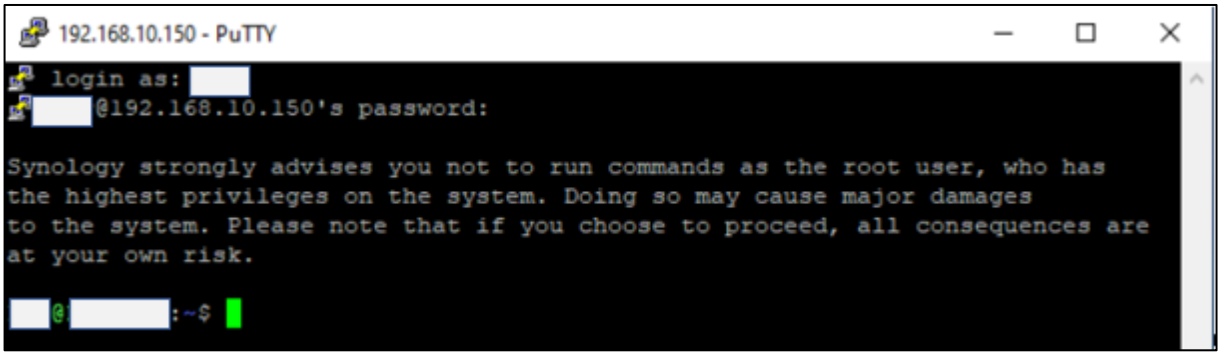
A warning box appears. Press Accept



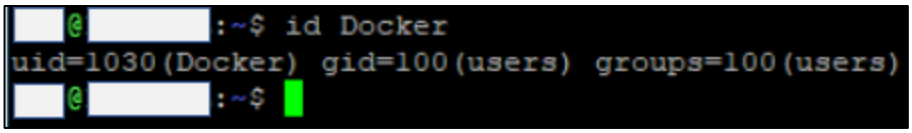
Enter a username that is the administrator of the NAS. Press Enter



Enter the password for the username. Press Enter

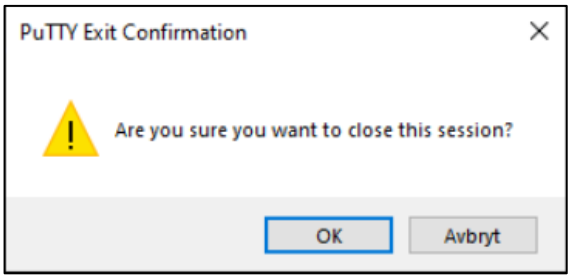


Now you are logged in to the NAS disk via SSH and can enter the command to find out the Docker account id. Enter id <account name>, for example: id docker. Press Enter



Now you see uid 1030 for the account Docker that you are going to use and gid 100 for xxx

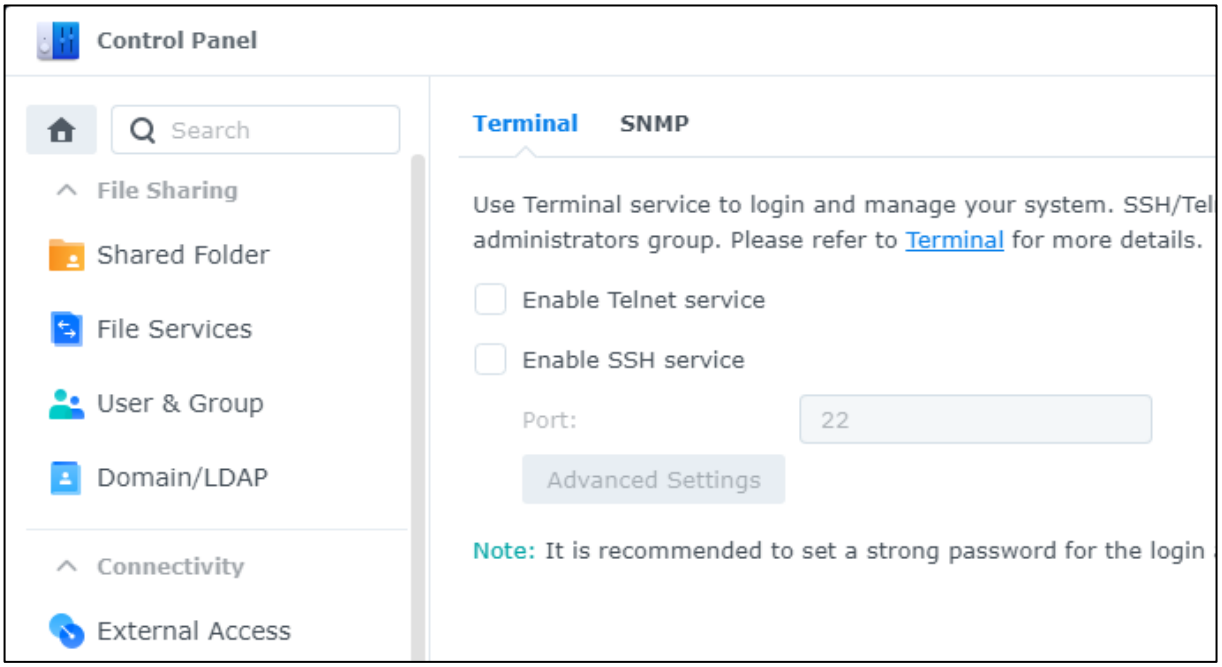
Close PuTTY by clicking on the cross in the upper right corner of the box.



Press OK

Disable SSH

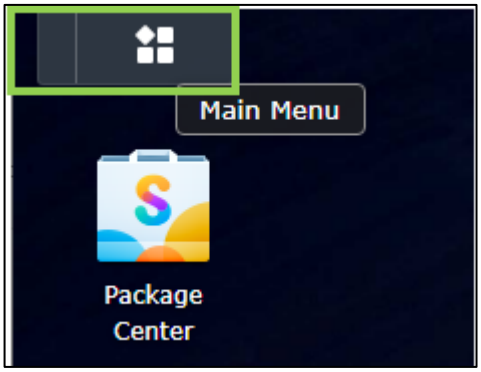
Click the Terminal & SNMP icon.



