

Save Oscilloscope Data Directly to Your PC via SMB — No More USB Drives

Overview

In day-to-day testing, we often need to transfer test data and screenshots from an oscilloscope to a computer for further processing. Waveform data (e.g., CSV files) and screenshots (e.g., PNG images) are saved to the instrument's internal storage by default, and the usual workflow involves copying them to a USB drive, then transferring them to the PC. When testing is frequent, this constant back-and-forth with a USB stick becomes a real time sink.

So is there a way to save oscilloscope data — in any format, be it CSV, PNG, or others — directly to a PC, without having to shuttle files around with a USB drive every single time?

The answer is yes. By using an SMB client, you can mount a shared folder from your PC directly onto the oscilloscope as a storage location. Once set up, you simply select that shared folder when saving files on the scope — no more USB detours.

This article walks through the setup on Windows 10, showing how to use SMB to turn a shared PC folder into an oscilloscope storage target. This approach not only eliminates the hassle of repeatedly plugging and unplugging USB drives, but also sidesteps the all-too-common corporate policy of disabling USB ports.

Note: Your oscilloscope must support SMB. Typically, you can find this under Function Menu → Services → SMB File Share Path.

PC Setup

1. Enable SMB on Windows

1. Open **Control Panel**, go to **Programs** → **Turn Windows features on or off** (see Fig. 1).
2. Check **SMB 1.0/CIFS File Sharing Support**, and make sure all three sub-items underneath are selected.

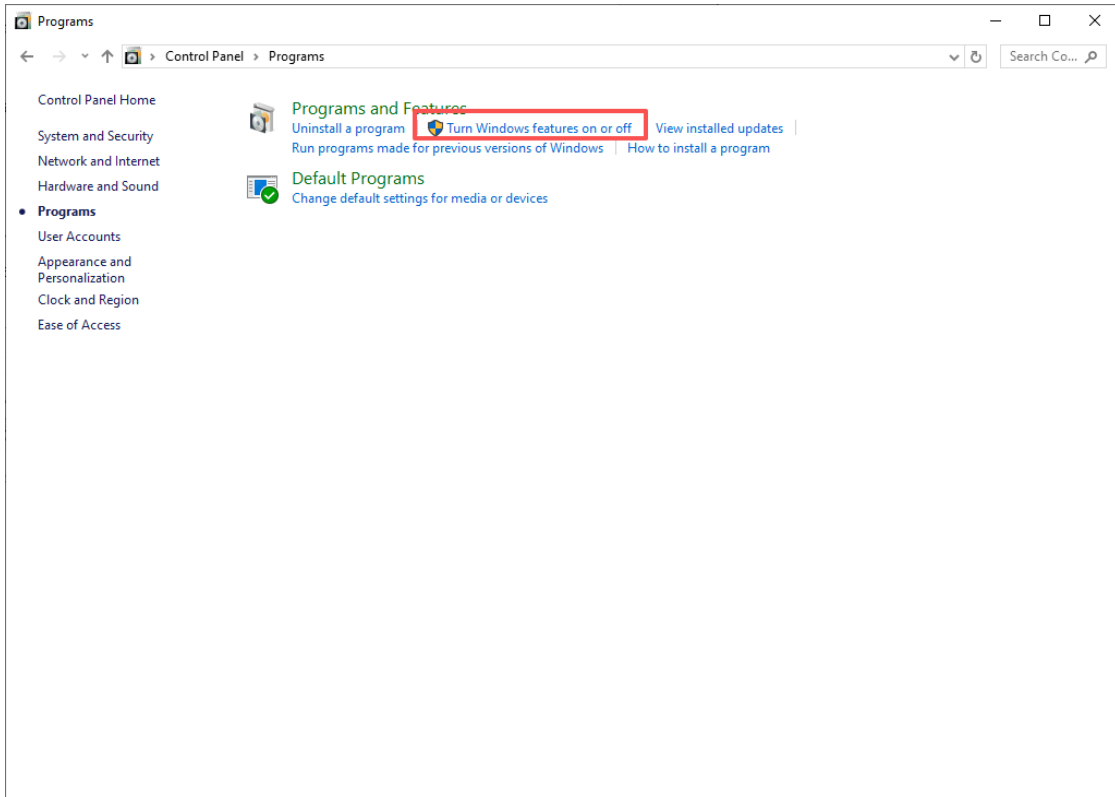


Fig 1: Turn Windows features on or off

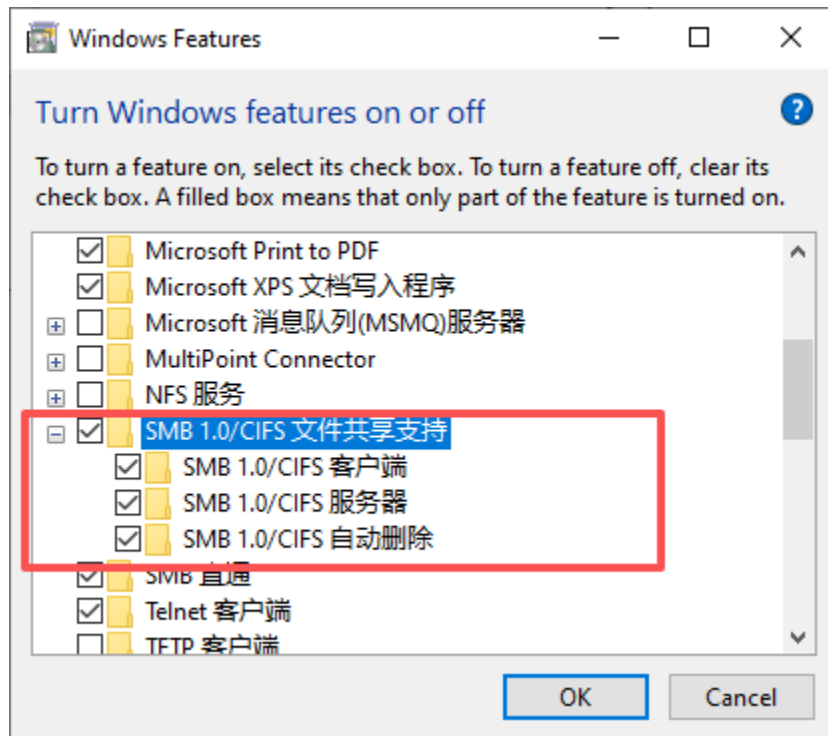


Fig 2: Enable SMB 1.0/CIFS File Sharing Support

2. Configure Advanced Sharing Settings

3. Open **Control Panel**, go to **Network and Internet** → **View network status and tasks** (see Fig. 3).
4. Click **Change advanced sharing settings** (see Fig. 4).
5. Turn on **Network discovery** and **File and printer sharing** (see Fig. 5).