Click the checkbox in front of text Enable SSH service to remove the X for the "Activate SSH service". Press Apply

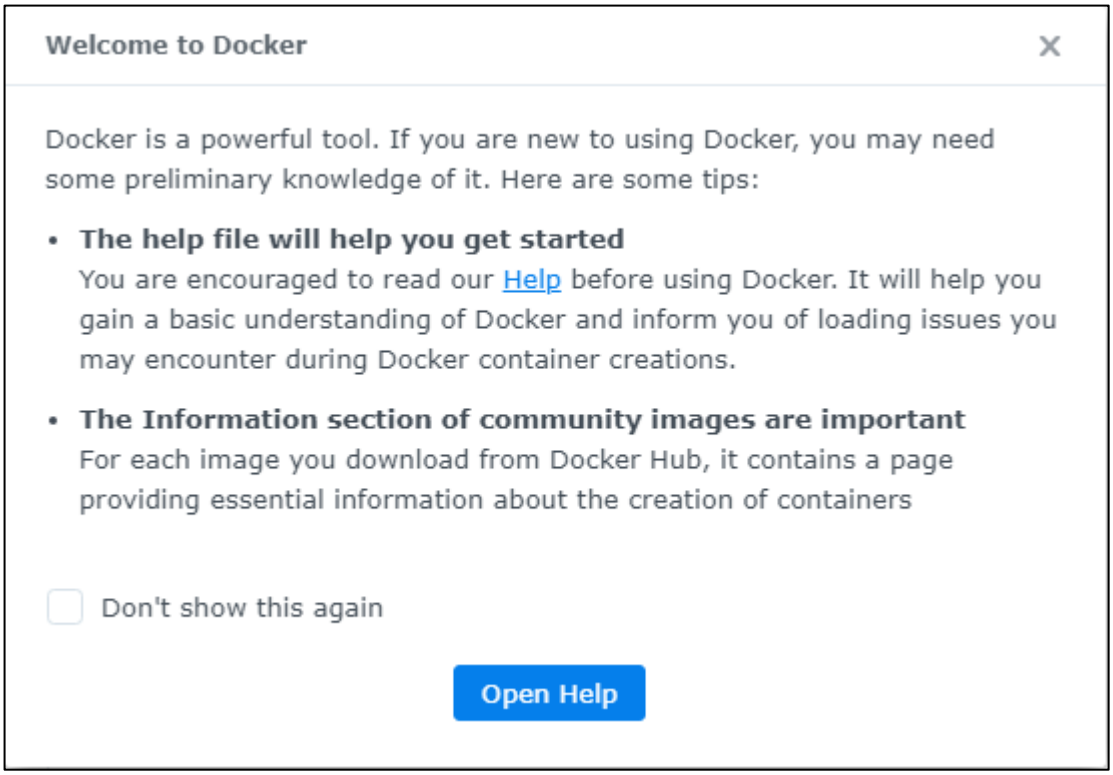
7. Start Docker

Click Synology NAS *DSM7 Main Menu in the browser window, top left

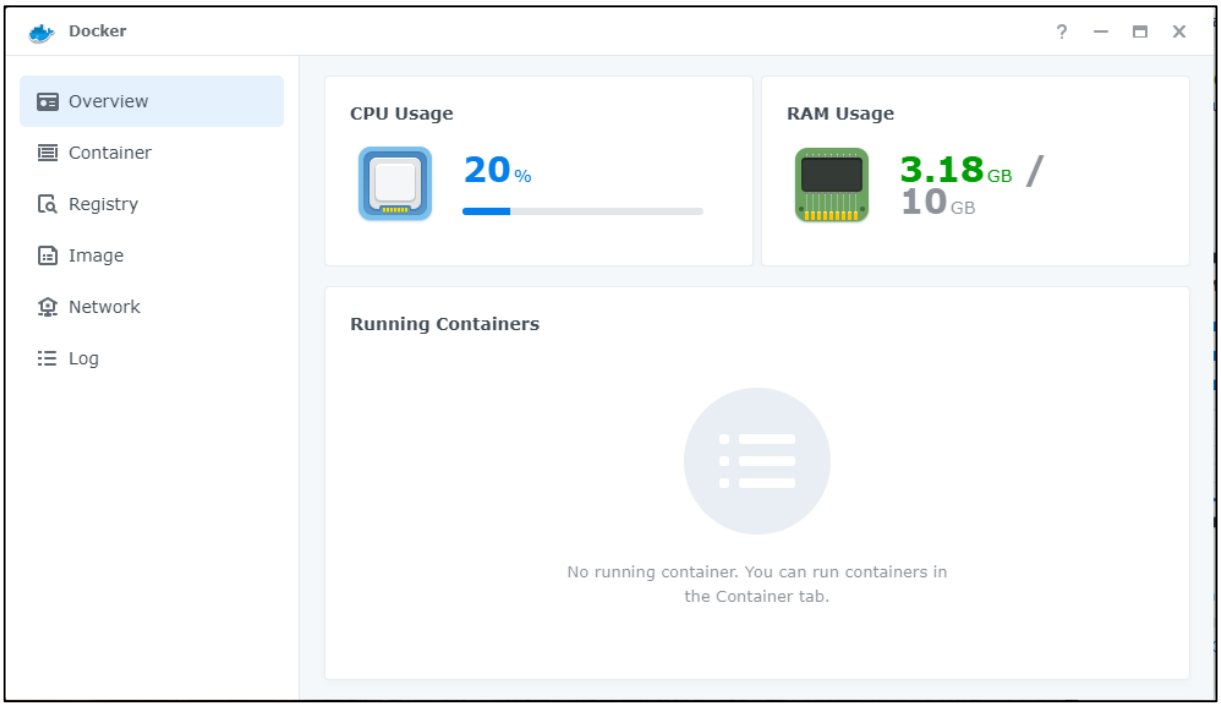


Locate the Docker icon

If this is the first time you are starting Docker, you will get an information box