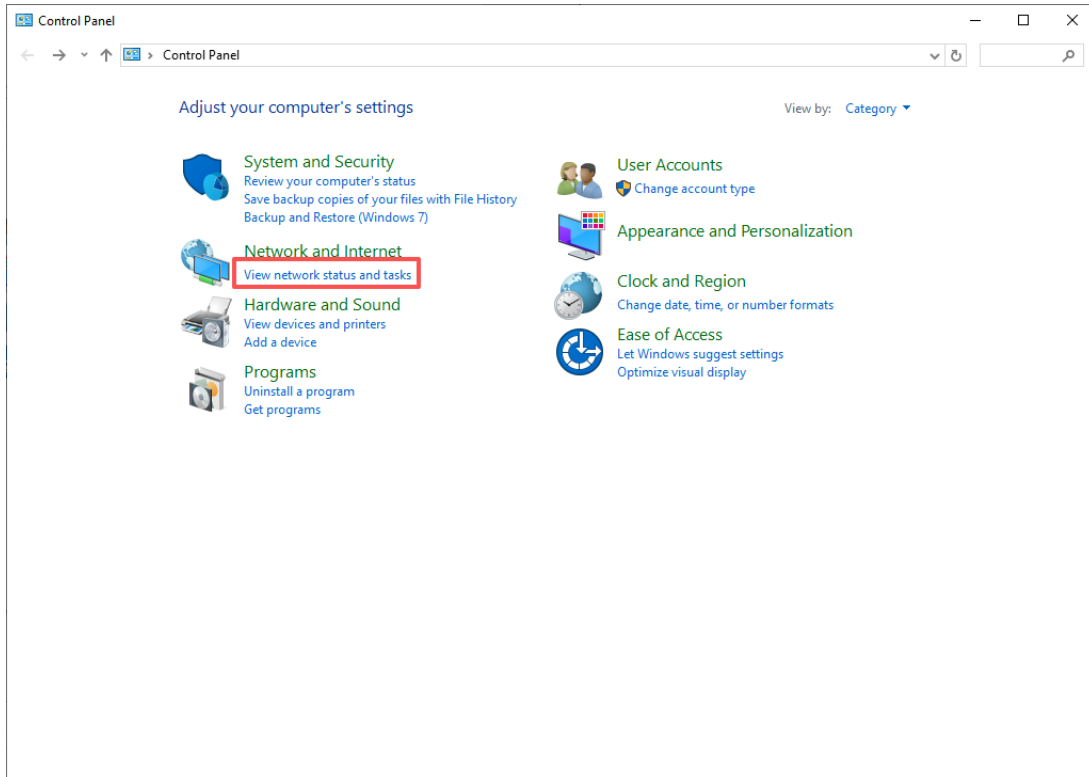


Fig 3: View network status and tasks

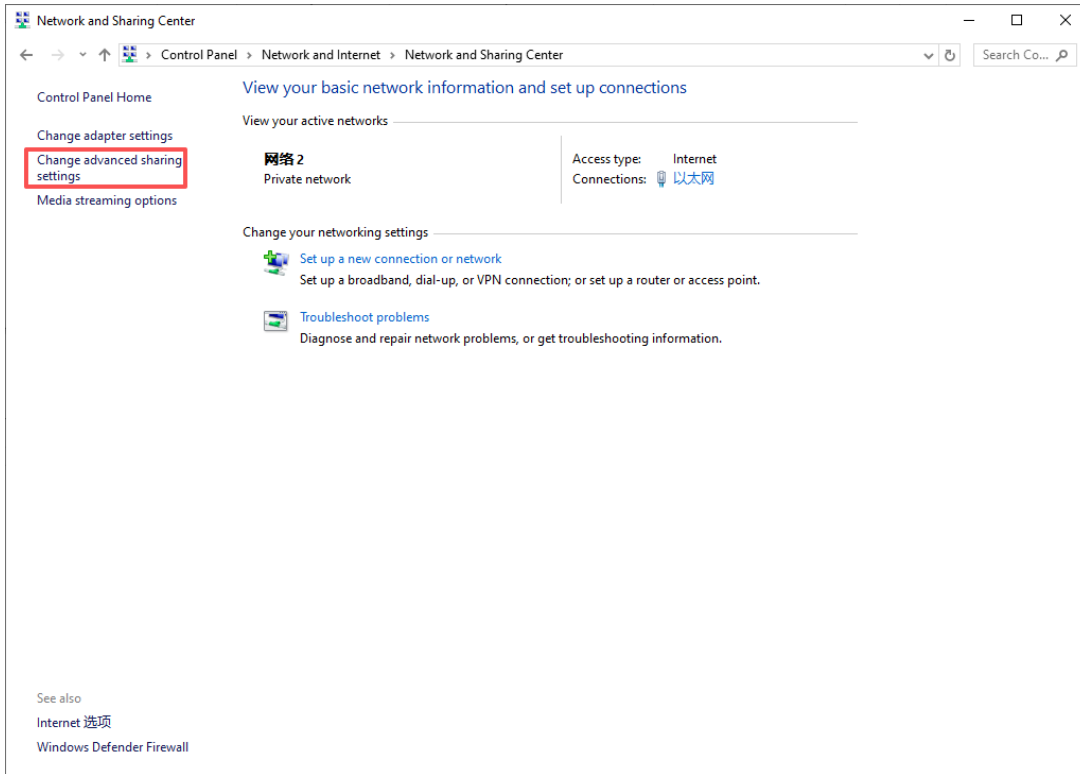


Fig 4: Change advanced sharing settings

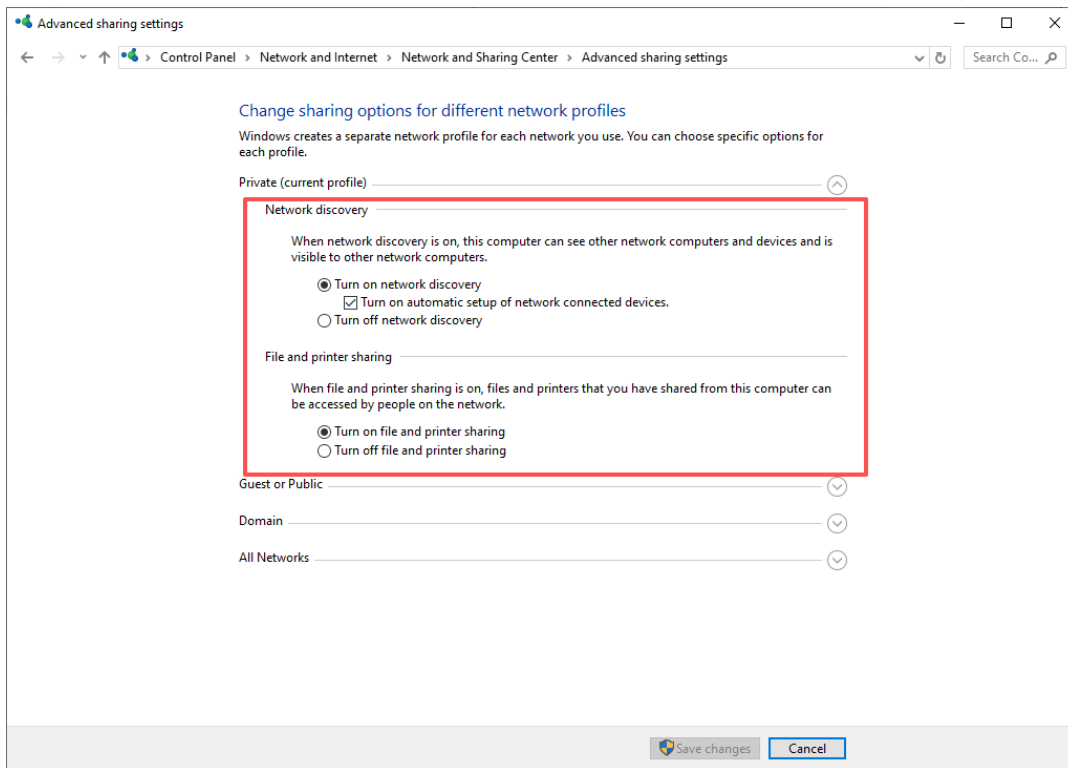


Fig 5: Turn on Network discovery and File and printer sharing

3. Create a Dedicated User Account for Folder Access

6. Right-click **This PC** on the desktop or in File Explorer, and select **Manage** (see Fig. 6).
7. In the **Computer Management** window, navigate to **Local Users and Groups** → **Users**. Right-click the blank area (or the "Users" folder) and select **New User**. Enter a username and password (see Fig. 7) — these credentials will be used by the oscilloscope to access the shared folder. For convenience, you can select **Password never expires**. Click **Create** when done.
8. The newly created user will appear in the user list (see Fig. 8).