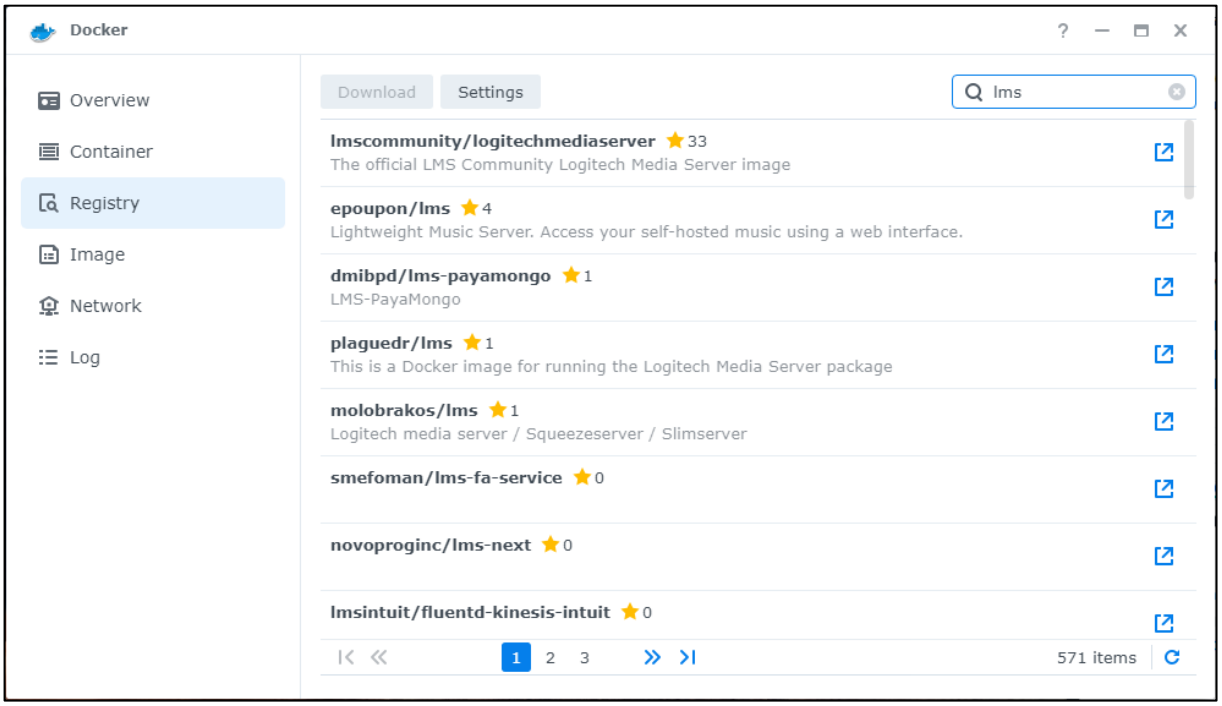


If you do not want to see this information next time, check "Do not show this again".
Close the information box by pressing the X in the upper right corner of the window.



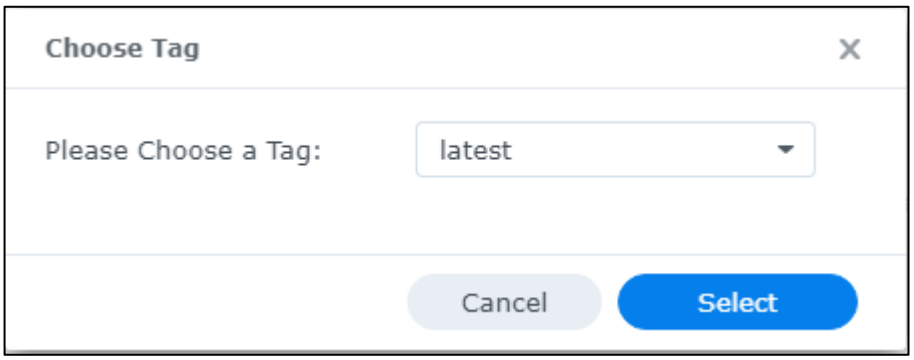
8. Download installation container for *LMS

Select the tab **Registry**



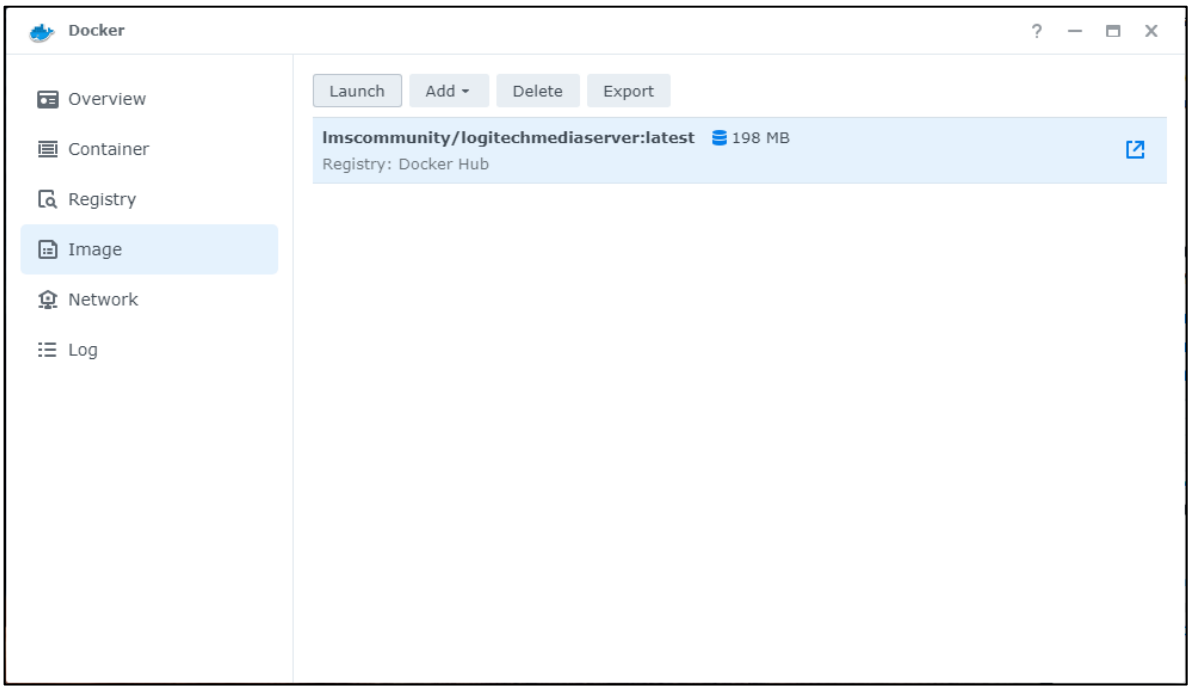
Type *lms in the box to the right and press Enter to start search.

Mark lmscommunity/logitechmediaserver, click Download.