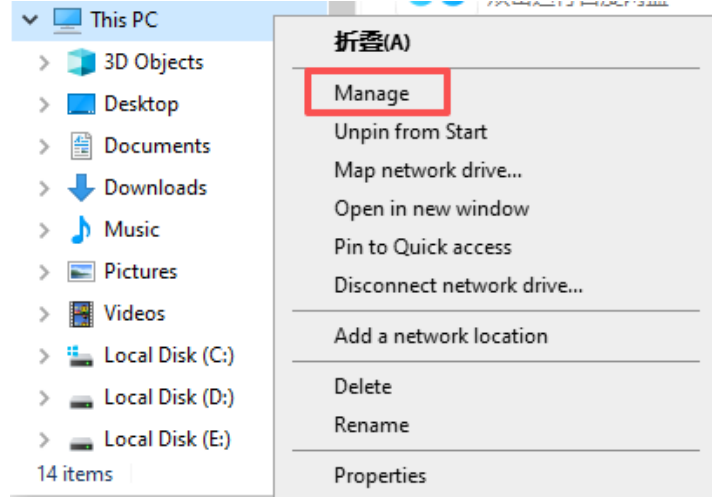


Fig 6: This PC → Manage

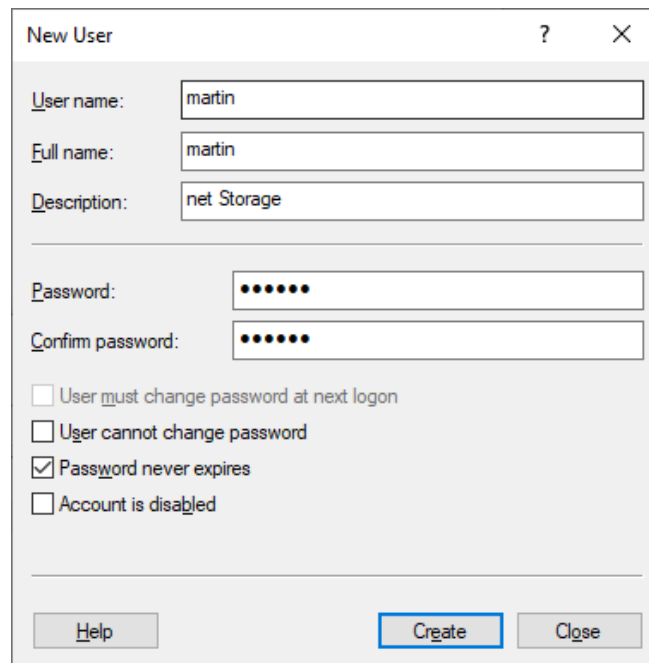


Fig 7: Creating a new user

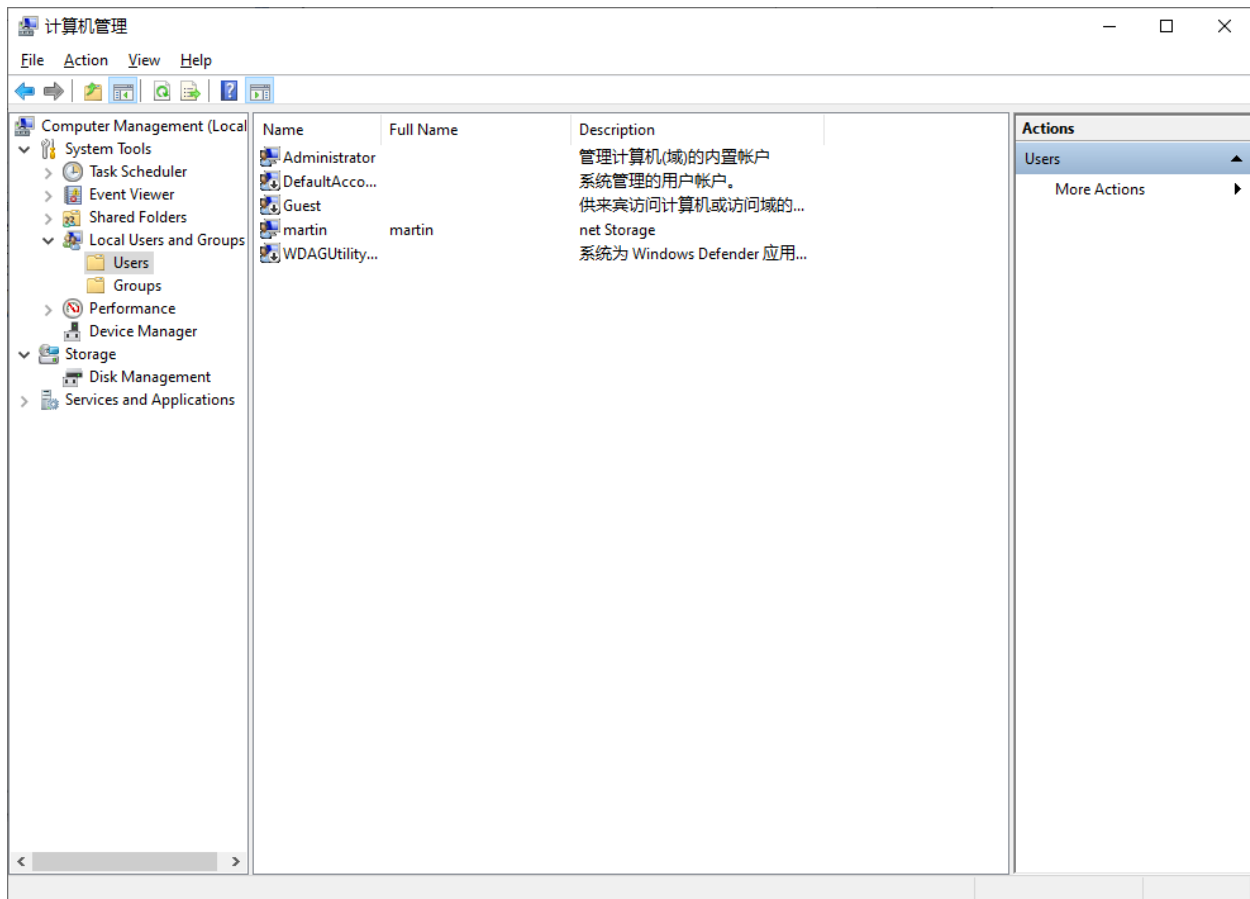


Fig 8: User created successfully

4. Create and Share a Folder

9. Create a new folder (for this example, we'll name it `netStorage`). **Right-click the folder, select Properties → Sharing → Advanced Sharing (see Fig. 9).**
10. In the **Advanced Sharing dialog**, check **Share this folder**, then click **Permissions (see Fig. 10).**
11. In the permissions window, click **Add → Advanced (see Fig. 11).**
12. Click **Find Now**, select the user account you created in step 3 from the list, and click **OK (see Fig. 12).**
13. You should now see the selected user in the permissions list (see Fig. 13). Click **OK to return to the previous menu and apply the changes.**
14. The folder's sharing permissions will look like Fig. 14. Go back into the **Advanced Sharing settings and modify the permissions — set all permissions to Allow for this user (see Fig. 15).**