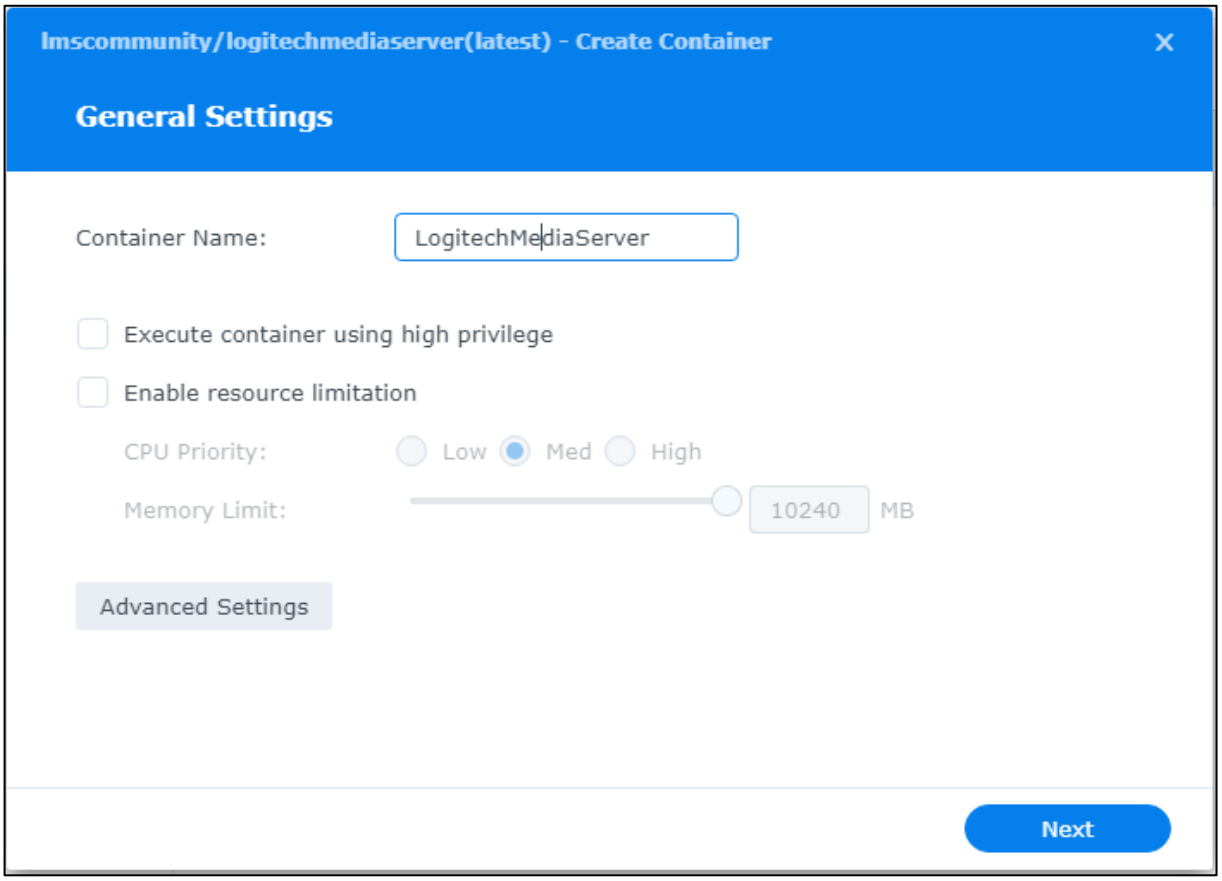


Leave it on "latest" and press Select

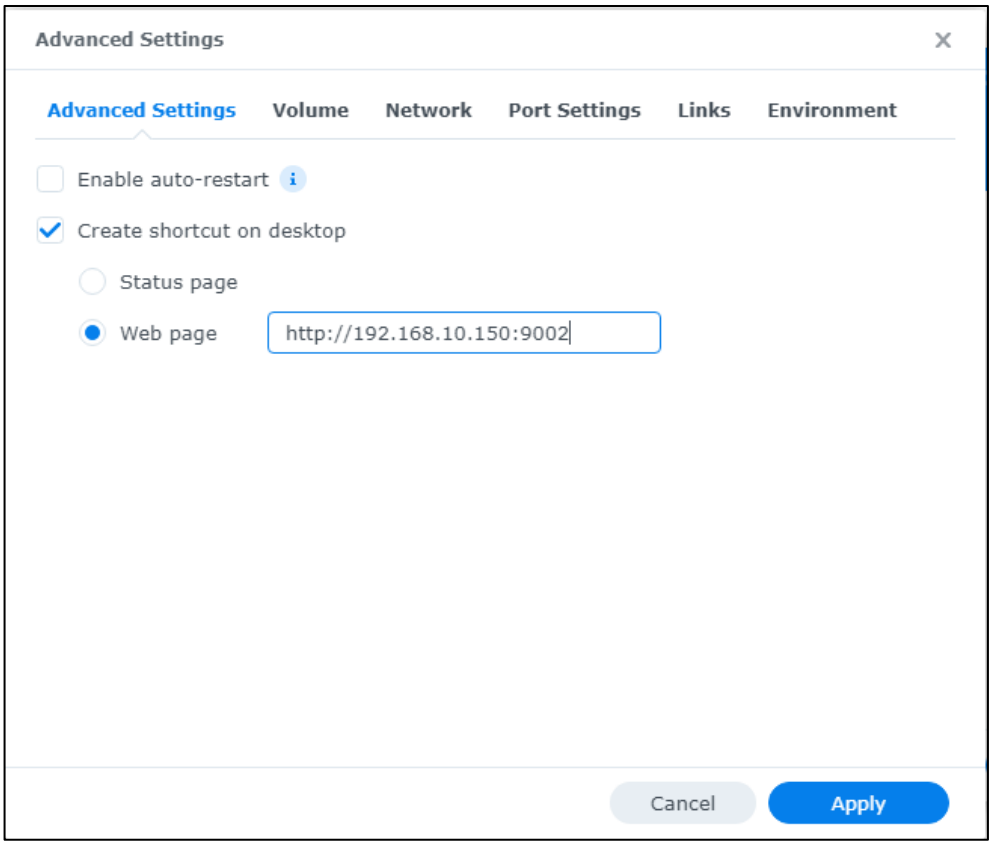
Click the Image tab



After download is ready, mark lmscommunity/logitechmediaserver:latest. Press Launch

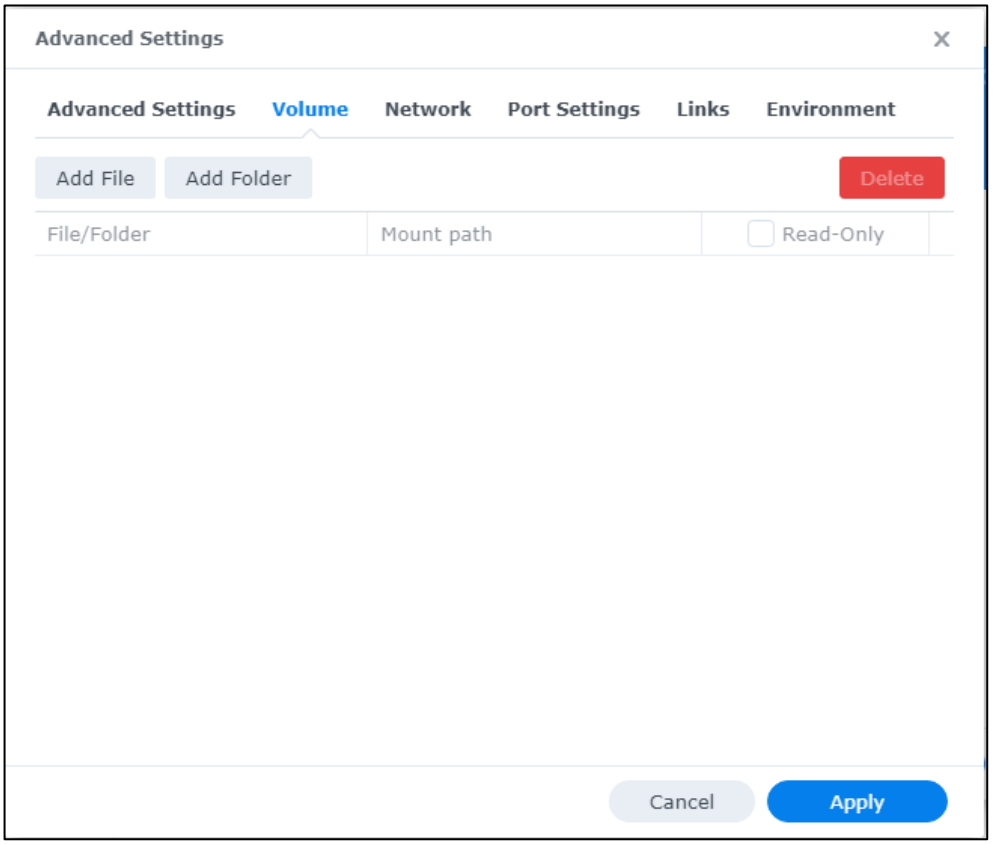


Enter a suitable Container Name: for example, LogitechMediaServer (spaces cannot be used).
Click Advanced Settings

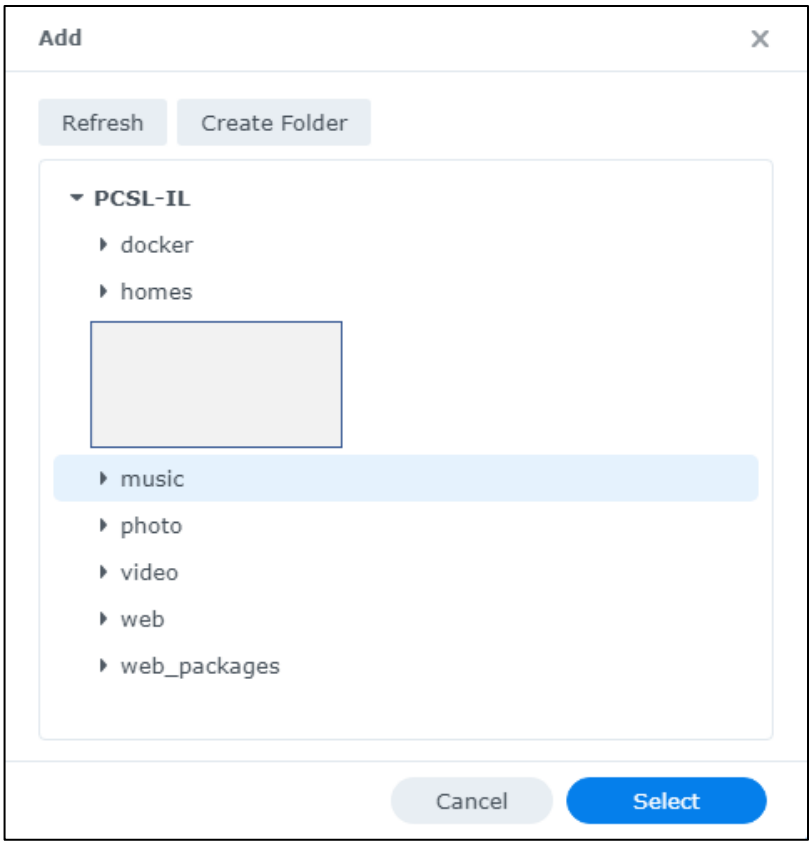


Click Create shortcut on desktop. Click Website. Enter the hostname or IP address of the NAS disk as well as the colon and the port you select, for example 9002.

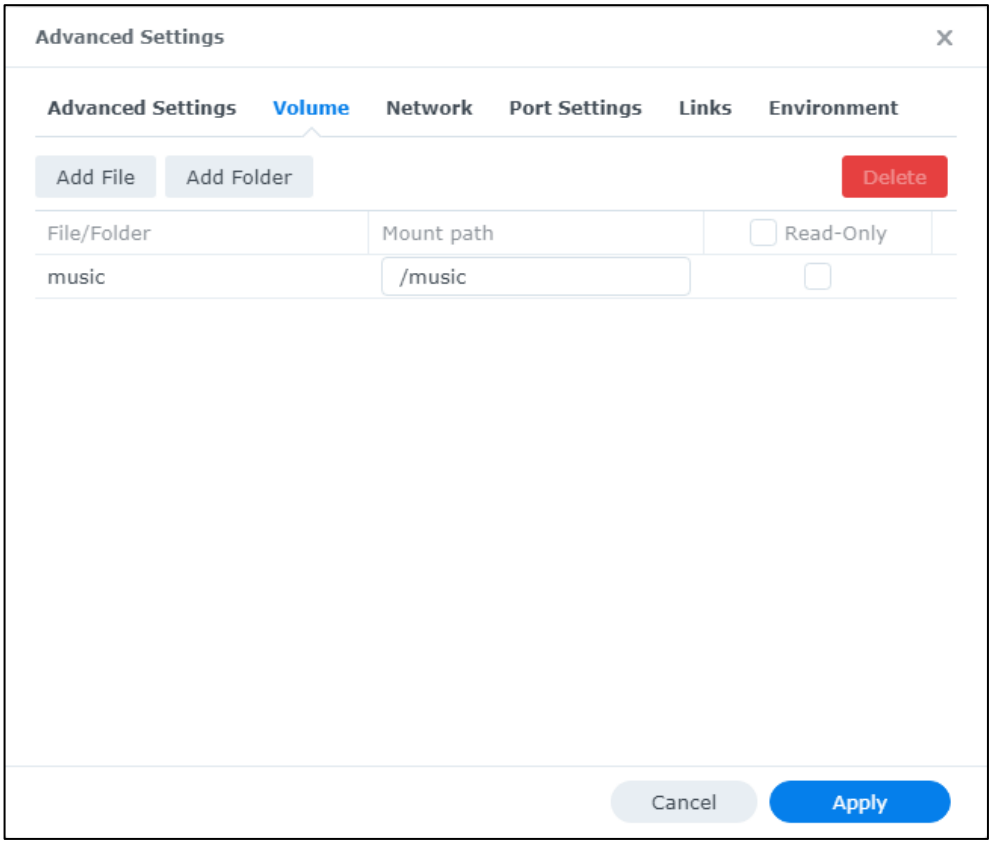
Click the Volume tab



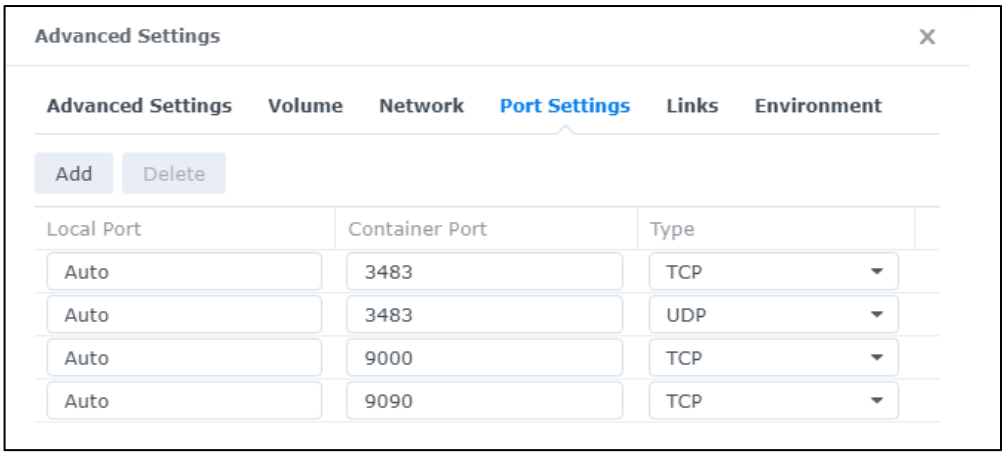
Click Add Folder.