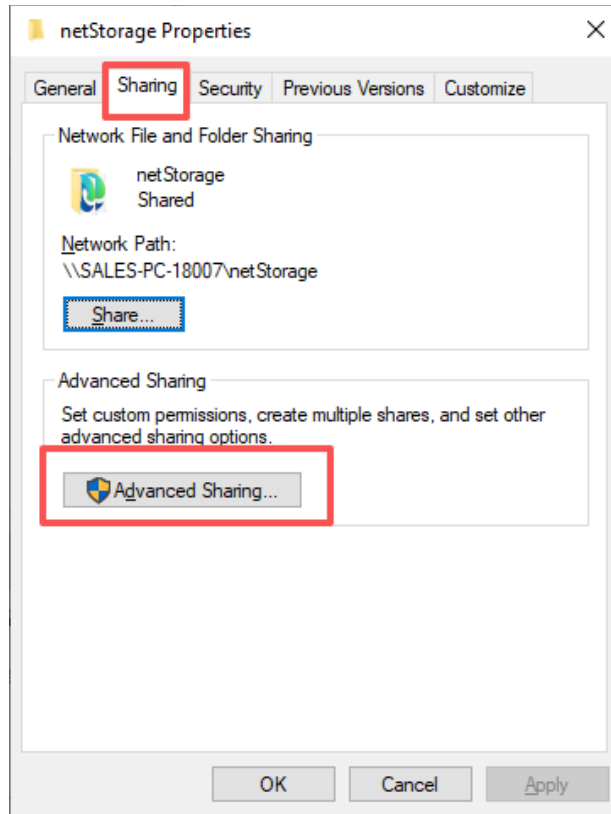


Fig 9: Properties → Sharing → Advanced Sharing

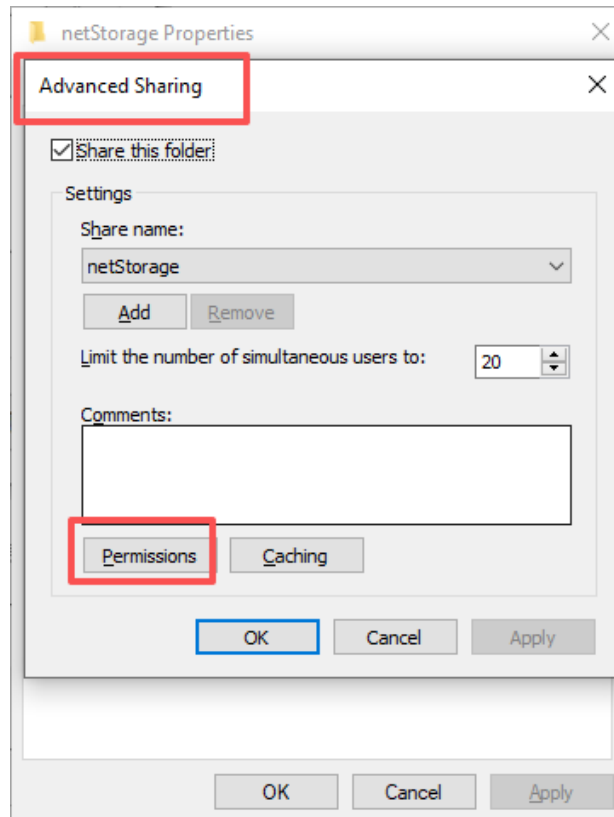


Fig 10: Advanced Sharing → Permissions

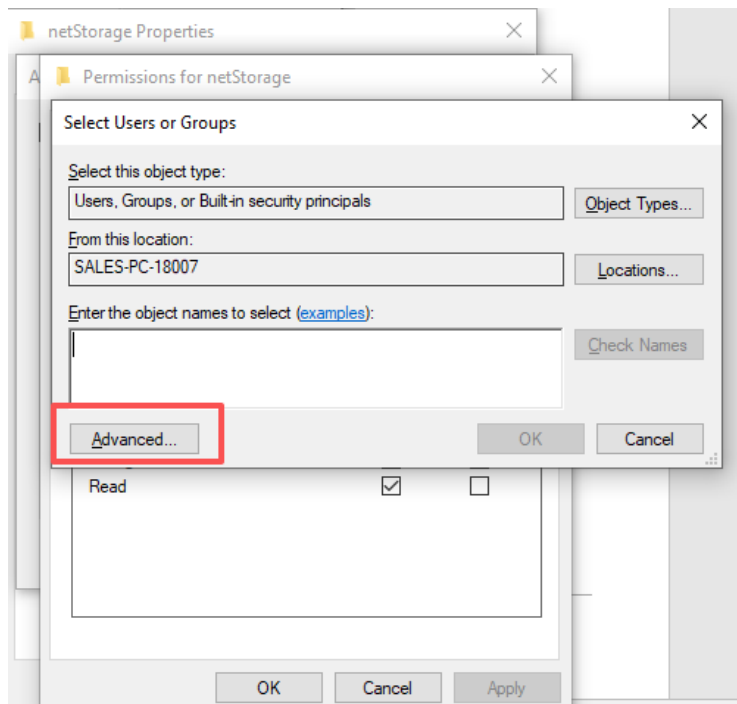


Fig. 11: Click "Add" → "Advanced"