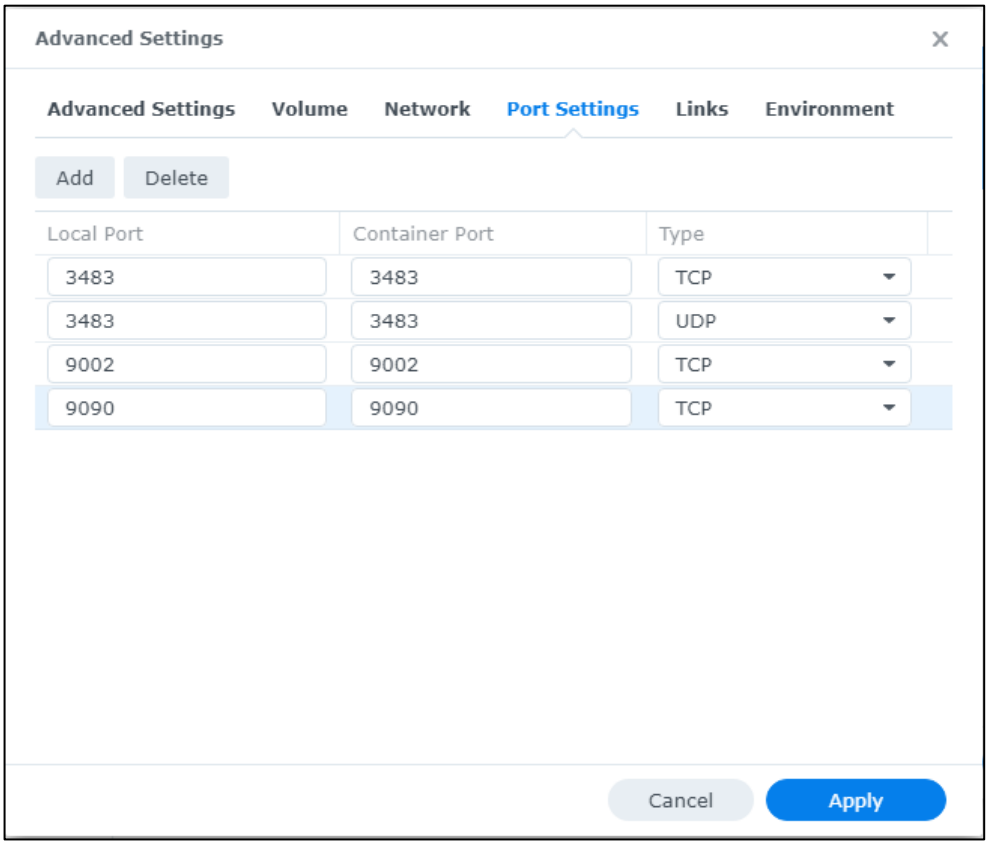
Select the folder that contains your music files, for example it is music. Press Select



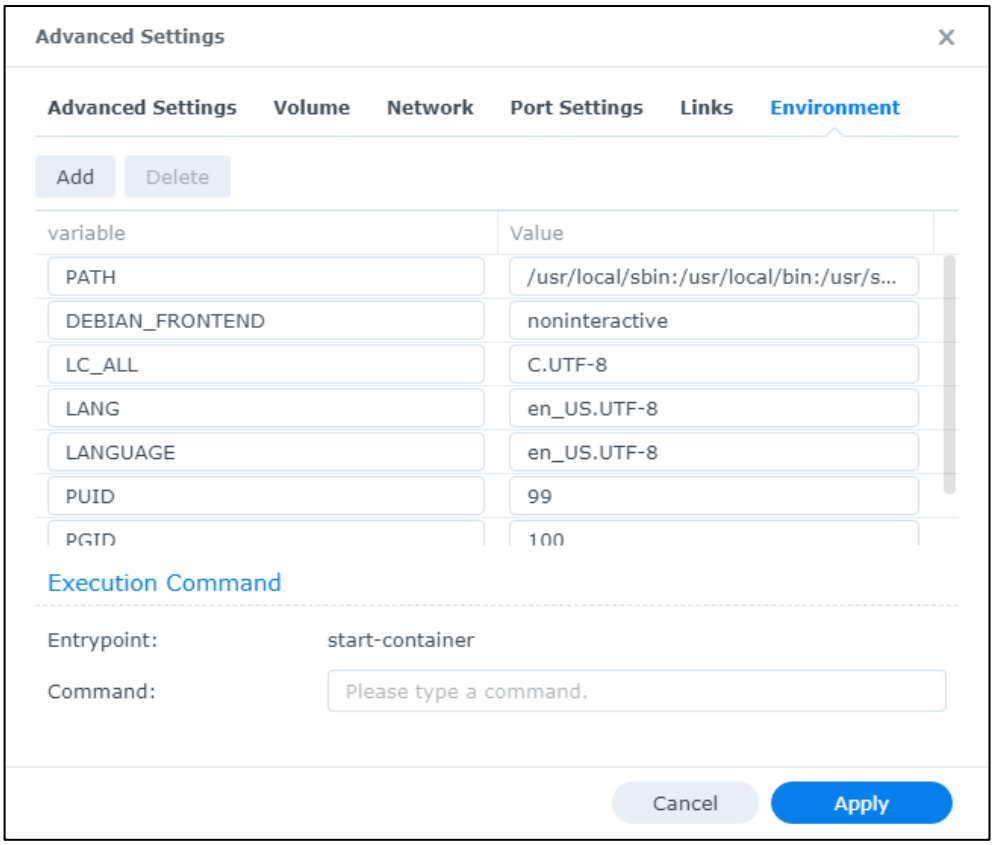
Enter Mount Path /music.
Select Port Settings tab



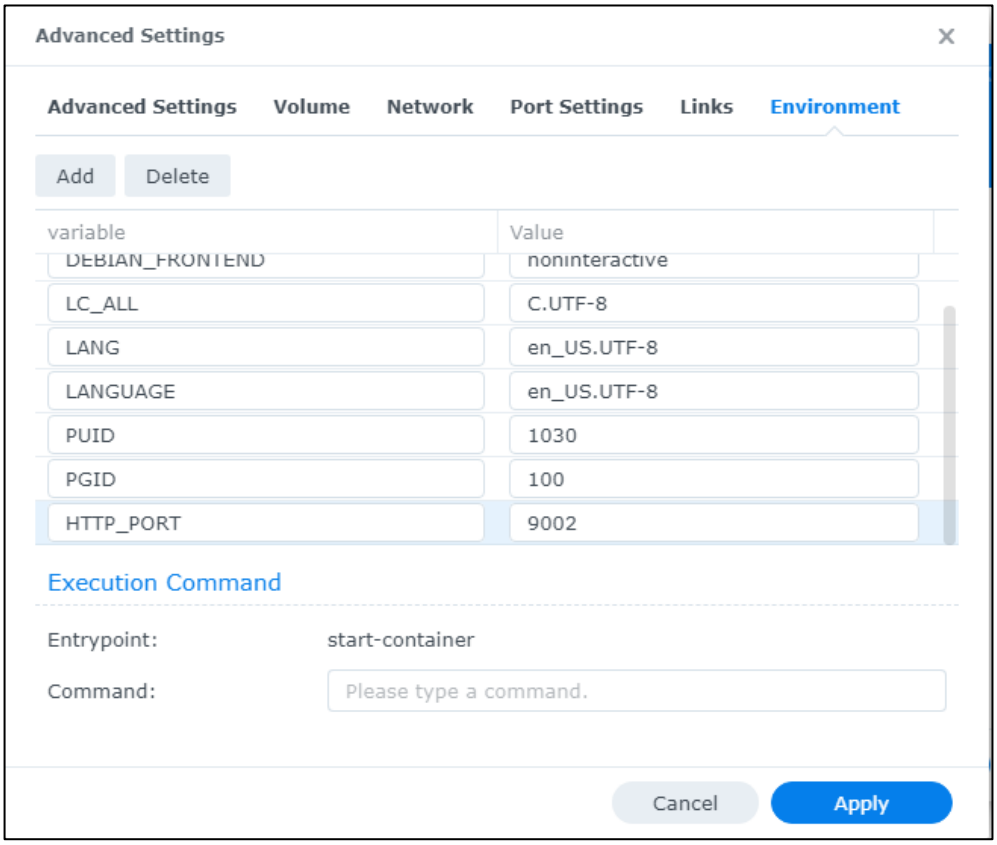
Change settings below Local port from Automatic to the same ports as it says as Container port except for port 9000 which is changed to 9002 both as Local port and as Container port