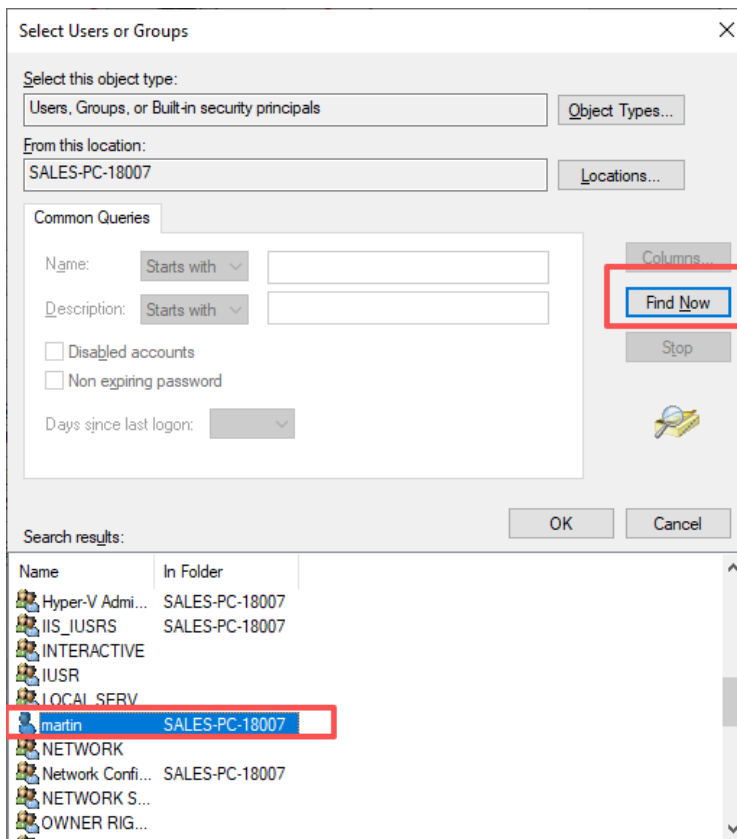


Fig. 12: Select the access user

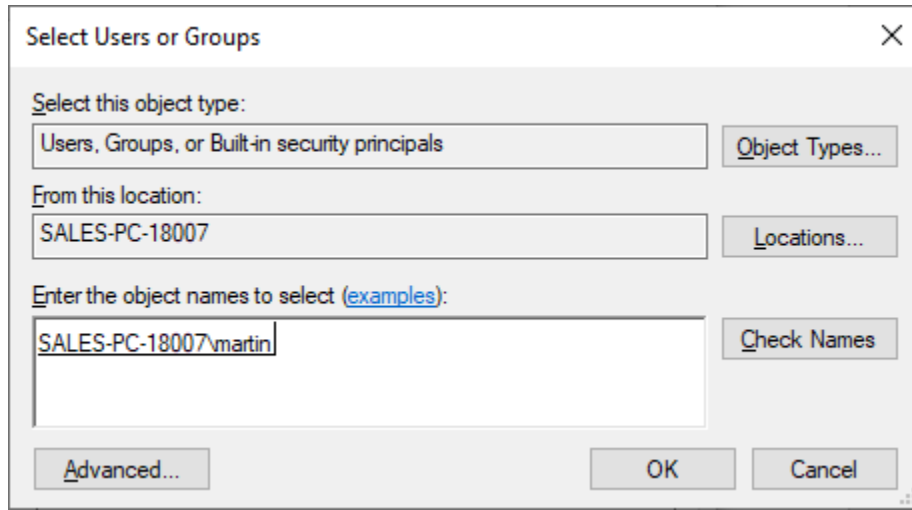


Fig. 13: User added to folder permissions

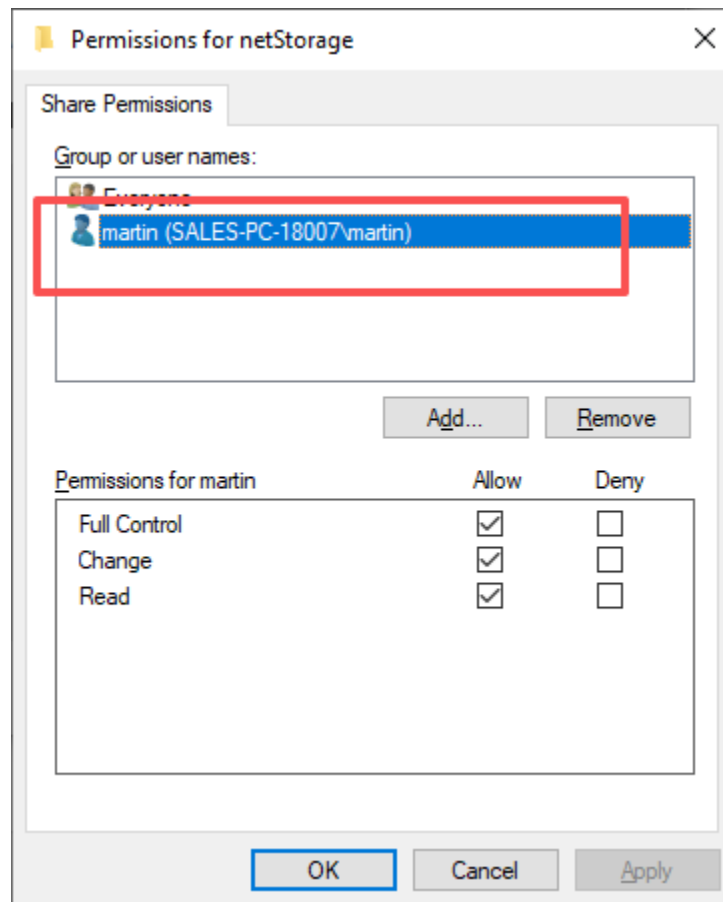


Fig. 14: Folder sharing permissions

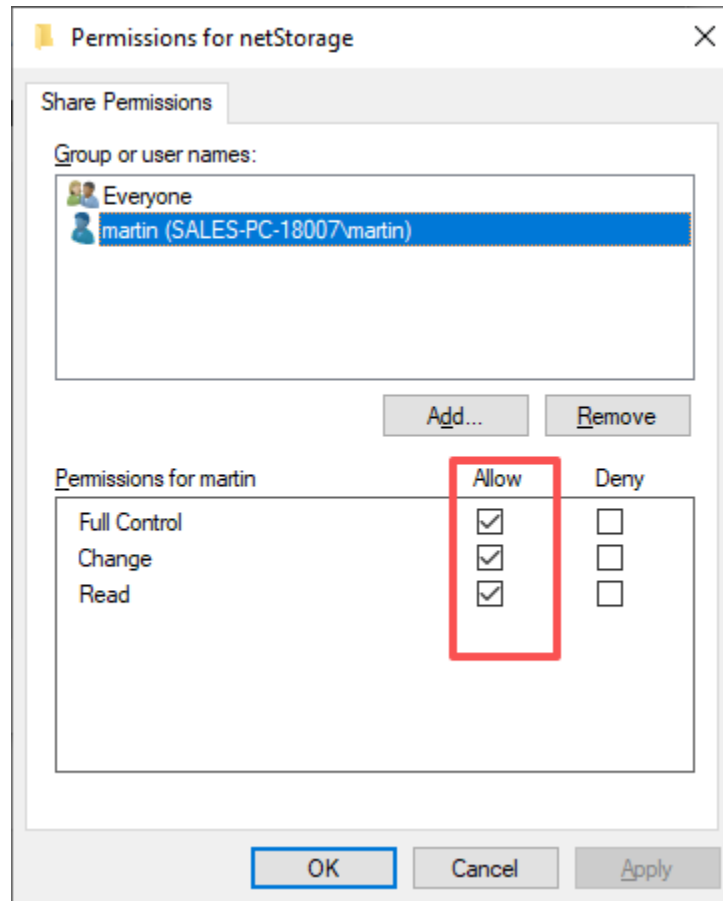


Fig. 15: Grant full control permissions

One more thing: Make sure to create a dedicated user account first. Relying on the *Everyone* group alone will not work for this setup.

Oscilloscope Setup

Navigate to **Function Menu** → **Services** → **SMB File Share** → **Client**. You should see a screen similar to Fig. 16. Enter the following:

- **Server path:** `//[PC IP address]/[shared folder name]` (e.g., `//192.168.1.100/netStorage`)