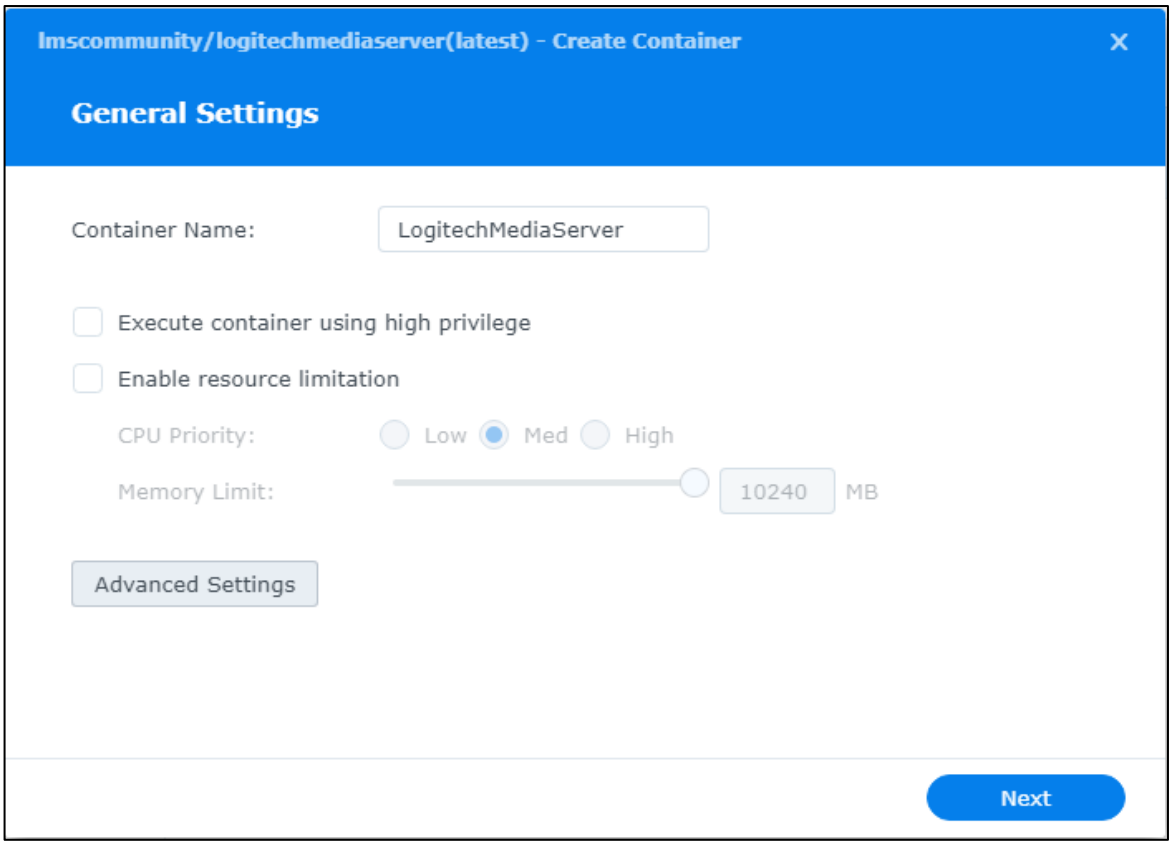
Click the tab on the Environment tab



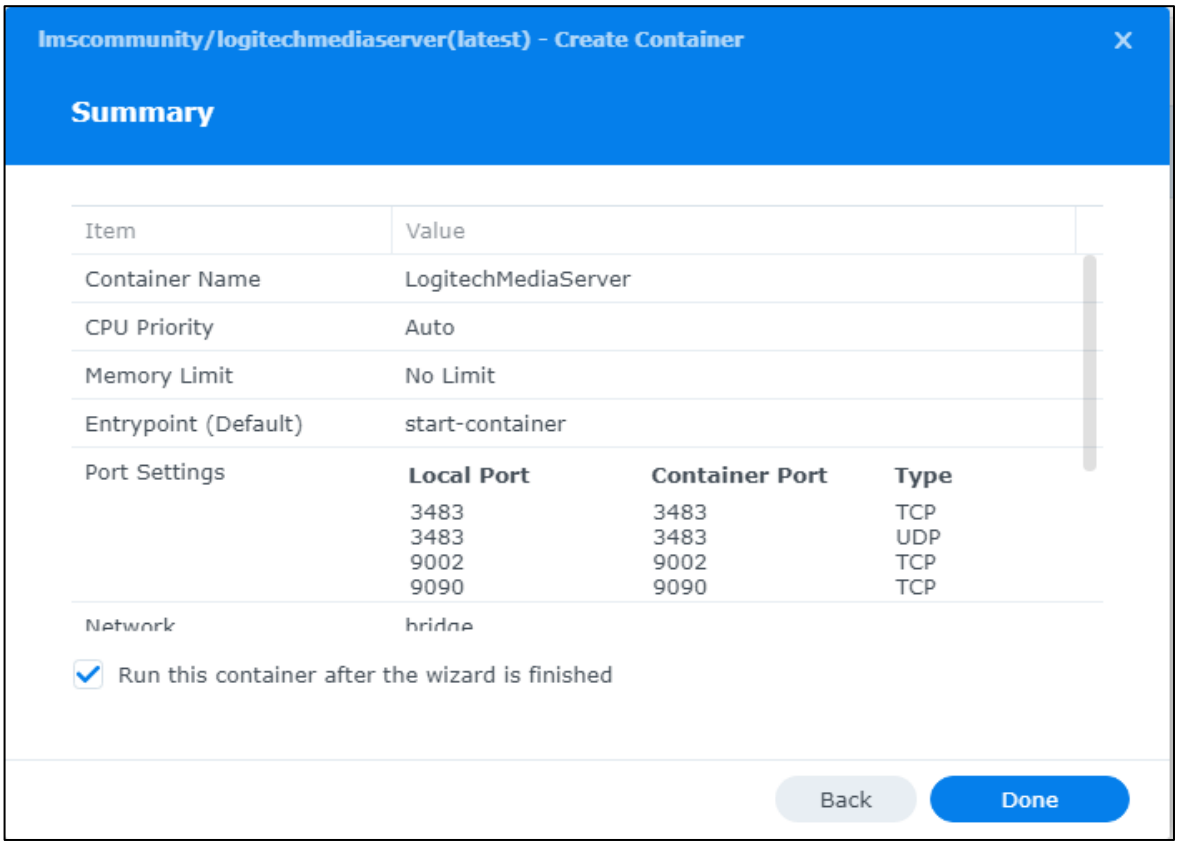
Scroll down to PUID and enter uid 1030 which was charged for the Docker account via the SSH login. Check that PGID is the same as you got under gid when you were logged in with SSH. Scroll down to the end to see HTTP_PORT and change it to 9002 as we changed it to.



Press Apply



Press Next

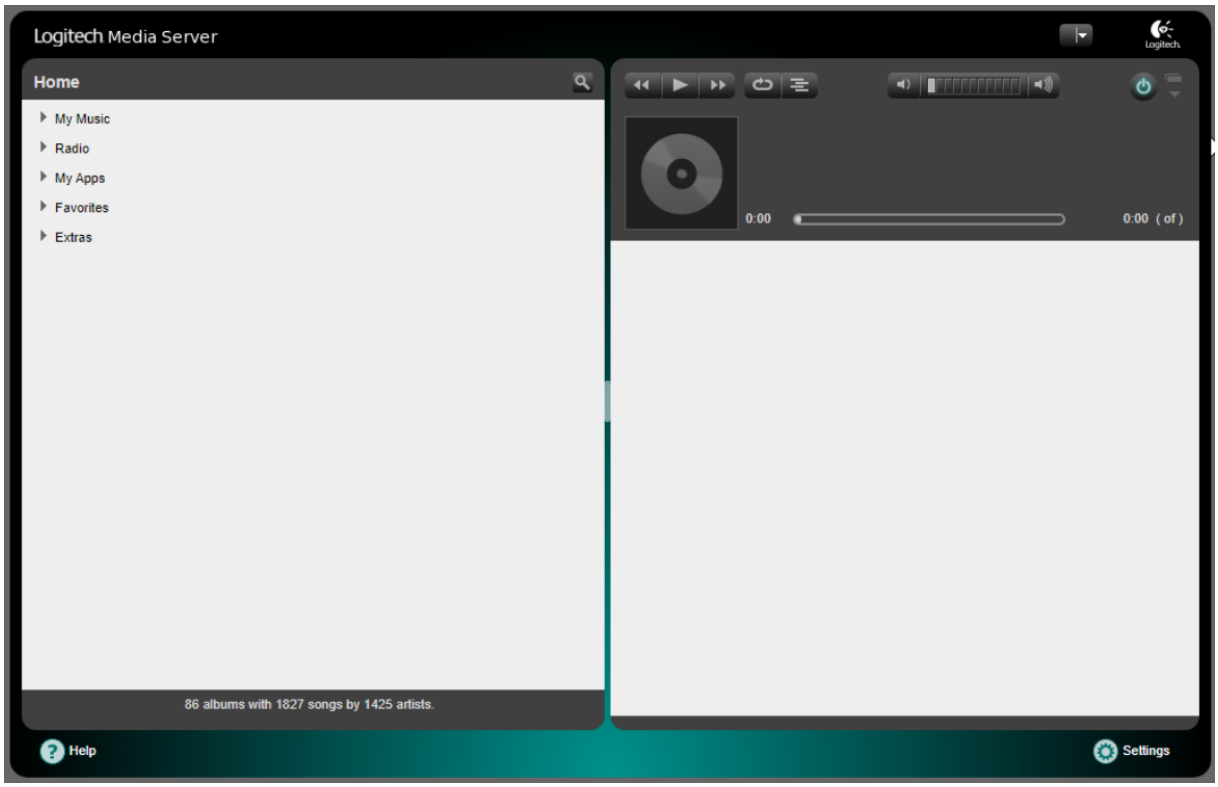


Checkbox Run this container after the wizard is finished, checked. Press Finish

9. Start Logitech Media Server

Click on the icon docker LogitechMediaServer on the NAS desktop

If everything has been set up correctly, you should be able to start up the page with Logitech Media Server



In the lower right corner you have Settings for changing languages and other settings for *LMS but it is not described in this guide.

Good luck and hope this guide can give someone a tip for installing *LMS with Docker.

<u>Some pages that I have collected ideas to make it work on my NAS disk:</u>

Synology additional packages Docker
https://www.synology.com/sv-se/dsm/packages/Docker

The official *LMS Community page for Logitech Media Server pictured for installing *LMS with Docker
https://registry.hub.docker.com/r/lmscommunity/logitechmediaserver/

Create an account for access to Docker container
https://drfrankenstein.co.uk/creating-users-and-obtaining-their-ids/

Synology: How to find UID (userID) and GID (groupID)
https://mariushosting.com/synology-how-to-find-uid-userid-and-gid-groupid/

See also the youtube video, "Using Docker on Synology NAS | 4K TUTORIAL" with installation of the Handbrake application
https://youtu.be/s0HdfxjUtx8