- **Username:** The account you created
- **Password:** The password for that account

Then click **Connect**.

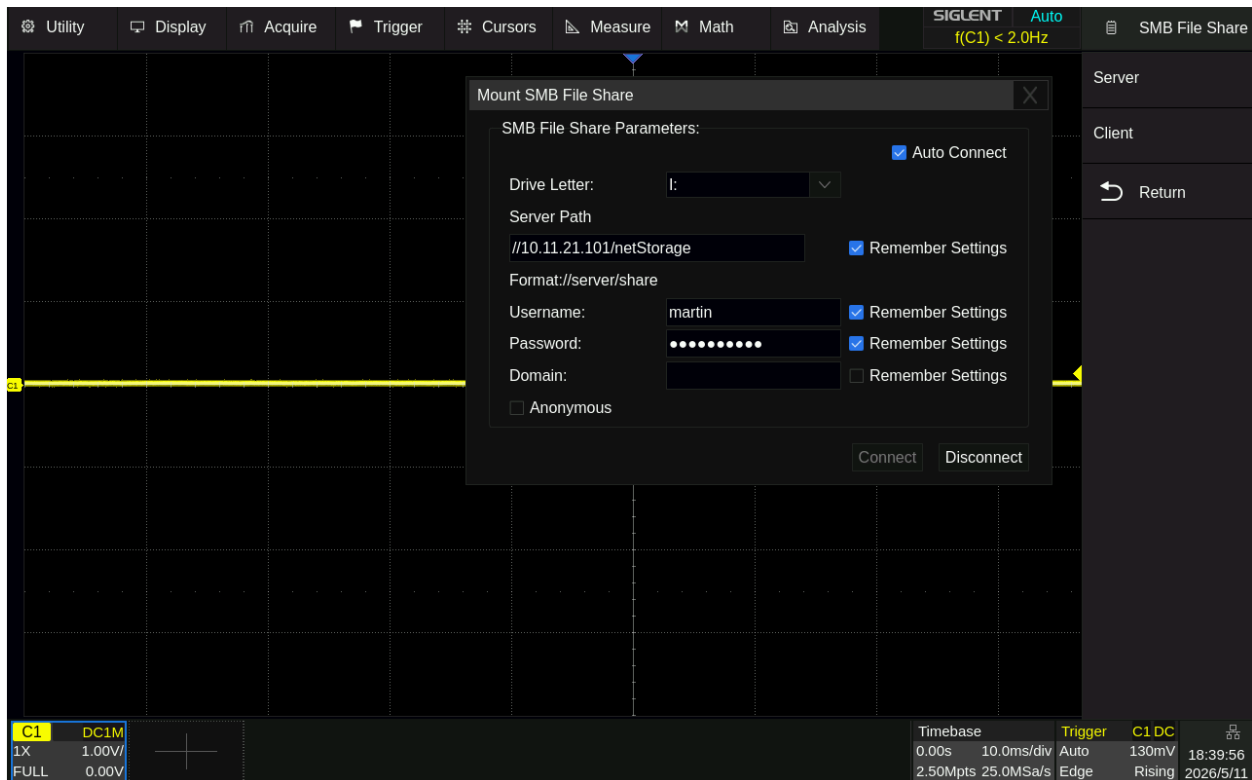


Fig. 16: Oscilloscope SMB client configuration

That's it. Now, whenever you save data or any other file format on the oscilloscope, the netStorage folder will appear as an available save destination. Files will be transferred directly to your PC over the SMB protocol – no USB drive needed.

Note for enterprise users: Your network permissions may require coordination with your IT department. Also, while the steps above describe the standard procedure on Windows 10, the exact menus and options may vary slightly depending on your system version.